

# Unraveling the structural stability and the electronic structure of $\text{ThO}_2$ clusters

**Dataset:**

**Stable structures of the  $\text{Th}_n\text{O}_{2n}$  ( $n = 1 - 8$ ) clusters**

Néstor F. Aguirre<sup>1\*</sup>, Julie Jung<sup>1\*</sup>, and Ping Yang<sup>1†</sup>

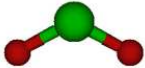
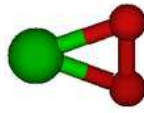
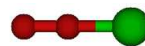
<sup>1</sup> *Theoretical Division, Los Alamos National Laboratory,  
Los Alamos, New Mexico 87545, United States*

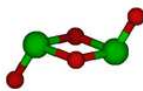
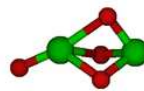
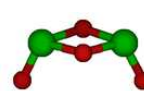
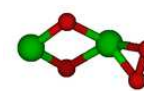
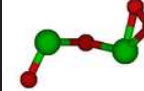
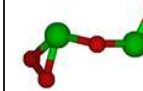
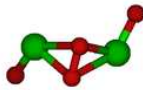
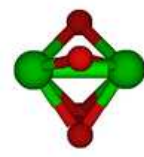
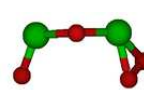
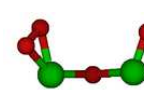
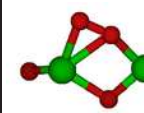
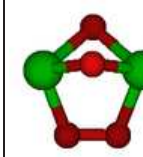
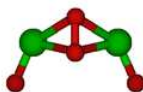
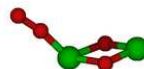
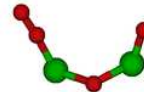
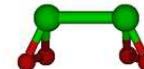
(Dated: January 13, 2020)


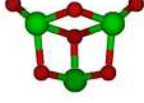
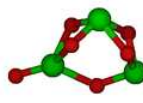
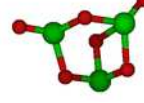
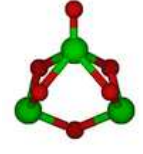

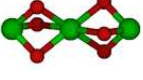
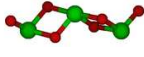
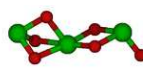
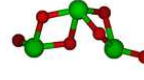
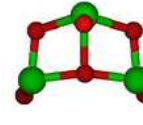
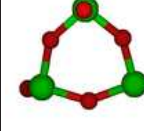
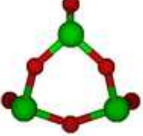
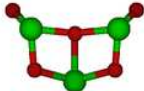
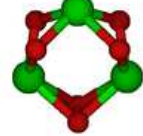
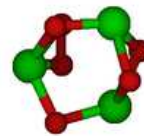
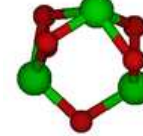
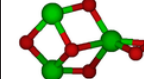
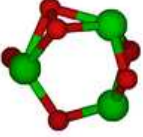
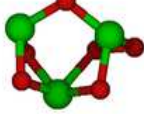
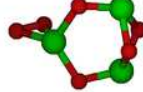


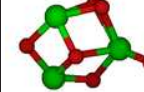
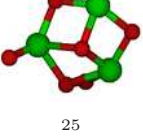
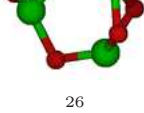
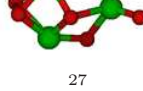

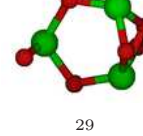
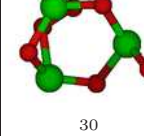
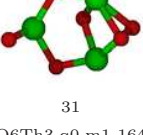
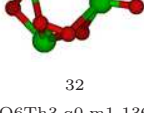
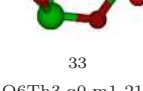
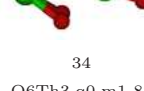
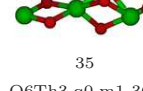
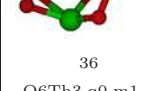
---

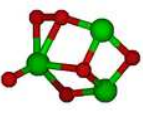

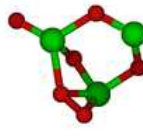
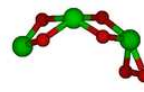
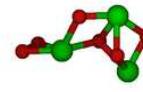
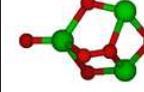
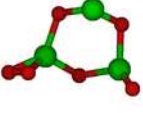
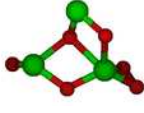
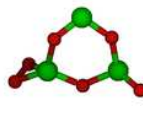
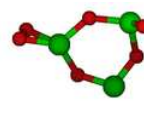
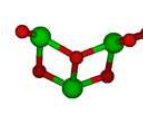
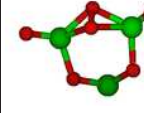
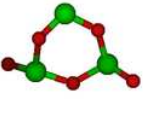
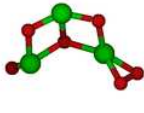
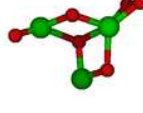
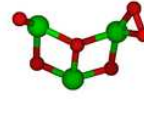
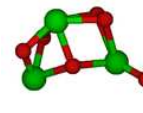

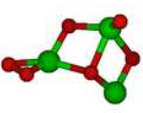
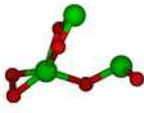
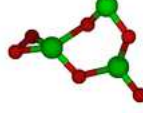
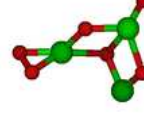

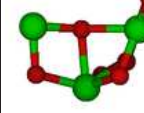
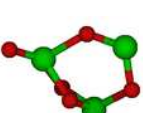
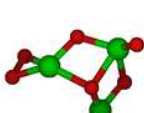
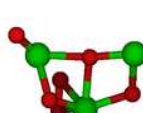
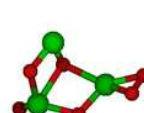
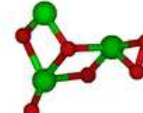
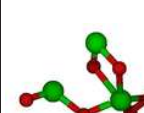
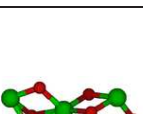
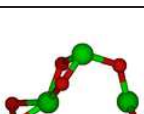
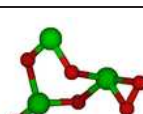
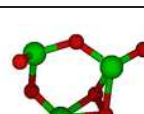
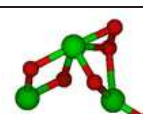
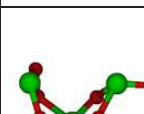
\* NFA and JJ contributed equally


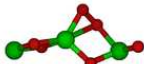
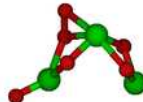
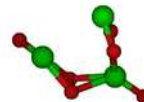
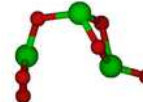
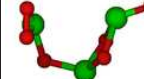
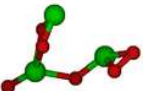


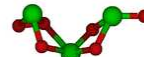
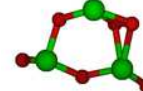
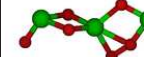
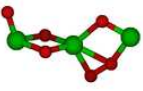
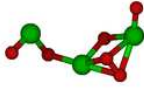
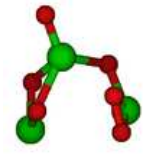
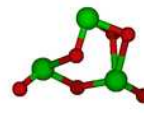
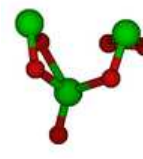
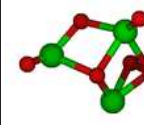
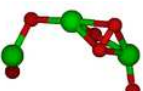
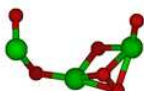
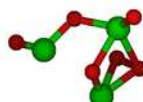

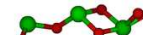
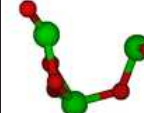
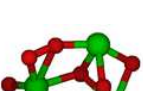
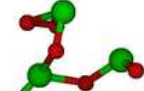
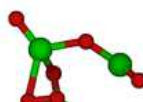
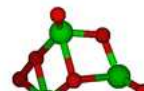

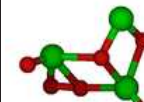
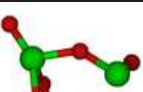
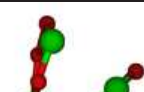
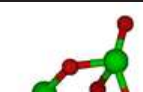



†Electronic address:pyang@lanl.gov

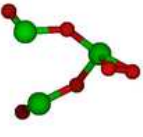

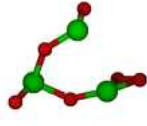
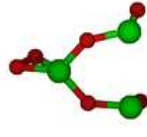
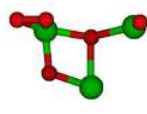
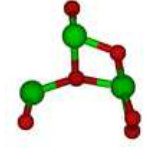
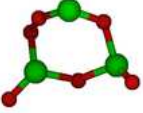
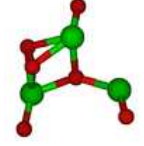
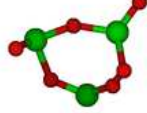
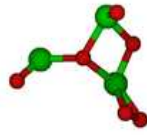
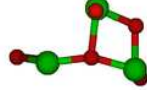
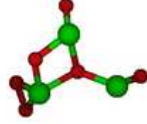
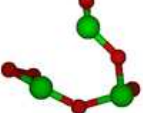
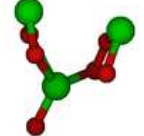
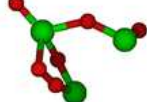
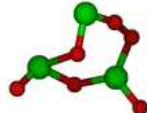

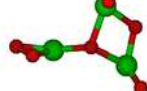
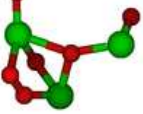
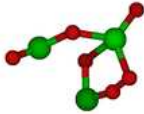
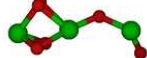
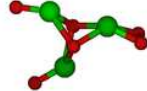
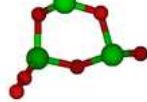
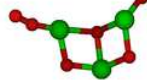
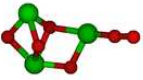
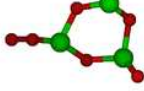
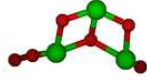
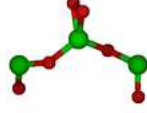
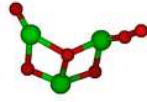
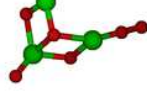
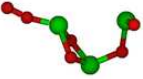

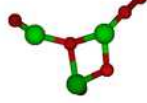
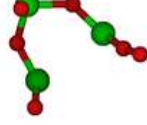
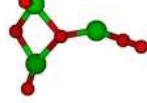
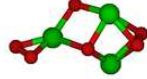
ThO <sub>2</sub>		
		
1 O2Th.q0.m1-2 0.00 eV (C1)	2 O2Th.q0.m1-3 5.14 eV (C1)	3 O2Th.q0.m1-1 7.29 eV (C1)

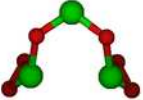
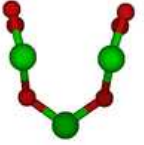
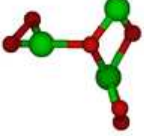
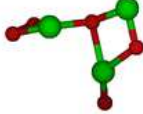
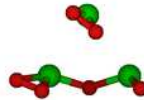
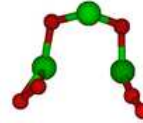
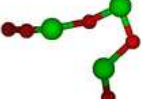

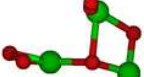
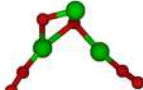
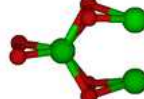
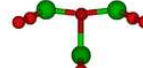
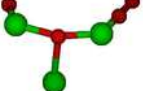
Th <sub>2</sub> O <sub>4</sub>					
					
1 O4Th2.q0.m1-14 0.00 eV (C2H)	2 O4Th2.q0.m1-15 0.12 eV (CS)	3 O4Th2.q0.m1-13 0.16 eV (C2V)	4 O4Th2.q0.m1-6 4.93 eV (C1)	5 O4Th2.q0.m1-11 5.67 eV (C1)	6 O4Th2.q0.m1-5 5.67 eV (C1)
					
7 O4Th2.q0.m1-4 5.76 eV (C2)	8 O4Th2.q0.m1-16 5.78 eV (C2V)	9 O4Th2.q0.m1-12 5.78 eV (C1)	10 O4Th2.q0.m1-10 5.78 eV (C1)	11 O4Th2.q0.m1-9 5.81 eV (C1)	12 O4Th2.q0.m1-17 5.84 eV (C2V)
					
13 O4Th2.q0.m1-1 5.87 eV (CS)	14 O4Th2.q0.m1-2 7.04 eV (CS)	15 O4Th2.q0.m1-7 7.88 eV (C1)	16 O4Th2.q0.m1-8 13.04 eV (C1)		

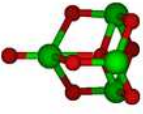
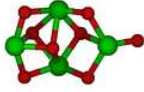
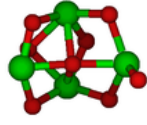
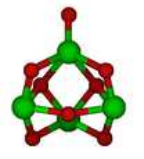

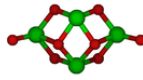
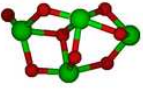
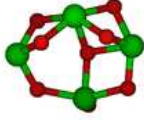
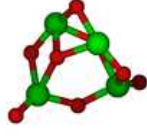

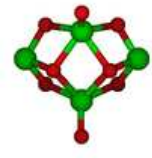
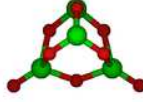

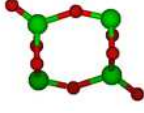

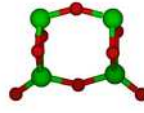
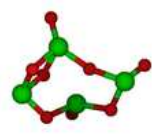
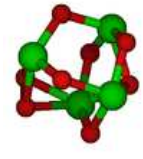
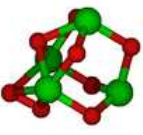
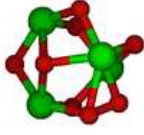
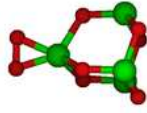
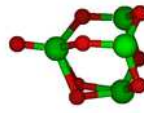
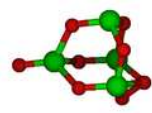
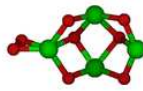
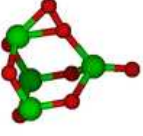
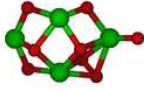
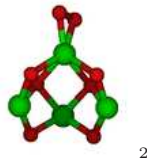
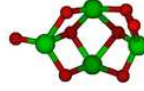
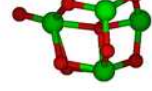
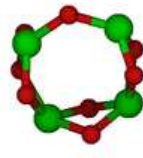
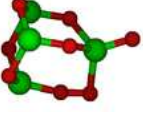
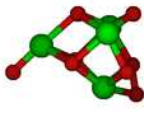
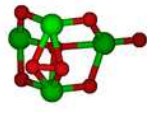
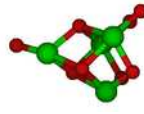
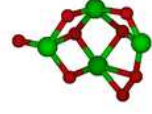
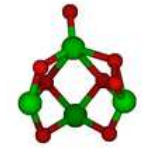
$\text{Th}_3\text{O}_6$					
 <p>1 O6Th3.q0.m1-394 0.00 eV (CS)</p>	 <p>2 O6Th3.q0.m1-11 0.59 eV (CS)</p>	 <p>3 O6Th3.q0.m1-4 0.66 eV (C1)</p>	 <p>4 O6Th3.q0.m1-41 0.70 eV (C1)</p>	 <p>5 O6Th3.q0.m1-123 0.78 eV (C2V)</p>	 <p>6 O6Th3.q0.m1-371 0.81 eV (C1)</p>
 <p>7 O6Th3.q0.m1-321 0.89 eV (C3V)</p>	 <p>8 O6Th3.q0.m1-55 0.90 eV (C1)</p>	 <p>9 O6Th3.q0.m1-69 0.92 eV (C1)</p>	 <p>10 O6Th3.q0.m1-219 1.05 eV (C1)</p>	 <p>11 O6Th3.q0.m1-382 1.49 eV (C1)</p>	 <p>12 O6Th3.q0.m1-135 1.50 eV (C1)</p>
 <p>13 O6Th3.q0.m1-62 1.73 eV (C3V)</p>	 <p>14 O6Th3.q0.m1-105 1.85 eV (CS)</p>	 <p>15 O6Th3.q0.m1-91 4.21 eV (C2V)</p>	 <p>16 O6Th3.q0.m1-95 4.65 eV (CS)</p>	 <p>17 O6Th3.q0.m1-247 4.65 eV (C1)</p>	 <p>18 O6Th3.q0.m1-50 4.79 eV (CS)</p>
 <p>19 O6Th3.q0.m1-171 4.87 eV (C1)</p>	 <p>20 O6Th3.q0.m1-206 4.88 eV (C1)</p>	 <p>21 O6Th3.q0.m1-180 4.91 eV (CS)</p>	 <p>22 O6Th3.q0.m1-360 4.96 eV (C1)</p>	 <p>23 O6Th3.q0.m1-74 5.06 eV (C1)</p>	 <p>24 O6Th3.q0.m1-22 5.16 eV (C1)</p>
 <p>25 O6Th3.q0.m1-391 5.26 eV (C1)</p>	 <p>26 O6Th3.q0.m1-72 5.29 eV (C1)</p>	 <p>27 O6Th3.q0.m1-210 5.39 eV (CS)</p>	 <p>28 O6Th3.q0.m1-189 5.37 eV (C1)</p>	 <p>29 O6Th3.q0.m1-146 5.41 eV (C1)</p>	 <p>30 O6Th3.q0.m1-230 5.48 eV (C1)</p>
 <p>31 O6Th3.q0.m1-164 5.48 eV (CS)</p>	 <p>32 O6Th3.q0.m1-136 5.53 eV (C1)</p>	 <p>33 O6Th3.q0.m1-212 5.54 eV (CS)</p>	 <p>34 O6Th3.q0.m1-87 5.60 eV (C1)</p>	 <p>35 O6Th3.q0.m1-364 5.61 eV (C1)</p>	 <p>36 O6Th3.q0.m1-3 5.64 eV (C1)</p>

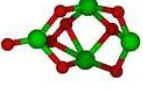
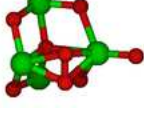
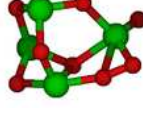

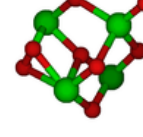
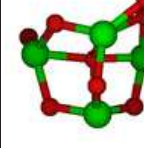

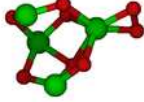

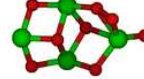
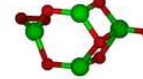
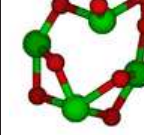
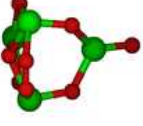

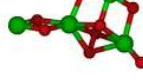
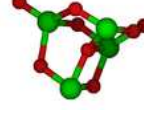
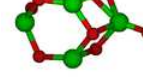
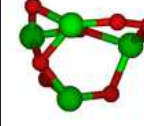
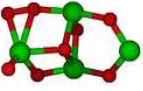
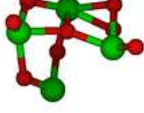
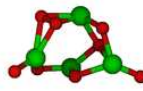
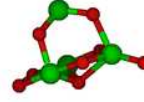
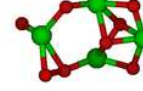
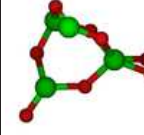
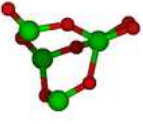
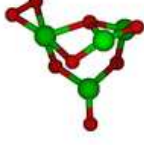
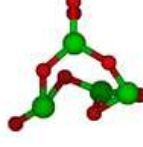
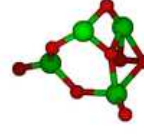
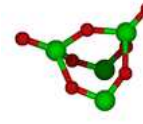
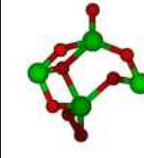
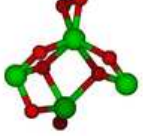

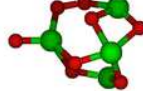
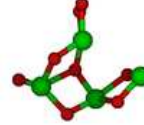
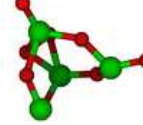
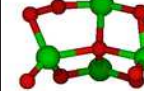
$\text{Th}_3\text{O}_6$ (Continued from previous page)					
					
37 O6Th3.q0.m1-190 5.72 eV (C1)	38 O6Th3.q0.m1-116 5.73 eV (C1)	39 O6Th3.q0.m1-197 5.81 eV (C1)	40 O6Th3.q0.m1-313 5.86 eV (C1)	41 O6Th3.q0.m1-153 5.88 eV (C1)	42 O6Th3.q0.m1-59 5.96 eV (CS)
					
43 O6Th3.q0.m1-126 5.94 eV (C1)	44 O6Th3.q0.m1-372 5.98 eV (C1)	45 O6Th3.q0.m1-113 5.97 eV (C1)	46 O6Th3.q0.m1-27 5.99 eV (C1)	47 O6Th3.q0.m1-19 6.01 eV (C1)	48 O6Th3.q0.m1-308 6.03 eV (C1)
					
49 O6Th3.q0.m1-300 6.03 eV (C1)	50 O6Th3.q0.m1-237 6.04 eV (C1)	51 O6Th3.q0.m1-25 6.06 eV (C1)	52 O6Th3.q0.m1-115 6.05 eV (C1)	53 O6Th3.q0.m1-262 6.09 eV (C1)	54 O6Th3.q0.m1-129 6.11 eV (C1)
					
55 O6Th3.q0.m1-103 6.12 eV (C1)	56 O6Th3.q0.m1-134 6.14 eV (C1)	57 O6Th3.q0.m1-128 6.15 eV (C1)	58 O6Th3.q0.m1-140 6.16 eV (C1)	59 O6Th3.q0.m1-156 6.16 eV (C1)	60 O6Th3.q0.m1-179 6.17 eV (C1)
					
61 O6Th3.q0.m1-124 6.17 eV (C1)	62 O6Th3.q0.m1-17 6.17 eV (C1)	63 O6Th3.q0.m1-252 6.17 eV (C1)	64 O6Th3.q0.m1-312 6.17 eV (C1)	65 O6Th3.q0.m1-182 6.18 eV (C1)	66 O6Th3.q0.m1-106 6.19 eV (C1)
					
67 O6Th3.q0.m1-320 6.20 eV (C1)	68 O6Th3.q0.m1-161 6.20 eV (C1)	69 O6Th3.q0.m1-162 6.20 eV (C1)	70 O6Th3.q0.m1-221 6.20 eV (C1)	71 O6Th3.q0.m1-258 6.22 eV (C1)	72 O6Th3.q0.m1-154 6.24 eV (C1)


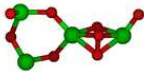
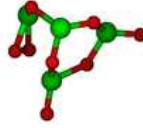
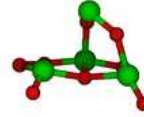
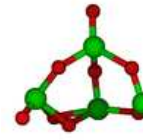
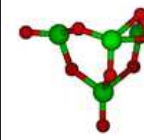
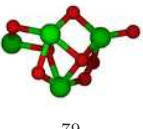

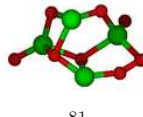
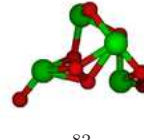
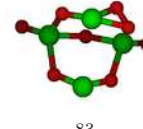
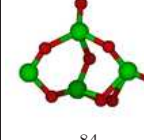
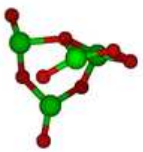
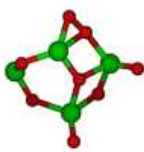
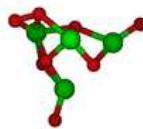
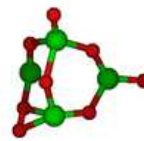
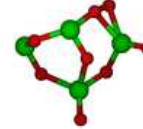
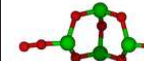
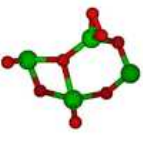
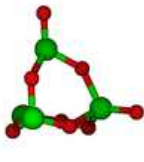
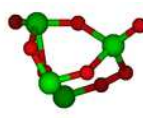
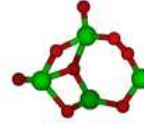
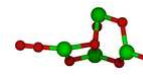
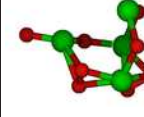
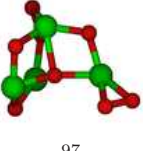
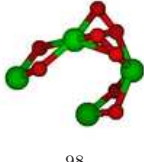
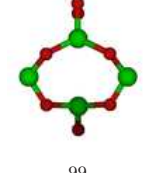
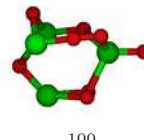
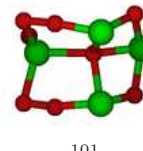
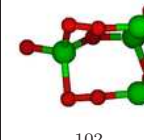
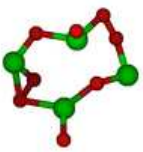
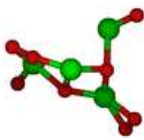
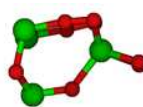
$\text{Th}_3\text{O}_6$ (Continued from previous page)					
 73 O6Th3.q0.m1-366 6.25 eV (C1)	 74 O6Th3.q0.m1-36 6.26 eV (C1)	 75 O6Th3.q0.m1-193 6.29 eV (C1)	 76 O6Th3.q0.m1-160 6.31 eV (C1)	 77 O6Th3.q0.m1-101 6.30 eV (C1)	 78 O6Th3.q0.m1-290 6.31 eV (C1)
 79 O6Th3.q0.m1-316 6.34 eV (C1)	 80 O6Th3.q0.m1-16 6.36 eV (C1)	 81 O6Th3.q0.m1-303 6.33 eV (C1)	 82 O6Th3.q0.m1-301 6.39 eV (C1)	 83 O6Th3.q0.m1-130 6.38 eV (C1)	 84 O6Th3.q0.m1-49 6.52 eV (C1)
 85 O6Th3.q0.m1-148 6.51 eV (C1)	 86 O6Th3.q0.m1-159 6.50 eV (C1)	 87 O6Th3.q0.m1-209 6.52 eV (C1)	 88 O6Th3.q0.m1-283 6.54 eV (C1)	 89 O6Th3.q0.m1-45 6.56 eV (C1)	 90 O6Th3.q0.m1-111 6.55 eV (C1)
 91 O6Th3.q0.m1-351 6.57 eV (C1)	 92 O6Th3.q0.m1-152 6.57 eV (C1)	 93 O6Th3.q0.m1-149 6.62 eV (C1)	 94 O6Th3.q0.m1-122 6.62 eV (C1)	 95 O6Th3.q0.m1-279 6.61 eV (C1)	 96 O6Th3.q0.m1-229 6.61 eV (C1)
 97 O6Th3.q0.m1-66 6.66 eV (C1)	 98 O6Th3.q0.m1-110 6.65 eV (C1)	 99 O6Th3.q0.m1-216 6.66 eV (C1)	 100 O6Th3.q0.m1-2 6.66 eV (C1)	 101 O6Th3.q0.m1-93 6.69 eV (C1)	 102 O6Th3.q0.m1-81 6.72 eV (C1)
 103 O6Th3.q0.m1-125 6.72 eV (C1)	 104 O6Th3.q0.m1-23 6.77 eV (C1)	 105 O6Th3.q0.m1-389 6.77 eV (C1)	 106 O6Th3.q0.m1-248 6.77 eV (C1)	 107 O6Th3.q0.m1-147 6.82 eV (C1)	 108 O6Th3.q0.m1-168 6.86 eV (C1)

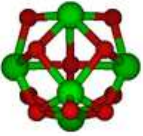
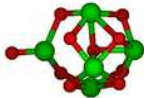

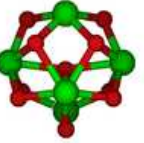
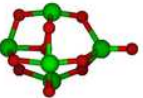
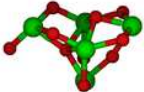
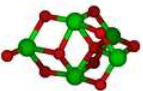
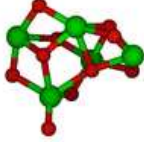
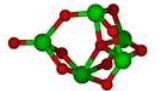

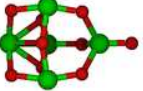
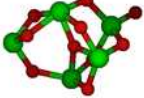
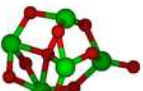
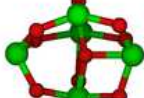
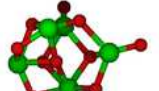
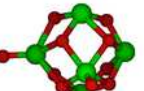
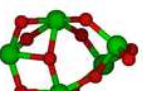
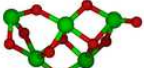
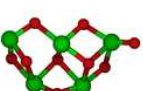
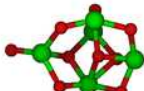
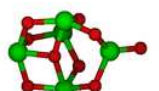
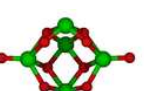
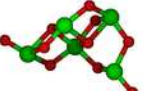
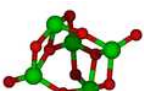
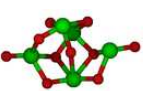
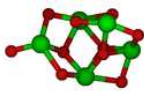

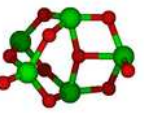
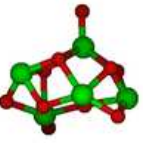
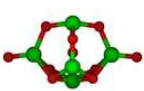

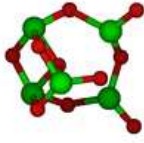
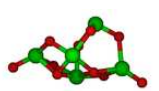
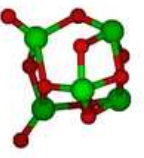

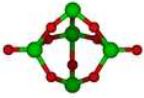
$\text{Th}_3\text{O}_6$ (Continued from previous page)					
					
109 O6Th3.q0.m1-204 6.92 eV (C1)	110 O6Th3.q0.m1-286 6.94 eV (CS)	111 O6Th3.q0.m1-332 7.02 eV (C1)	112 O6Th3.q0.m1-100 7.02 eV (C1)	113 O6Th3.q0.m1-184 7.03 eV (C1)	114 O6Th3.q0.m1-114 7.05 eV (C1)
					
115 O6Th3.q0.m1-205 7.07 eV (C1)	116 O6Th3.q0.m1-245 7.09 eV (C1)	117 O6Th3.q0.m1-70 7.11 eV (C1)	118 O6Th3.q0.m1-335 7.13 eV (C1)	119 O6Th3.q0.m1-117 7.16 eV (C1)	120 O6Th3.q0.m1-158 7.17 eV (C1)
					
121 O6Th3.q0.m1-145 7.19 eV (C1)	122 O6Th3.q0.m1-198 7.23 eV (C1)	123 O6Th3.q0.m1-119 7.24 eV (C1)	124 O6Th3.q0.m1-386 7.25 eV (C1)	125 O6Th3.q0.m1-355 7.26 eV (C1)	126 O6Th3.q0.m1-157 7.30 eV (C1)
					
127 O6Th3.q0.m1-143 7.33 eV (C1)	128 O6Th3.q0.m1-267 7.36 eV (C1)	129 O6Th3.q0.m1-94 7.43 eV (C1)	130 O6Th3.q0.m1-224 7.80 eV (C1)	131 O6Th3.q0.m1-131 8.03 eV (C1)	132 O6Th3.q0.m1-191 8.05 eV (C1)
					
133 O6Th3.q0.m1-278 8.07 eV (C1)	134 O6Th3.q0.m1-121 8.07 eV (C1)	135 O6Th3.q0.m1-104 8.09 eV (C1)	136 O6Th3.q0.m1-345 8.10 eV (C1)	137 O6Th3.q0.m1-181 8.12 eV (C1)	138 O6Th3.q0.m1-139 8.18 eV (C1)
					
139 O6Th3.q0.m1-280 8.20 eV (C1)	140 O6Th3.q0.m1-353 8.29 eV (C1)	141 O6Th3.q0.m1-12 9.21 eV (C1)	142 O6Th3.q0.m1-285 9.24 eV (C1)	143 O6Th3.q0.m1-176 9.34 eV (C1)	144 O6Th3.q0.m1-151 11.94 eV (C1)

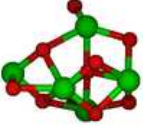
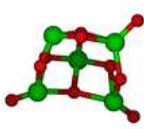
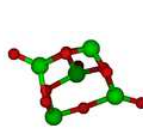
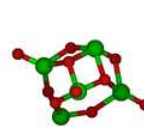
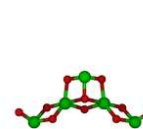
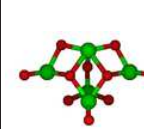
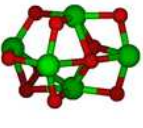


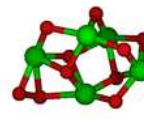
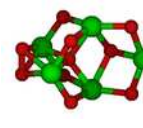
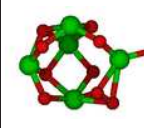
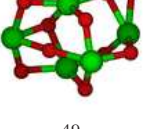
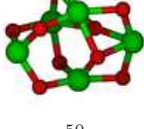
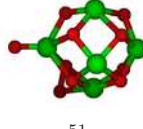

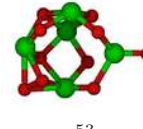


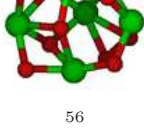
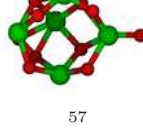
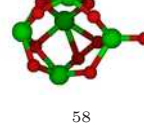
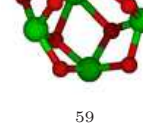
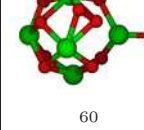
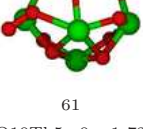

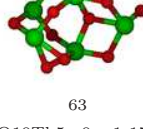
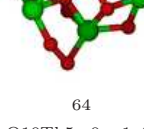
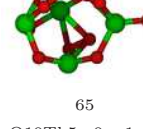
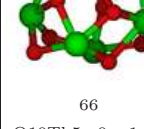
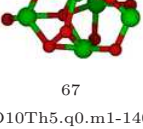
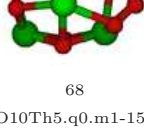
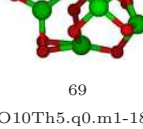
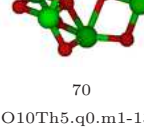
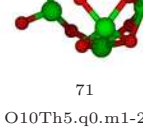
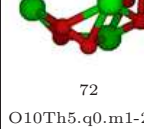
Th <sub>3</sub> O <sub>6</sub> ( <i>Continued from previous page</i> )					
 <p>145 O6Th3.q0.m1-26 12.26 eV (C1)</p>	 <p>146 O6Th3.q0.m1-239 12.33 eV (C1)</p>	 <p>147 O6Th3.q0.m1-96 12.48 eV (C1)</p>	 <p>148 O6Th3.q0.m1-33 12.55 eV (C1)</p>	 <p>149 O6Th3.q0.m1-166 13.78 eV (C1)</p>	 <p>150 O6Th3.q0.m1-64 14.31 eV (C1)</p>
 <p>151 O6Th3.q0.m1-266 14.62 eV (C1)</p>	 <p>152 O6Th3.q0.m1-327 14.67 eV (C1)</p>	 <p>153 O6Th3.q0.m1-217 14.72 eV (C1)</p>	 <p>154 O6Th3.q0.m1-304 16.82 eV (C1)</p>	 <p>155 O6Th3.q0.m1-118 17.71 eV (C1)</p>	 <p>156 O6Th3.q0.m1-343 17.70 eV (C1)</p>
 <p>157 O6Th3.q0.m1-141 17.77 eV (C1)</p>					

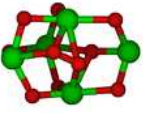
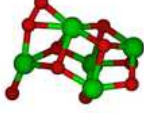
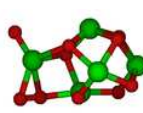
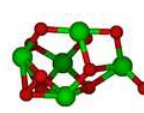
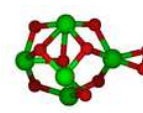
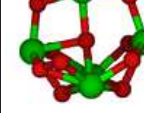
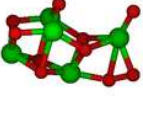

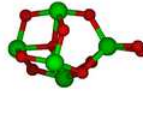
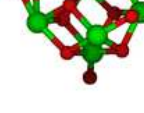
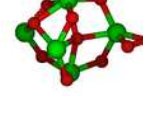

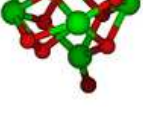
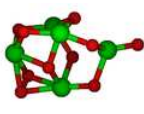
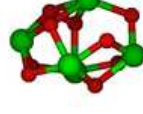
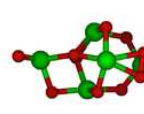
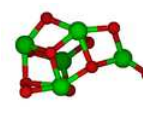
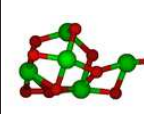
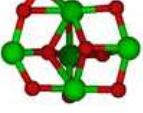
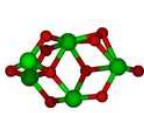
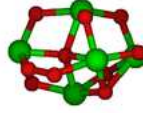
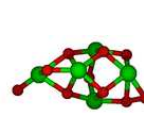
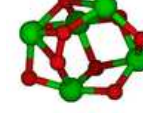

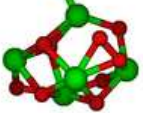
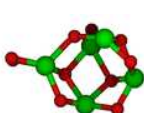
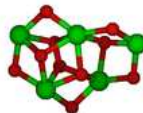
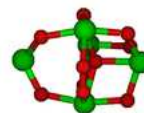
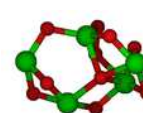

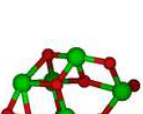
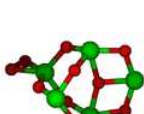
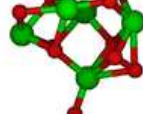
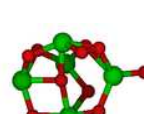
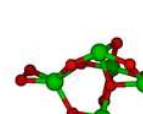

Th <sub>4</sub> O <sub>8</sub>					
 1 O8Th4.q0.m1-19 0.00 eV (C3V)	 2 O8Th4.q0.m1-135 0.01 eV (CS)	 3 O8Th4.q0.m1-111 0.06 eV (CS)	 4 O8Th4.q0.m1-136 0.20 eV (CS)	 5 O8Th4.q0.m1-22 0.47 eV (C2V)	 6 O8Th4.q0.m1-8 0.83 eV (C2V)
 7 O8Th4.q0.m1-99 0.89 eV (C1)	 8 O8Th4.q0.m1-72 1.02 eV (C1)	 9 O8Th4.q0.m1-74 1.35 eV (C2)	 10 O8Th4.q0.m1-53 1.35 eV (C2)	 11 O8Th4.q0.m1-29 1.39 eV (C2V)	 12 O8Th4.q0.m1-3 1.43 eV (C2V)
 13 O8Th4.q0.m1-126 1.60 eV (C1)	 14 O8Th4.q0.m1-131 1.87 eV (D2H)	 15 O8Th4.q0.m1-83 2.13 eV (C1)	 16 O8Th4.q0.m1-41 2.41 eV (C1)	 17 O8Th4.q0.m1-45 2.51 eV (C1)	 18 O8Th4.q0.m1-82 3.69 eV (CS)
 19 O8Th4.q0.m1-12 3.91 eV (CS)	 20 O8Th4.q0.m1-17 4.20 eV (C1)	 21 O8Th4.q0.m1-20 4.32 eV (C1)	 22 O8Th4.q0.m1-108 4.42 eV (CS)	 23 O8Th4.q0.m1-100 4.43 eV (CS)	 24 O8Th4.q0.m1-73 4.61 eV (CS)
 25 O8Th4.q0.m1-15 4.89 eV (C1)	 26 O8Th4.q0.m1-112 4.93 eV (C1)	 27 O8Th4.q0.m1-133 5.14 eV (C1)	 28 O8Th4.q0.m1-48 5.24 eV (C1)	 29 O8Th4.q0.m1-2 5.23 eV (C1)	 30 O8Th4.q0.m1-86 5.42 eV (C1)
 31 O8Th4.q0.m1-121 5.41 eV (CS)	 32 O8Th4.q0.m1-37 5.45 eV (C1)	 33 O8Th4.q0.m1-89 5.46 eV (CS)	 34 O8Th4.q0.m1-43 5.47 eV (C1)	 35 O8Th4.q0.m1-104 5.53 eV (C1)	 36 O8Th4.q0.m1-76 5.53 eV (C1)

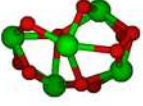
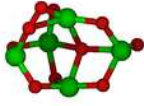
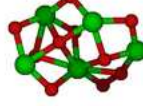

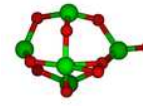
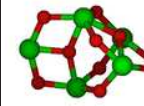
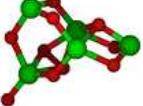
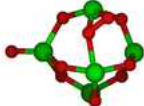
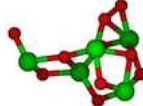
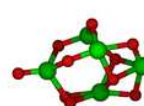

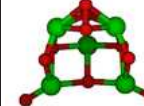
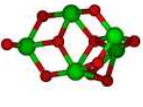
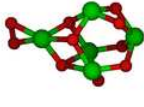
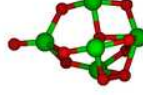
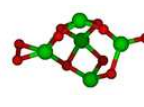

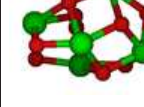
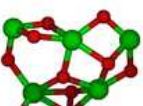
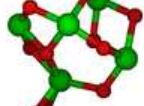
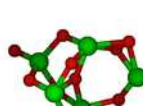
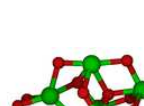
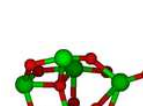
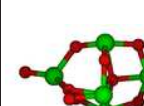
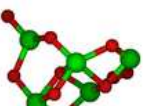
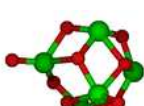
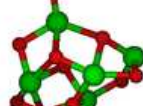
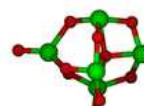
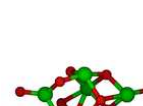

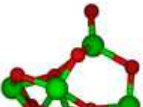
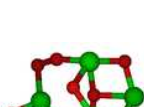
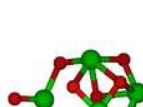


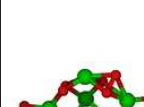
$\text{Th}_4\text{O}_8$ (Continued from previous page)					
					
37 O8Th4.q0.m1-28 5.53 eV (C1)	38 O8Th4.q0.m1-117 5.56 eV (CS)	39 O8Th4.q0.m1-106 5.65 eV (C1)	40 O8Th4.q0.m1-107 5.69 eV (C1)	41 O8Th4.q0.m1-59 5.72 eV (C1)	42 O8Th4.q0.m1-132 5.81 eV (C1)
					
43 O8Th4.q0.m1-30 5.87 eV (C1)	44 O8Th4.q0.m1-23 5.93 eV (C1)	45 O8Th4.q0.m1-34 5.93 eV (C1)	46 O8Th4.q0.m1-54 5.98 eV (C1)	47 O8Th4.q0.m1-95 6.08 eV (C1)	48 O8Th4.q0.m1-101 6.13 eV (C1)
					
49 O8Th4.q0.m1-63 6.12 eV (CS)	50 O8Th4.q0.m1-84 6.25 eV (C1)	51 O8Th4.q0.m1-52 6.28 eV (C1)	52 O8Th4.q0.m1-88 6.29 eV (C1)	53 O8Th4.q0.m1-10 6.29 eV (C1)	54 O8Th4.q0.m1-11 6.41 eV (C1)
					
55 O8Th4.q0.m1-102 6.40 eV (C1)	56 O8Th4.q0.m1-114 6.49 eV (C1)	57 O8Th4.q0.m1-122 6.51 eV (C1)	58 O8Th4.q0.m1-46 6.63 eV (C1)	59 O8Th4.q0.m1-85 6.65 eV (C1)	60 O8Th4.q0.m1-55 6.65 eV (C1)
					
61 O8Th4.q0.m1-130 6.65 eV (C1)	62 O8Th4.q0.m1-25 6.68 eV (C1)	63 O8Th4.q0.m1-40 6.68 eV (C1)	64 O8Th4.q0.m1-81 6.79 eV (C1)	65 O8Th4.q0.m1-33 6.78 eV (C1)	66 O8Th4.q0.m1-128 6.82 eV (C1)
					
67 O8Th4.q0.m1-1 6.82 eV (C1)	68 O8Th4.q0.m1-13 6.81 eV (C1)	69 O8Th4.q0.m1-64 6.93 eV (C1)	70 O8Th4.q0.m1-62 6.94 eV (C1)	71 O8Th4.q0.m1-70 6.93 eV (C1)	72 O8Th4.q0.m1-68 6.99 eV (C1)

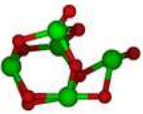
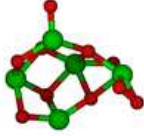
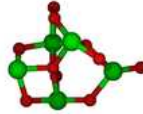

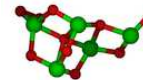
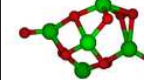
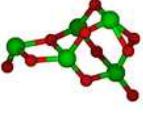
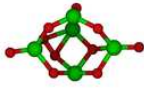
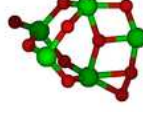
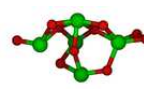
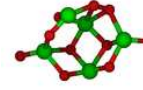
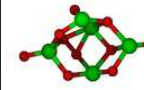

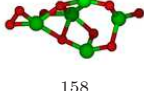

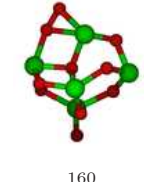
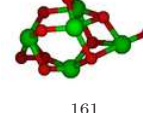
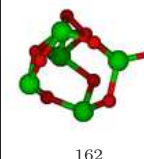
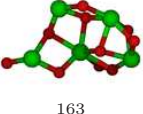
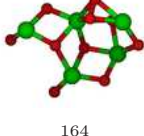
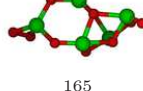
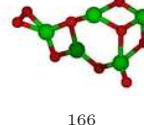
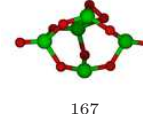
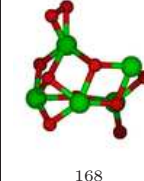
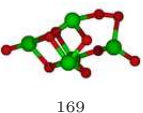
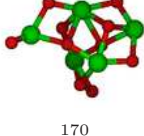
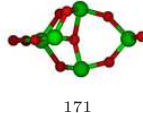
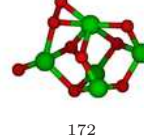
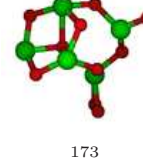

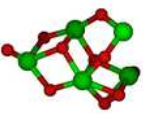



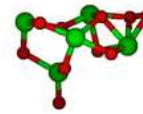
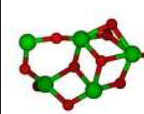
Th <sub>4</sub> O <sub>8</sub> (Continued from previous page)					
 73 O8Th4.q0.m1-56 7.00 eV (C1)	 74 O8Th4.q0.m1-71 7.00 eV (C1)	 75 O8Th4.q0.m1-125 7.01 eV (C1)	 76 O8Th4.q0.m1-44 7.03 eV (C1)	 77 O8Th4.q0.m1-90 7.02 eV (C1)	 78 O8Th4.q0.m1-7 7.04 eV (C1)
 79 O8Th4.q0.m1-105 7.09 eV (C1)	 80 O8Th4.q0.m1-66 7.05 eV (C1)	 81 O8Th4.q0.m1-79 7.07 eV (C1)	 82 O8Th4.q0.m1-65 7.08 eV (C1)	 83 O8Th4.q0.m1-97 7.17 eV (C1)	 84 O8Th4.q0.m1-47 7.21 eV (C1)
 85 O8Th4.q0.m1-27 7.23 eV (C1)	 86 O8Th4.q0.m1-113 7.30 eV (C1)	 87 O8Th4.q0.m1-26 7.34 eV (C1)	 88 O8Th4.q0.m1-4 7.85 eV (C1)	 89 O8Th4.q0.m1-49 7.92 eV (C1)	 90 O8Th4.q0.m1-16 7.98 eV (CS)
 91 O8Th4.q0.m1-120 8.04 eV (C1)	 92 O8Th4.q0.m1-14 8.06 eV (C1)	 93 O8Th4.q0.m1-109 8.29 eV (C1)	 94 O8Th4.q0.m1-129 8.36 eV (C1)	 95 O8Th4.q0.m1-103 8.42 eV (C1)	 96 O8Th4.q0.m1-123 10.43 eV (C1)
 97 O8Th4.q0.m1-91 11.81 eV (C1)	 98 O8Th4.q0.m1-9 12.38 eV (CS)	 99 O8Th4.q0.m1-75 12.50 eV (C1)	 100 O8Th4.q0.m1-110 12.56 eV (C1)	 101 O8Th4.q0.m1-35 13.10 eV (CS)	 102 O8Th4.q0.m1-36 13.13 eV (CS)
 103 O8Th4.q0.m1-77 13.93 eV (C1)	 104 O8Th4.q0.m1-92 14.46 eV (C1)	 105 O8Th4.q0.m1-67 19.39 eV (C1)			

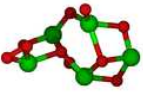
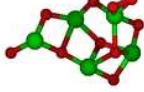
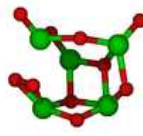


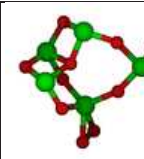
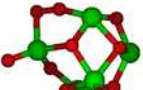
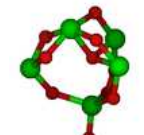
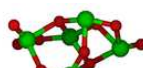

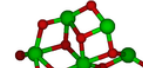
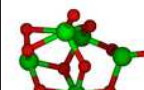
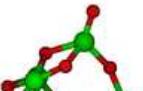

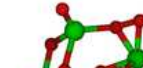
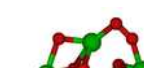

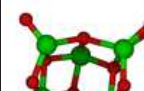
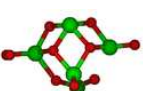
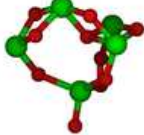
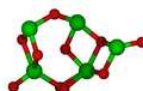
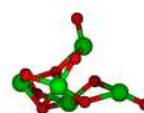

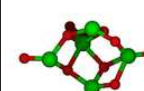
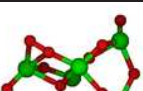
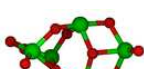
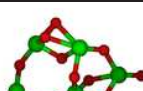
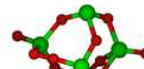
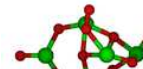
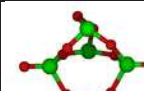
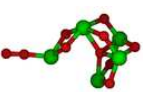
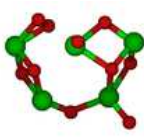
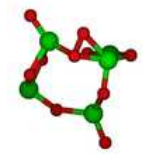
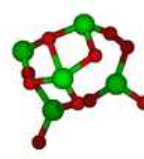
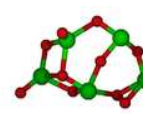
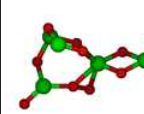
Th <sub>5</sub> O <sub>10</sub>					
					
1 O10Th5.q0.m1-93 0.00 eV (C4V)	2 O10Th5.q0.m1-265 0.24 eV (CS)	3 O10Th5.q0.m1-34 0.29 eV (CS)	4 O10Th5.q0.m1-187 0.43 eV (CS)	5 O10Th5.q0.m1-242 0.68 eV (CS)	6 O10Th5.q0.m1-255 0.84 eV (CS)
					
7 O10Th5.q0.m1-110 0.86 eV (CS)	8 O10Th5.q0.m1-70 1.13 eV (C1)	9 O10Th5.q0.m1-224 1.13 eV (C1)	10 O10Th5.q0.m1-250 1.19 eV (C1)	11 O10Th5.q0.m1-161 1.27 eV (C3V)	12 O10Th5.q0.m1-27 1.32 eV (C1)
					
13 O10Th5.q0.m1-57 1.44 eV (C1)	14 O10Th5.q0.m1-113 1.51 eV (CS)	15 O10Th5.q0.m1-149 1.73 eV (C1)	16 O10Th5.q0.m1-68 1.79 eV (CS)	17 O10Th5.q0.m1-218 1.81 eV (C1)	18 O10Th5.q0.m1-268 1.85 eV (C1)
					
19 O10Th5.q0.m1-216 1.85 eV (C1)	20 O10Th5.q0.m1-121 1.84 eV (C1)	21 O10Th5.q0.m1-109 1.85 eV (CS)	22 O10Th5.q0.m1-56 1.90 eV (C2V)	23 O10Th5.q0.m1-37 1.92 eV (C1)	24 O10Th5.q0.m1-232 1.95 eV (C2)
					
25 O10Th5.q0.m1-210 2.03 eV (C1)	26 O10Th5.q0.m1-41 2.06 eV (C1)	27 O10Th5.q0.m1-199 2.11 eV (C1)	28 O10Th5.q0.m1-256 2.13 eV (CS)	29 O10Th5.q0.m1-163 2.23 eV (C1)	30 O10Th5.q0.m1-166 2.23 eV (CS)
					
31 O10Th5.q0.m1-119 2.24 eV (C2)	32 O10Th5.q0.m1-168 2.28 eV (CS)	33 O10Th5.q0.m1-225 2.35 eV (C1)	34 O10Th5.q0.m1-55 2.52 eV (CS)	35 O10Th5.q0.m1-214 2.80 eV (C1)	36 O10Th5.q0.m1-155 2.84 eV (C2V)

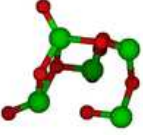

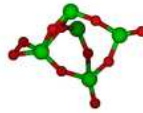
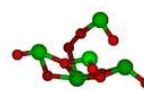
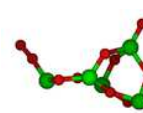
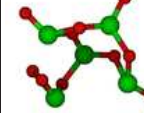

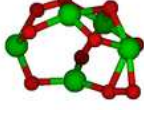
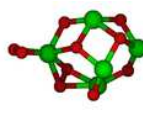
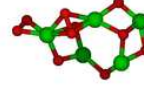
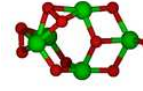
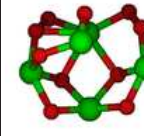
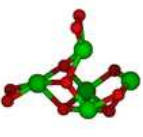


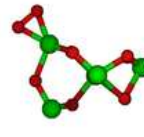



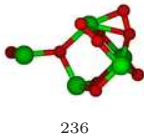
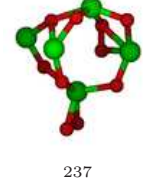
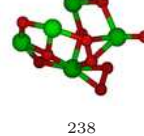



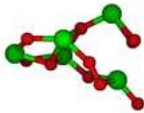

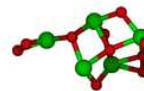
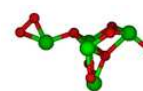
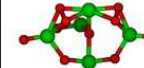
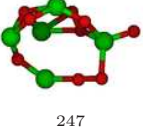
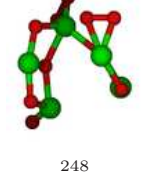
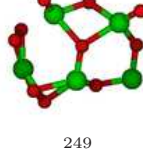
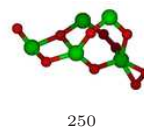
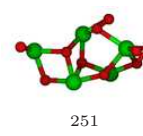
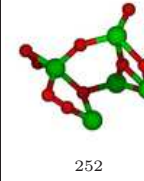
Th <sub>5</sub> O <sub>10</sub> (Continued from previous page)					
 37 O10Th5.q0.m1-51 2.92 eV (C1)	 38 O10Th5.q0.m1-169 2.99 eV (C1)	 39 O10Th5.q0.m1-235 3.02 eV (C1)	 40 O10Th5.q0.m1-118 3.03 eV (C1)	 41 O10Th5.q0.m1-241 3.33 eV (C1)	 42 O10Th5.q0.m1-108 3.51 eV (C1)
 43 O10Th5.q0.m1-249 4.72 eV (C1)	 44 O10Th5.q0.m1-132 4.90 eV (C1)	 45 O10Th5.q0.m1-99 5.02 eV (CS)	 46 O10Th5.q0.m1-139 5.02 eV (C1)	 47 O10Th5.q0.m1-117 5.13 eV (CS)	 48 O10Th5.q0.m1-31 5.14 eV (C1)
 49 O10Th5.q0.m1-25 5.20 eV (C1)	 50 O10Th5.q0.m1-128 5.24 eV (C1)	 51 O10Th5.q0.m1-146 5.25 eV (C1)	 52 O10Th5.q0.m1-95 5.29 eV (C1)	 53 O10Th5.q0.m1-180 5.30 eV (C1)	 54 O10Th5.q0.m1-176 5.34 eV (C1)
 55 O10Th5.q0.m1-186 5.35 eV (C1)	 56 O10Th5.q0.m1-79 5.38 eV (C1)	 57 O10Th5.q0.m1-131 5.36 eV (C1)	 58 O10Th5.q0.m1-115 5.41 eV (C1)	 59 O10Th5.q0.m1-42 5.56 eV (C1)	 60 O10Th5.q0.m1-237 5.54 eV (C1)
 61 O10Th5.q0.m1-72 5.56 eV (C1)	 62 O10Th5.q0.m1-52 5.57 eV (C1)	 63 O10Th5.q0.m1-171 5.57 eV (C1)	 64 O10Th5.q0.m1-47 5.60 eV (C1)	 65 O10Th5.q0.m1-61 5.59 eV (C1)	 66 O10Th5.q0.m1-74 5.67 eV (C1)
 67 O10Th5.q0.m1-140 5.66 eV (C1)	 68 O10Th5.q0.m1-151 5.73 eV (C1)	 69 O10Th5.q0.m1-188 5.76 eV (CS)	 70 O10Th5.q0.m1-130 5.78 eV (CS)	 71 O10Th5.q0.m1-231 5.81 eV (C1)	 72 O10Th5.q0.m1-251 5.92 eV (C1)

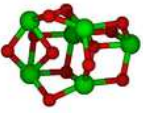
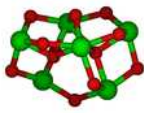
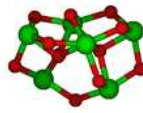

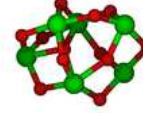
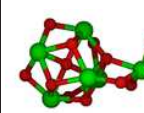
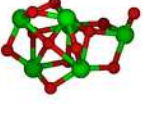
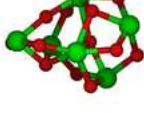
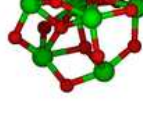
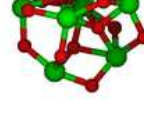
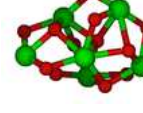
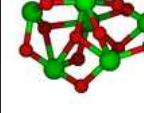
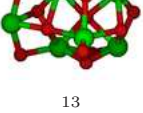
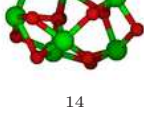
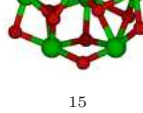
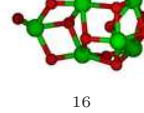
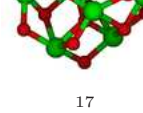
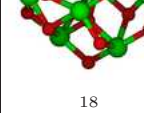
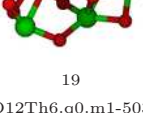
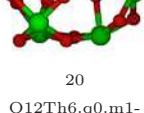
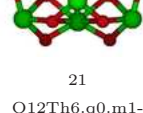
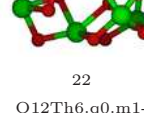
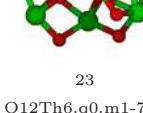
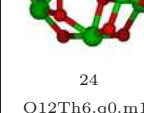

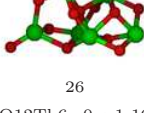
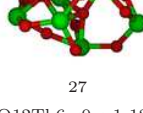
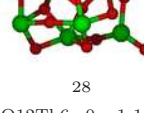
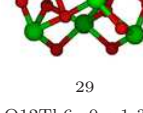
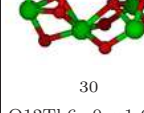

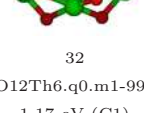
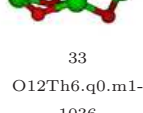
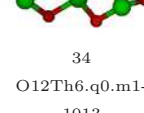
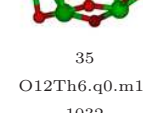
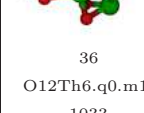
$\text{Th}_5\text{O}_{10}$ (Continued from previous page)					
					
73 O10Th5.q0.m1-92 5.92 eV (C1)	74 O10Th5.q0.m1-62 5.92 eV (C1)	75 O10Th5.q0.m1-145 5.95 eV (C1)	76 O10Th5.q0.m1-152 5.95 eV (C1)	77 O10Th5.q0.m1-1 5.96 eV (C1)	78 O10Th5.q0.m1-211 5.96 eV (C1)
					
79 O10Th5.q0.m1-32 6.04 eV (C1)	80 O10Th5.q0.m1-20 6.05 eV (C1)	81 O10Th5.q0.m1-17 6.04 eV (C1)	82 O10Th5.q0.m1-124 6.07 eV (C1)	83 O10Th5.q0.m1-71 6.10 eV (C1)	84 O10Th5.q0.m1-63 6.09 eV (C1)
					
85 O10Th5.q0.m1-122 6.11 eV (C1)	86 O10Th5.q0.m1-85 6.13 eV (C1)	87 O10Th5.q0.m1-59 6.17 eV (C1)	88 O10Th5.q0.m1-78 6.16 eV (C1)	89 O10Th5.q0.m1-58 6.20 eV (C1)	90 O10Th5.q0.m1-141 6.21 eV (C1)
					
91 O10Th5.q0.m1-138 6.23 eV (C1)	92 O10Th5.q0.m1-246 6.25 eV (C1)	93 O10Th5.q0.m1-123 6.24 eV (C1)	94 O10Th5.q0.m1-98 6.31 eV (C1)	95 O10Th5.q0.m1-60 6.34 eV (C1)	96 O10Th5.q0.m1-13 6.35 eV (C1)
					
97 O10Th5.q0.m1-147 6.35 eV (C1)	98 O10Th5.q0.m1-136 6.35 eV (C1)	99 O10Th5.q0.m1-201 6.38 eV (C1)	100 O10Th5.q0.m1-120 6.41 eV (CS)	101 O10Th5.q0.m1-202 6.41 eV (C1)	102 O10Th5.q0.m1-179 6.38 eV (C1)
					
103 O10Th5.q0.m1-81 6.40 eV (C1)	104 O10Th5.q0.m1-182 6.38 eV (CS)	105 O10Th5.q0.m1-133 6.43 eV (C1)	106 O10Th5.q0.m1-104 6.43 eV (C1)	107 O10Th5.q0.m1-181 6.44 eV (C1)	108 O10Th5.q0.m1-116 6.46 eV (C1)

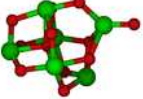
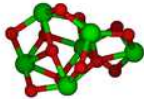
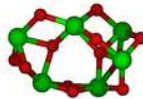
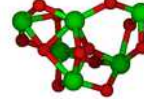
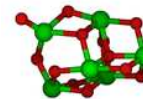
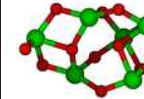
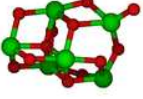
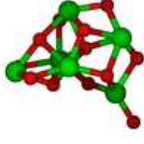
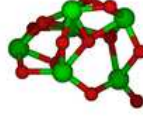
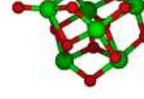
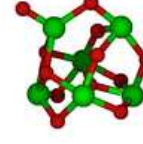

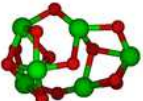
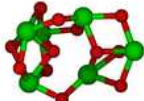
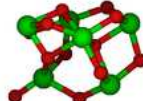

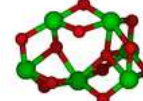
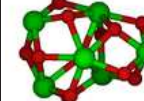
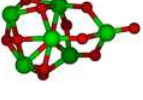
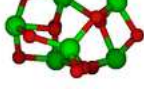
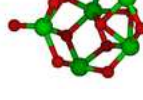
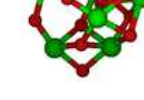
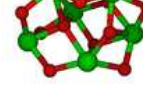
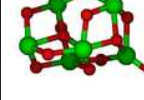
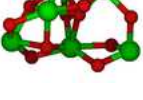
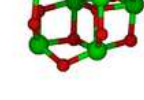
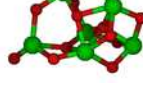
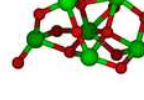
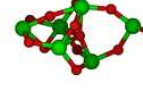
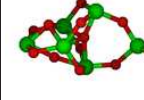
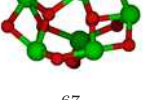
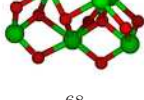
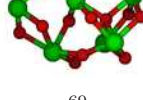
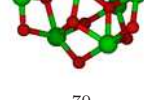

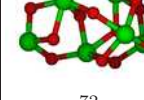
$\text{Th}_5\text{O}_{10}$ (Continued from previous page)					
 109 O10Th5.q0.m1-40 6.50 eV (C1)	 110 O10Th5.q0.m1-111 6.45 eV (C1)	 111 O10Th5.q0.m1-69 6.50 eV (C1)	 112 O10Th5.q0.m1-148 6.49 eV (C1)	 113 O10Th5.q0.m1-164 6.48 eV (CS)	 114 O10Th5.q0.m1-262 6.52 eV (CS)
 115 O10Th5.q0.m1-100 6.52 eV (C1)	 116 O10Th5.q0.m1-102 6.52 eV (C1)	 117 O10Th5.q0.m1-173 6.55 eV (C1)	 118 O10Th5.q0.m1-221 6.56 eV (C1)	 119 O10Th5.q0.m1-29 6.60 eV (C1)	 120 O10Th5.q0.m1-33 6.63 eV (C1)
 121 O10Th5.q0.m1-106 6.65 eV (C1)	 122 O10Th5.q0.m1-261 6.68 eV (C1)	 123 O10Th5.q0.m1-43 6.67 eV (C1)	 124 O10Th5.q0.m1-198 6.68 eV (C1)	 125 O10Th5.q0.m1-16 6.68 eV (C1)	 126 O10Th5.q0.m1-134 6.68 eV (C1)
 127 O10Th5.q0.m1-229 6.73 eV (C1)	 128 O10Th5.q0.m1-137 6.73 eV (C1)	 129 O10Th5.q0.m1-227 6.74 eV (C1)	 130 O10Th5.q0.m1-76 6.76 eV (C1)	 131 O10Th5.q0.m1-26 6.74 eV (C1)	 132 O10Th5.q0.m1-35 6.75 eV (CS)
 133 O10Th5.q0.m1-5 6.76 eV (C1)	 134 O10Th5.q0.m1-190 6.80 eV (C1)	 135 O10Th5.q0.m1-87 6.82 eV (C1)	 136 O10Th5.q0.m1-36 6.88 eV (C1)	 137 O10Th5.q0.m1-89 6.91 eV (C1)	 138 O10Th5.q0.m1-162 6.91 eV (C1)
 139 O10Th5.q0.m1-28 6.95 eV (C1)	 140 O10Th5.q0.m1-244 6.96 eV (C1)	 141 O10Th5.q0.m1-220 6.99 eV (C1)	 142 O10Th5.q0.m1-142 6.99 eV (C1)	 143 O10Th5.q0.m1-30 7.01 eV (CS)	 144 O10Th5.q0.m1-236 7.00 eV (C1)

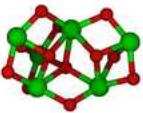
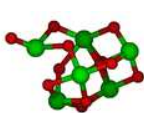
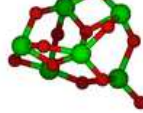
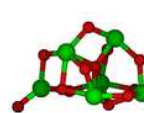
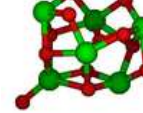
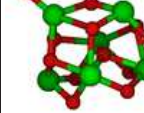
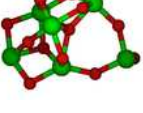
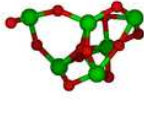
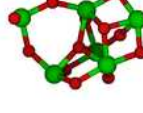
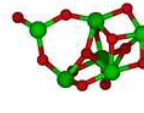
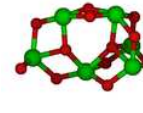
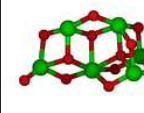
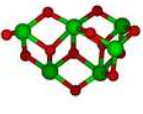
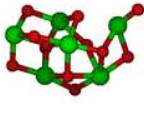
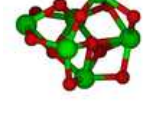
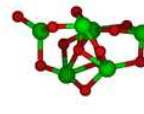
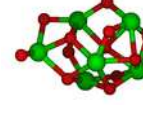
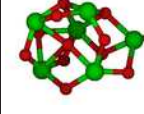
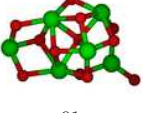
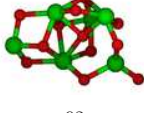
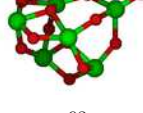
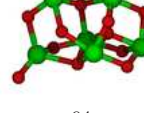
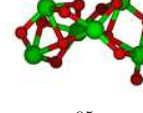
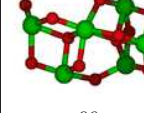
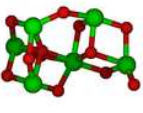
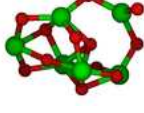
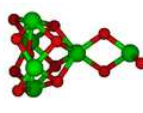
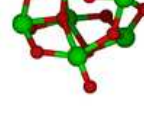
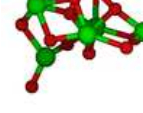
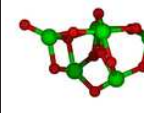
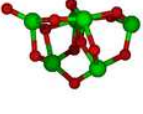
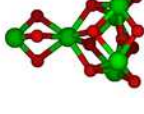
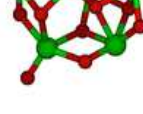
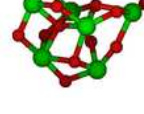
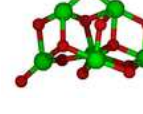
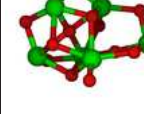
Th <sub>5</sub> O <sub>10</sub> (Continued from previous page)					
					
145 O10Th5.q0.m1-53 7.00 eV (C1)	146 O10Th5.q0.m1-213 7.04 eV (C1)	147 O10Th5.q0.m1-67 7.04 eV (C1)	148 O10Th5.q0.m1-21 7.04 eV (C1)	149 O10Th5.q0.m1-197 7.03 eV (C1)	150 O10Th5.q0.m1-125 7.05 eV (C1)
					
151 O10Th5.q0.m1-183 7.08 eV (C1)	152 O10Th5.q0.m1-12 7.11 eV (C1)	153 O10Th5.q0.m1-112 7.13 eV (C1)	154 O10Th5.q0.m1-193 7.23 eV (C1)	155 O10Th5.q0.m1-129 7.24 eV (C1)	156 O10Th5.q0.m1-90 7.24 eV (C1)
					
157 O10Th5.q0.m1-24 7.25 eV (C1)	158 O10Th5.q0.m1-65 7.26 eV (C1)	159 O10Th5.q0.m1-269 7.28 eV (C1)	160 O10Th5.q0.m1-245 7.27 eV (C1)	161 O10Th5.q0.m1-49 7.30 eV (C1)	162 O10Th5.q0.m1-248 7.35 eV (C1)
					
163 O10Th5.q0.m1-159 7.45 eV (C1)	164 O10Th5.q0.m1-228 7.45 eV (C1)	165 O10Th5.q0.m1-266 7.45 eV (C1)	166 O10Th5.q0.m1-19 7.46 eV (C1)	167 O10Th5.q0.m1-103 7.43 eV (C1)	168 O10Th5.q0.m1-175 7.53 eV (C1)
					
169 O10Th5.q0.m1-96 7.52 eV (C1)	170 O10Th5.q0.m1-219 7.52 eV (C1)	171 O10Th5.q0.m1-203 7.50 eV (C1)	172 O10Th5.q0.m1-48 7.59 eV (C1)	173 O10Th5.q0.m1-195 7.58 eV (C1)	174 O10Th5.q0.m1-204 7.58 eV (C1)
					
175 O10Th5.q0.m1-254 7.60 eV (C1)	176 O10Th5.q0.m1-258 7.64 eV (C1)	177 O10Th5.q0.m1-83 7.67 eV (C1)	178 O10Th5.q0.m1-217 7.67 eV (C1)	179 O10Th5.q0.m1-80 7.67 eV (C1)	180 O10Th5.q0.m1-206 7.69 eV (C1)

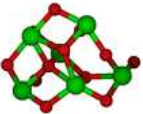
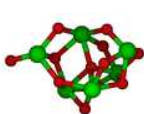

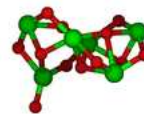
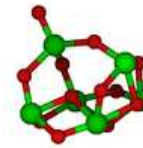

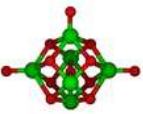
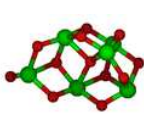
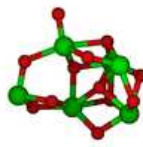
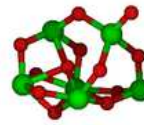
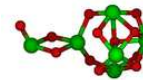
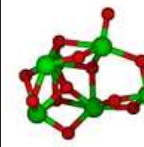
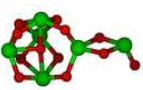
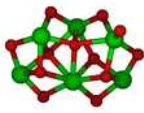
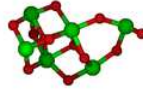
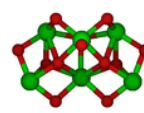
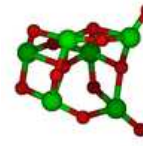
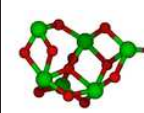
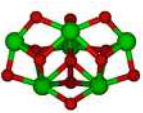
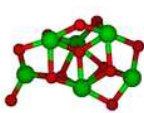
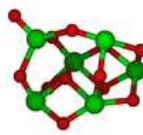
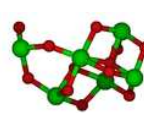
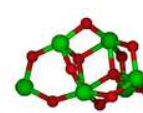
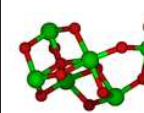
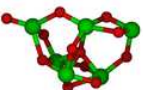
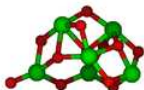
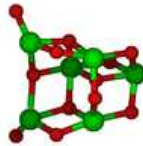
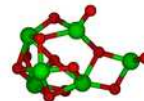
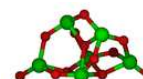
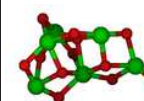
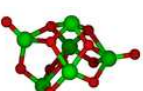
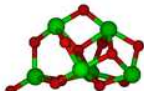
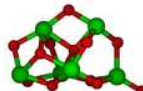
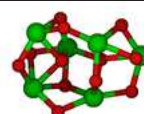
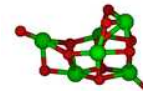
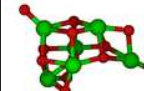
Th <sub>5</sub> O <sub>10</sub> (Continued from previous page)					
					
181 O10Th5.q0.m1-259 7.70 eV (C1)	182 O10Th5.q0.m1-172 7.72 eV (C1)	183 O10Th5.q0.m1-247 7.73 eV (C1)	184 O10Th5.q0.m1-212 7.73 eV (C1)	185 O10Th5.q0.m1-144 7.83 eV (C1)	186 O10Th5.q0.m1-264 7.81 eV (C1)
					
187 O10Th5.q0.m1-105 7.86 eV (C1)	188 O10Th5.q0.m1-238 7.90 eV (C1)	189 O10Th5.q0.m1-64 7.90 eV (C1)	190 O10Th5.q0.m1-257 7.89 eV (C1)	191 O10Th5.q0.m1-160 7.94 eV (C1)	192 O10Th5.q0.m1-209 7.95 eV (C1)
					
193 O10Th5.q0.m1-11 7.99 eV (C1)	194 O10Th5.q0.m1-215 8.03 eV (C1)	195 O10Th5.q0.m1-97 8.04 eV (C1)	196 O10Th5.q0.m1-260 8.07 eV (C1)	197 O10Th5.q0.m1-39 8.11 eV (C1)	198 O10Th5.q0.m1-86 8.14 eV (C1)
					
199 O10Th5.q0.m1-18 8.16 eV (C1)	200 O10Th5.q0.m1-157 8.18 eV (C1)	201 O10Th5.q0.m1-7 8.20 eV (C1)	202 O10Th5.q0.m1-263 8.20 eV (C1)	203 O10Th5.q0.m1-2 8.22 eV (C1)	204 O10Th5.q0.m1-222 8.21 eV (C1)
					
205 O10Th5.q0.m1-191 8.25 eV (C1)	206 O10Th5.q0.m1-143 8.36 eV (C1)	207 O10Th5.q0.m1-10 8.39 eV (C1)	208 O10Th5.q0.m1-77 8.47 eV (C1)	209 O10Th5.q0.m1-38 8.54 eV (C1)	210 O10Th5.q0.m1-150 8.60 eV (C1)
					
211 O10Th5.q0.m1-253 8.66 eV (C1)	212 O10Th5.q0.m1-54 8.73 eV (C1)	213 O10Th5.q0.m1-196 8.75 eV (C1)	214 O10Th5.q0.m1-50 8.89 eV (C1)	215 O10Th5.q0.m1-73 9.12 eV (C1)	216 O10Th5.q0.m1-252 9.28 eV (C1)

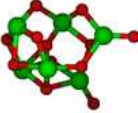
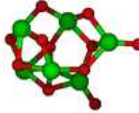
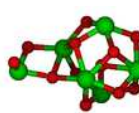
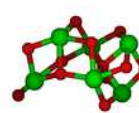
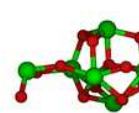

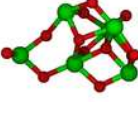
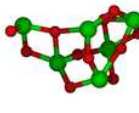
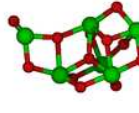
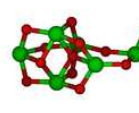

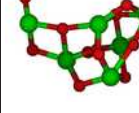
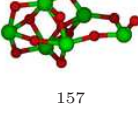
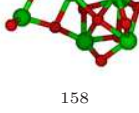
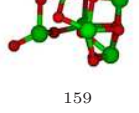
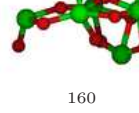
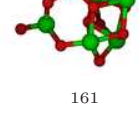
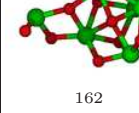
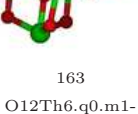
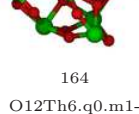
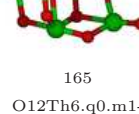
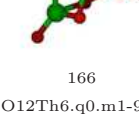
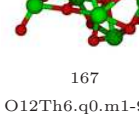
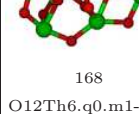
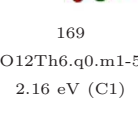

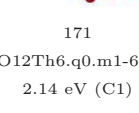

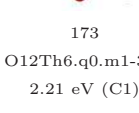

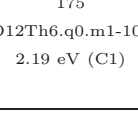
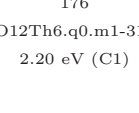
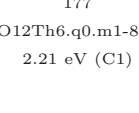
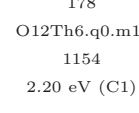
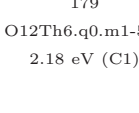
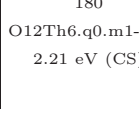
Th <sub>5</sub> O <sub>10</sub> (Continued from previous page)					
					
217 O10Th5.q0.m1-243 9.29 eV (C1)	218 O10Th5.q0.m1-189 9.55 eV (C1)	219 O10Th5.q0.m1-101 9.55 eV (C1)	220 O10Th5.q0.m1-158 9.72 eV (C1)	221 O10Th5.q0.m1-114 9.85 eV (C1)	222 O10Th5.q0.m1-240 9.92 eV (C1)
					
223 O10Th5.q0.m1-75 10.49 eV (C1)	224 O10Th5.q0.m1-239 11.26 eV (C1)	225 O10Th5.q0.m1-88 11.41 eV (C1)	226 O10Th5.q0.m1-267 11.56 eV (C1)	227 O10Th5.q0.m1-84 11.83 eV (C1)	228 O10Th5.q0.m1-192 12.00 eV (C1)
					
229 O10Th5.q0.m1-154 12.19 eV (C1)	230 O10Th5.q0.m1-156 12.28 eV (C1)	231 O10Th5.q0.m1-127 12.40 eV (C1)	232 O10Th5.q0.m1-6 12.50 eV (C1)	233 O10Th5.q0.m1-107 12.51 eV (C1)	234 O10Th5.q0.m1-184 12.56 eV (C1)
					
235 O10Th5.q0.m1-194 12.64 eV (C1)	236 O10Th5.q0.m1-230 13.01 eV (C1)	237 O10Th5.q0.m1-207 13.22 eV (C1)	238 O10Th5.q0.m1-9 13.44 eV (C1)	239 O10Th5.q0.m1-3 13.53 eV (C1)	240 O10Th5.q0.m1-8 13.56 eV (C1)
					
241 O10Th5.q0.m1-170 13.66 eV (C1)	242 O10Th5.q0.m1-174 13.97 eV (C1)	243 O10Th5.q0.m1-208 13.97 eV (C1)	244 O10Th5.q0.m1-177 13.99 eV (C1)	245 O10Th5.q0.m1-46 14.03 eV (C1)	246 O10Th5.q0.m1-23 14.02 eV (C1)
					
247 O10Th5.q0.m1-15 14.32 eV (C1)	248 O10Th5.q0.m1-205 14.42 eV (C1)	249 O10Th5.q0.m1-94 14.54 eV (C1)	250 O10Th5.q0.m1-165 14.56 eV (C1)	251 O10Th5.q0.m1-226 14.76 eV (C1)	252 O10Th5.q0.m1-22 15.05 eV (C1)

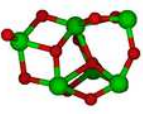
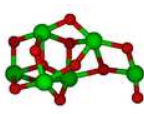
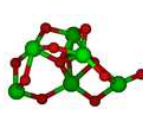

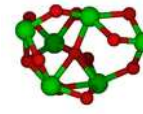
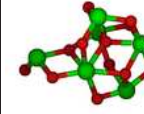
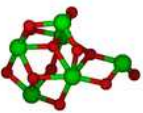

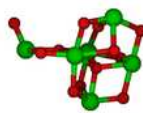
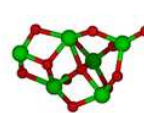
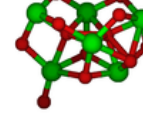
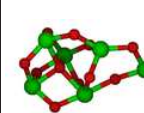
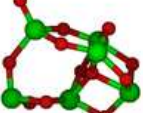
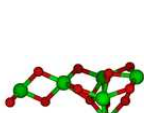
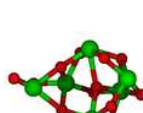
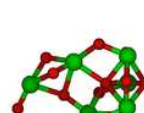
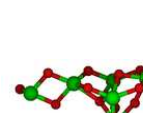
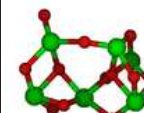
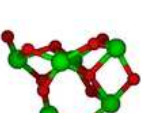

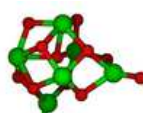
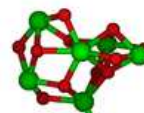
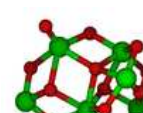

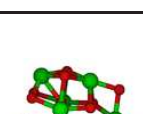
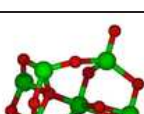
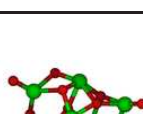
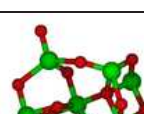
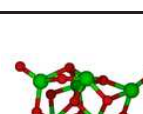
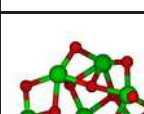
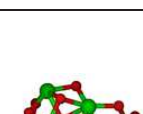
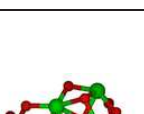
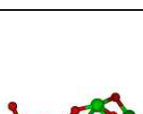

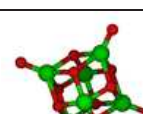
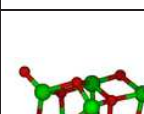
$\text{Th}_6\text{O}_{12}$					
 1 O12Th6.q0.m1-152 0.00 eV (CS)	 2 O12Th6.q0.m1-21 0.30 eV (C1)	 3 O12Th6.q0.m1-1106 0.30 eV (C1)	 4 O12Th6.q0.m1-115 0.37 eV (CS)	 5 O12Th6.q0.m1-164 0.48 eV (C1)	 6 O12Th6.q0.m1-134 0.57 eV (C1)
 7 O12Th6.q0.m1-319 0.57 eV (C1)	 8 O12Th6.q0.m1-108 0.67 eV (C1)	 9 O12Th6.q0.m1-559 0.67 eV (C1)	 10 O12Th6.q0.m1-1127 0.68 eV (C1)	 11 O12Th6.q0.m1-109 0.72 eV (C1)	 12 O12Th6.q0.m1-316 0.73 eV (C1)
 13 O12Th6.q0.m1-136 0.78 eV (CS)	 14 O12Th6.q0.m1-1101 0.83 eV (C1)	 15 O12Th6.q0.m1-11 0.91 eV (C1)	 16 O12Th6.q0.m1-143 0.89 eV (CS)	 17 O12Th6.q0.m1-127 0.93 eV (C2)	 18 O12Th6.q0.m1-1176 0.93 eV (C2)
 19 O12Th6.q0.m1-503 0.93 eV (C1)	 20 O12Th6.q0.m1-1062 1.01 eV (C1)	 21 O12Th6.q0.m1-1023 1.05 eV (CS)	 22 O12Th6.q0.m1-1098 1.03 eV (C1)	 23 O12Th6.q0.m1-768 1.06 eV (C1)	 24 O12Th6.q0.m1-1077 1.07 eV (C1)
 25 O12Th6.q0.m1-226 1.10 eV (CS)	 26 O12Th6.q0.m1-16 1.08 eV (C1)	 27 O12Th6.q0.m1-124 1.11 eV (CS)	 28 O12Th6.q0.m1-147 1.11 eV (C1)	 29 O12Th6.q0.m1-385 1.16 eV (C1)	 30 O12Th6.q0.m1-650 1.16 eV (CS)
 31 O12Th6.q0.m1-1107 1.15 eV (C1)	 32 O12Th6.q0.m1-998 1.17 eV (C1)	 33 O12Th6.q0.m1-1036 1.15 eV (C1)	 34 O12Th6.q0.m1-1013 1.20 eV (C1)	 35 O12Th6.q0.m1-1032 1.20 eV (C1)	 36 O12Th6.q0.m1-1033 1.17 eV (C1)

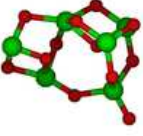
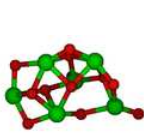

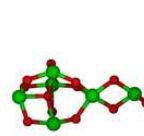
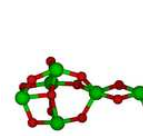
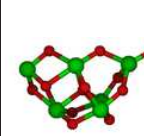


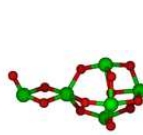
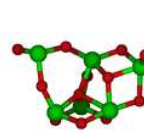
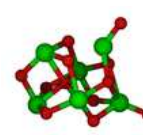
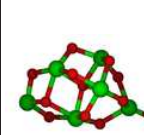
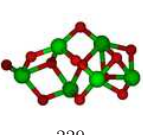
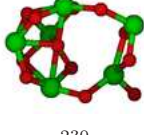
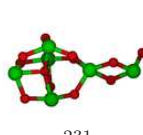


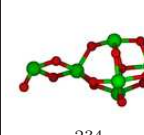
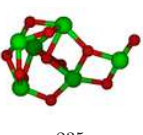
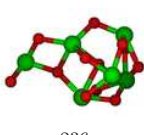
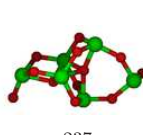
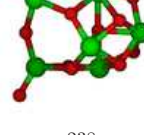
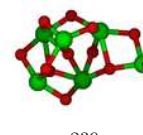
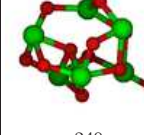
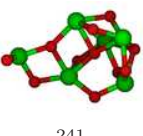

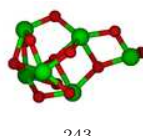


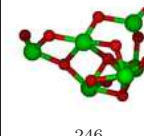
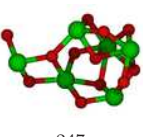
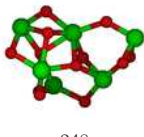
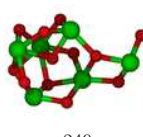

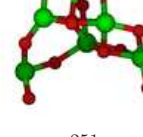

$\text{Th}_6\text{O}_{12}$ (Continued from previous page)					
 37 O12Th6.q0.m1-201 1.17 eV (CS)	 38 O12Th6.q0.m1-555 1.22 eV (C1)	 39 O12Th6.q0.m1-296 1.22 eV (C1)	 40 O12Th6.q0.m1-110 1.22 eV (C1)	 41 O12Th6.q0.m1-322 1.26 eV (C1)	 42 O12Th6.q0.m1-170 1.23 eV (C1)
 43 O12Th6.q0.m1-452 1.26 eV (C1)	 44 O12Th6.q0.m1-42 1.27 eV (C1)	 45 O12Th6.q0.m1-158 1.28 eV (C1)	 46 O12Th6.q0.m1-1250 1.28 eV (C1)	 47 O12Th6.q0.m1-1162 1.28 eV (CS)	 48 O12Th6.q0.m1-1129 1.30 eV (C1)
 49 O12Th6.q0.m1-890 1.32 eV (C1)	 50 O12Th6.q0.m1-327 1.33 eV (C1)	 51 O12Th6.q0.m1-211 1.31 eV (C1)	 52 O12Th6.q0.m1-722 1.30 eV (C1)	 53 O12Th6.q0.m1-268 1.34 eV (C1)	 54 O12Th6.q0.m1-829 1.35 eV (C1)
 55 O12Th6.q0.m1-314 1.32 eV (C1)	 56 O12Th6.q0.m1-401 1.35 eV (C1)	 57 O12Th6.q0.m1-816 1.38 eV (CS)	 58 O12Th6.q0.m1-360 1.36 eV (CS)	 59 O12Th6.q0.m1-755 1.39 eV (C1)	 60 O12Th6.q0.m1-1140 1.38 eV (C1)
 61 O12Th6.q0.m1-1094 1.42 eV (C1)	 62 O12Th6.q0.m1-233 1.40 eV (C1)	 63 O12Th6.q0.m1-424 1.40 eV (C1)	 64 O12Th6.q0.m1-397 1.41 eV (C1)	 65 O12Th6.q0.m1-101 1.46 eV (C1)	 66 O12Th6.q0.m1-54 1.46 eV (C1)
 67 O12Th6.q0.m1-571 1.47 eV (C1)	 68 O12Th6.q0.m1-1042 1.49 eV (C1)	 69 O12Th6.q0.m1-303 1.50 eV (C1)	 70 O12Th6.q0.m1-1003 1.50 eV (C1)	 71 O12Th6.q0.m1-242 1.49 eV (C1)	 72 O12Th6.q0.m1-132 1.50 eV (C1)


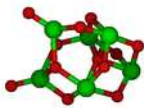
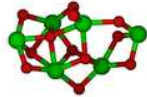
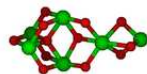
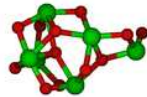
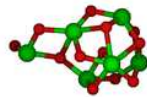

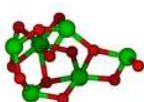
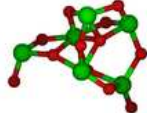
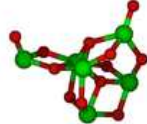
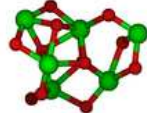

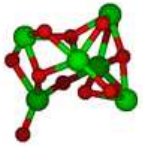
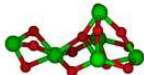

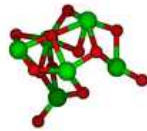
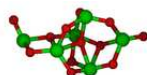
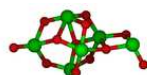
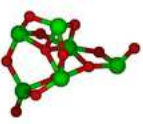
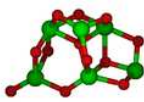
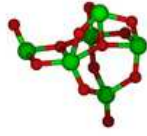
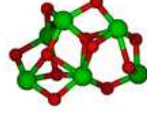
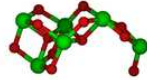

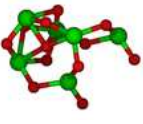
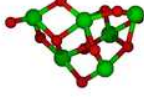
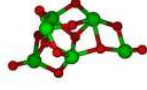
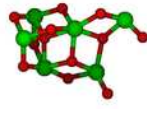
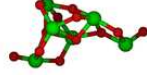

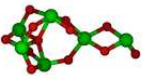
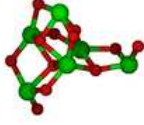

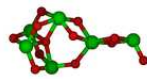

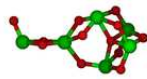
$\text{Th}_6\text{O}_{12}$ (Continued from previous page)					
					
73 O12Th6.q0.m1-473 1.53 eV (C1)	74 O12Th6.q0.m1-554 1.54 eV (C1)	75 O12Th6.q0.m1-95 1.51 eV (C1)	76 O12Th6.q0.m1-345 1.52 eV (C1)	77 O12Th6.q0.m1-941 1.56 eV (C1)	78 O12Th6.q0.m1-377 1.56 eV (C1)
					
79 O12Th6.q0.m1-1028 1.56 eV (C1)	80 O12Th6.q0.m1-225 1.56 eV (C1)	81 O12Th6.q0.m1-1181 1.57 eV (C1)	82 O12Th6.q0.m1-944 1.57 eV (C1)	83 O12Th6.q0.m1-652 1.57 eV (C1)	84 O12Th6.q0.m1-33 1.59 eV (C1)
					
85 O12Th6.q0.m1-176 1.59 eV (C1)	86 O12Th6.q0.m1-118 1.60 eV (C1)	87 O12Th6.q0.m1-774 1.59 eV (C1)	88 O12Th6.q0.m1-1016 1.62 eV (C1)	89 O12Th6.q0.m1-102 1.63 eV (C1)	90 O12Th6.q0.m1-104 1.63 eV (C1)
					
91 O12Th6.q0.m1-151 1.64 eV (C1)	92 O12Th6.q0.m1-1030 1.64 eV (C1)	93 O12Th6.q0.m1-209 1.60 eV (C1)	94 O12Th6.q0.m1-323 1.64 eV (C1)	95 O12Th6.q0.m1-1096 1.67 eV (C1)	96 O12Th6.q0.m1-948 1.67 eV (C1)
					
97 O12Th6.q0.m1-1135 1.67 eV (C1)	98 O12Th6.q0.m1-782 1.68 eV (C1)	99 O12Th6.q0.m1-733 1.71 eV (C1)	100 O12Th6.q0.m1-723 1.70 eV (C1)	101 O12Th6.q0.m1-1177 1.71 eV (C1)	102 O12Th6.q0.m1-906 1.68 eV (C1)
					
103 O12Th6.q0.m1-645 1.70 eV (C1)	104 O12Th6.q0.m1-701 1.80 eV (C1)	105 O12Th6.q0.m1-122 1.77 eV (C1)	106 O12Th6.q0.m1-51 1.77 eV (C1)	107 O12Th6.q0.m1-1007 1.78 eV (C1)	108 O12Th6.q0.m1-135 1.79 eV (C1)

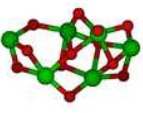
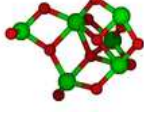
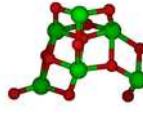
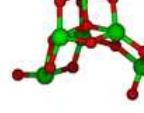

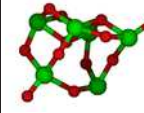
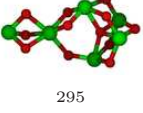
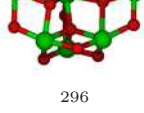
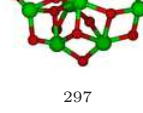
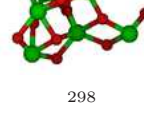
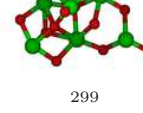
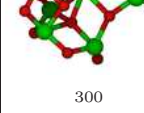
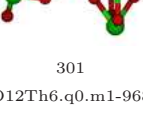
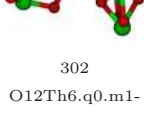
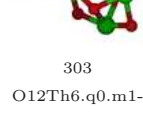
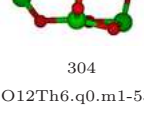
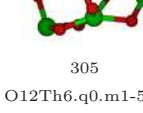
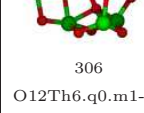
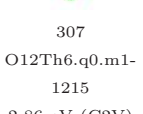
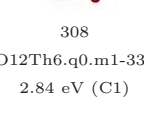
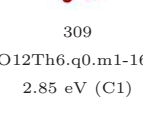
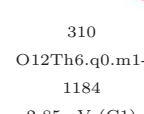
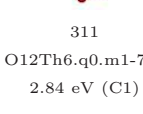
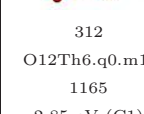
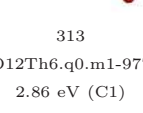
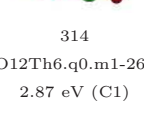
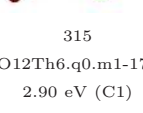
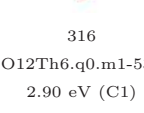
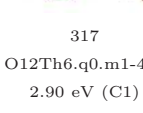
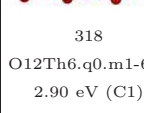
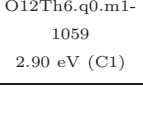
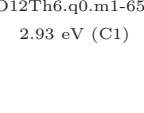
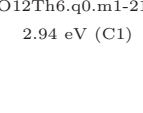
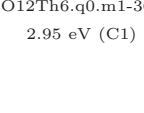
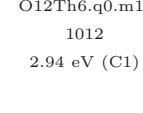
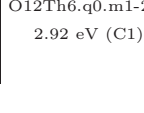
Th <sub>6</sub> O <sub>12</sub> (Continued from previous page)					
 109 O12Th6.q0.m1-1074 1.78 eV (C1)	 110 O12Th6.q0.m1-347 1.78 eV (C1)	 111 O12Th6.q0.m1-549 1.78 eV (C1)	 112 O12Th6.q0.m1-359 1.81 eV (C1)	 113 O12Th6.q0.m1-1053 1.81 eV (C1)	 114 O12Th6.q0.m1-1128 1.84 eV (C1)
 115 O12Th6.q0.m1-1208 1.86 eV (C2V)	 116 O12Th6.q0.m1-845 1.86 eV (C1)	 117 O12Th6.q0.m1-1064 1.91 eV (C1)	 118 O12Th6.q0.m1-740 1.90 eV (C1)	 119 O12Th6.q0.m1-146 1.92 eV (C1)	 120 O12Th6.q0.m1-603 1.92 eV (C1)
 121 O12Th6.q0.m1-1113 1.92 eV (C1)	 122 O12Th6.q0.m1-1004 1.92 eV (C1)	 123 O12Th6.q0.m1-678 1.92 eV (C1)	 124 O12Th6.q0.m1-276 1.93 eV (CS)	 125 O12Th6.q0.m1-1136 1.90 eV (C1)	 126 O12Th6.q0.m1-1045 1.92 eV (C1)
 127 O12Th6.q0.m1-556 1.97 eV (C1)	 128 O12Th6.q0.m1-416 1.95 eV (C1)	 129 O12Th6.q0.m1-628 1.94 eV (C1)	 130 O12Th6.q0.m1-1084 1.95 eV (C1)	 131 O12Th6.q0.m1-542 1.95 eV (C1)	 132 O12Th6.q0.m1-1031 1.97 eV (C1)
 133 O12Th6.q0.m1-149 1.96 eV (C1)	 134 O12Th6.q0.m1-488 1.96 eV (C1)	 135 O12Th6.q0.m1-175 1.98 eV (CS)	 136 O12Th6.q0.m1-141 2.00 eV (C1)	 137 O12Th6.q0.m1-429 1.96 eV (C2)	 138 O12Th6.q0.m1-472 2.01 eV (C1)
 139 O12Th6.q0.m1-1258 2.01 eV (CS)	 140 O12Th6.q0.m1-481 2.00 eV (C1)	 141 O12Th6.q0.m1-905 2.00 eV (C1)	 142 O12Th6.q0.m1-677 2.05 eV (C1)	 143 O12Th6.q0.m1-731 2.03 eV (C1)	 144 O12Th6.q0.m1-736 2.03 eV (C1)

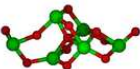
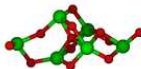
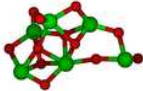

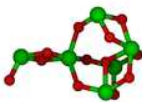
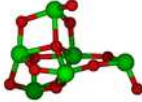
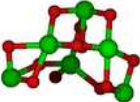
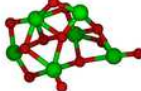
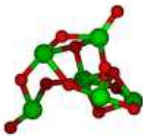
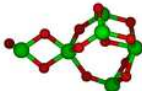
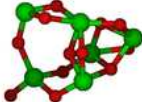
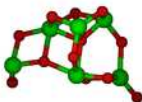
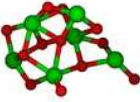

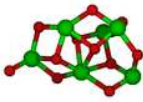
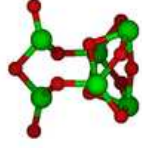
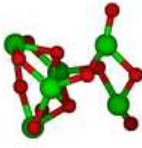

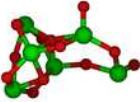
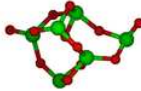
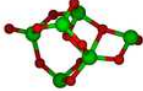
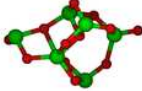
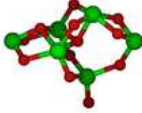
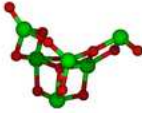

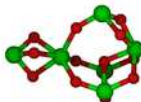
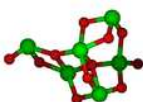
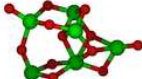
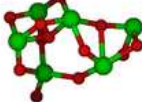
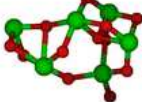
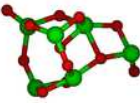
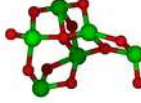
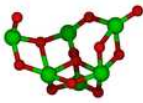
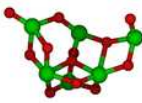
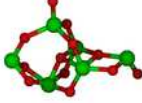
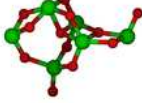
$\text{Th}_6\text{O}_{12}$ (Continued from previous page)					
 145 O12Th6.q0.m1-980 2.04 eV (C1)	 146 O12Th6.q0.m1-739 2.05 eV (C1)	 147 O12Th6.q0.m1-190 2.07 eV (C1)	 148 O12Th6.q0.m1-1161 2.05 eV (C1)	 149 O12Th6.q0.m1-1079 2.08 eV (C1)	 150 O12Th6.q0.m1-205 2.07 eV (C1)
 151 O12Th6.q0.m1-529 2.08 eV (C1)	 152 O12Th6.q0.m1-120 2.09 eV (C1)	 153 O12Th6.q0.m1-1078 2.09 eV (C1)	 154 O12Th6.q0.m1-304 2.09 eV (C1)	 155 O12Th6.q0.m1-1175 2.11 eV (C1)	 156 O12Th6.q0.m1-126 2.10 eV (C1)
 157 O12Th6.q0.m1-578 2.10 eV (C1)	 158 O12Th6.q0.m1-133 2.10 eV (C1)	 159 O12Th6.q0.m1-139 2.09 eV (C1)	 160 O12Th6.q0.m1-1025 2.11 eV (C1)	 161 O12Th6.q0.m1-1218 2.09 eV (C1)	 162 O12Th6.q0.m1-140 2.10 eV (C1)
 163 O12Th6.q0.m1-1081 2.11 eV (C1)	 164 O12Th6.q0.m1-1065 2.13 eV (C1)	 165 O12Th6.q0.m1-1152 2.11 eV (C1)	 166 O12Th6.q0.m1-910 2.11 eV (C1)	 167 O12Th6.q0.m1-971 2.16 eV (C1)	 168 O12Th6.q0.m1-831 2.13 eV (C1)
 169 O12Th6.q0.m1-5 2.16 eV (C1)	 170 O12Th6.q0.m1-1134 2.13 eV (CS)	 171 O12Th6.q0.m1-673 2.14 eV (C1)	 172 O12Th6.q0.m1-1268 2.16 eV (C1)	 173 O12Th6.q0.m1-368 2.21 eV (C1)	 174 O12Th6.q0.m1-1044 2.19 eV (C1)
 175 O12Th6.q0.m1-105 2.19 eV (C1)	 176 O12Th6.q0.m1-315 2.20 eV (C1)	 177 O12Th6.q0.m1-841 2.21 eV (C1)	 178 O12Th6.q0.m1-1154 2.20 eV (C1)	 179 O12Th6.q0.m1-536 2.18 eV (C1)	 180 O12Th6.q0.m1-661 2.21 eV (CS)

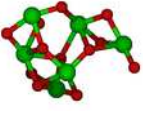
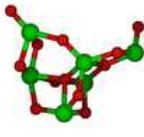
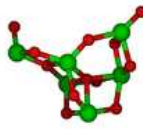
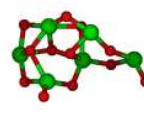
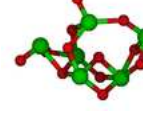
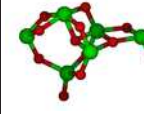
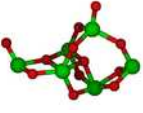
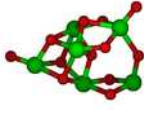
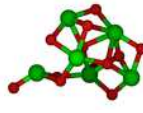
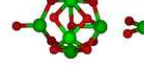
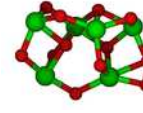

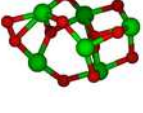
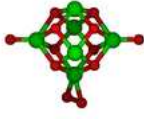
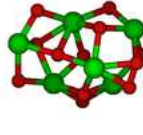
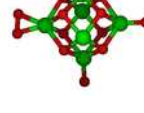
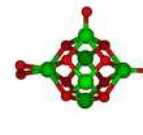
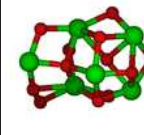
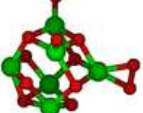
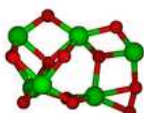
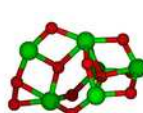
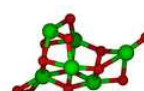
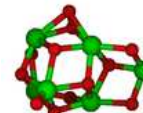
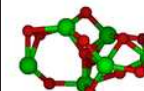
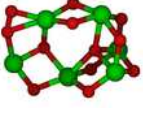
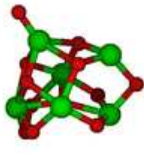
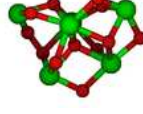
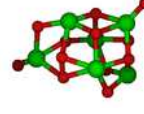

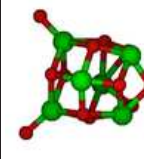
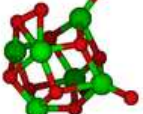
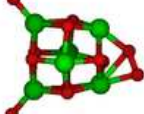
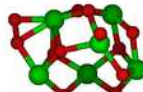
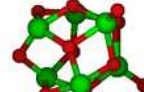
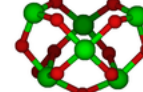
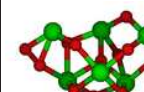
$\text{Th}_6\text{O}_{12}$ (Continued from previous page)					
 181 O12Th6.q0.m1-572 2.21 eV (C1)	 182 O12Th6.q0.m1-776 2.23 eV (C1)	 183 O12Th6.q0.m1-822 2.21 eV (C1)	 184 O12Th6.q0.m1-641 2.21 eV (C1)	 185 O12Th6.q0.m1-1142 2.24 eV (C1)	 186 O12Th6.q0.m1-577 2.25 eV (C1)
 187 O12Th6.q0.m1-729 2.25 eV (C1)	 188 O12Th6.q0.m1-26 2.25 eV (C1)	 189 O12Th6.q0.m1-404 2.25 eV (C1)	 190 O12Th6.q0.m1-1093 2.24 eV (C1)	 191 O12Th6.q0.m1-395 2.28 eV (C1)	 192 O12Th6.q0.m1-247 2.25 eV (C1)
 193 O12Th6.q0.m1-1087 2.25 eV (C1)	 194 O12Th6.q0.m1-1086 2.29 eV (C1)	 195 O12Th6.q0.m1-1178 2.27 eV (C1)	 196 O12Th6.q0.m1-1182 2.29 eV (C1)	 197 O12Th6.q0.m1-1111 2.29 eV (C1)	 198 O12Th6.q0.m1-354 2.29 eV (C1)
 199 O12Th6.q0.m1-1038 2.28 eV (C1)	 200 O12Th6.q0.m1-210 2.28 eV (C1)	 201 O12Th6.q0.m1-1261 2.29 eV (C1)	 202 O12Th6.q0.m1-374 2.33 eV (C1)	 203 O12Th6.q0.m1-489 2.32 eV (C1)	 204 O12Th6.q0.m1-159 2.31 eV (C1)
 205 O12Th6.q0.m1-326 2.31 eV (C1)	 206 O12Th6.q0.m1-310 2.33 eV (C1)	 207 O12Th6.q0.m1-3 2.32 eV (C1)	 208 O12Th6.q0.m1-1150 2.33 eV (C1)	 209 O12Th6.q0.m1-1046 2.33 eV (C1)	 210 O12Th6.q0.m1-1174 2.36 eV (C1)
 211 O12Th6.q0.m1-685 2.36 eV (C1)	 212 O12Th6.q0.m1-145 2.36 eV (C1)	 213 O12Th6.q0.m1-216 2.38 eV (C1)	 214 O12Th6.q0.m1-1018 2.38 eV (C1)	 215 O12Th6.q0.m1-1246 2.36 eV (D4H)	 216 O12Th6.q0.m1-1041 2.37 eV (C1)

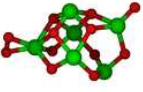
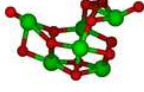
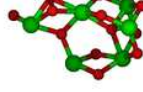
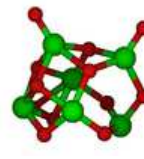
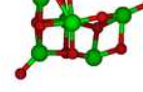
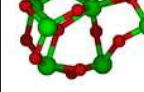


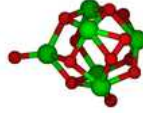
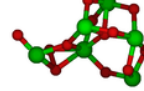
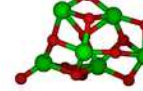
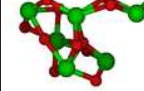
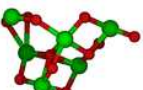
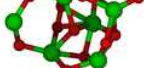
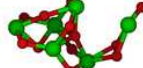
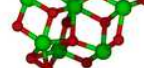
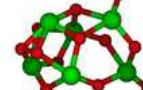
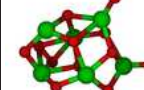
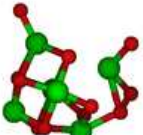
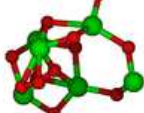
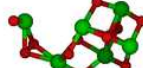
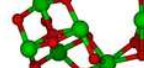
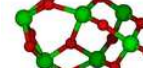
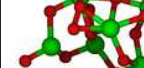
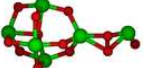
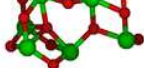
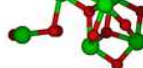
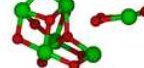
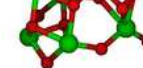
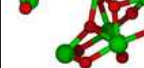
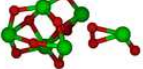
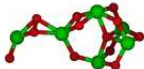

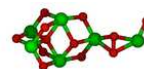
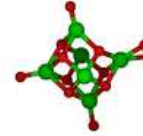
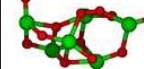
Th <sub>6</sub> O <sub>12</sub> (Continued from previous page)					
					
217 O12Th6.q0.m1-568 2.39 eV (C1)	218 O12Th6.q0.m1-358 2.39 eV (C1)	219 O12Th6.q0.m1-1057 2.39 eV (C1)	220 O12Th6.q0.m1-1040 2.39 eV (C1)	221 O12Th6.q0.m1-955 2.40 eV (C1)	222 O12Th6.q0.m1-121 2.40 eV (C1)
					
223 O12Th6.q0.m1-1066 2.41 eV (C1)	224 O12Th6.q0.m1-931 2.40 eV (C1)	225 O12Th6.q0.m1-334 2.40 eV (C1)	226 O12Th6.q0.m1-31 2.40 eV (C1)	227 O12Th6.q0.m1-920 2.41 eV (CS)	228 O12Th6.q0.m1-1047 2.40 eV (C1)
					
229 O12Th6.q0.m1-223 2.44 eV (C1)	230 O12Th6.q0.m1-1063 2.44 eV (C1)	231 O12Th6.q0.m1-320 2.42 eV (C1)	232 O12Th6.q0.m1-1116 2.45 eV (C1)	233 O12Th6.q0.m1-432 2.44 eV (C1)	234 O12Th6.q0.m1-1109 2.42 eV (C1)
					
235 O12Th6.q0.m1-106 2.46 eV (C1)	236 O12Th6.q0.m1-113 2.46 eV (C1)	237 O12Th6.q0.m1-1123 2.45 eV (C1)	238 O12Th6.q0.m1-1114 2.46 eV (C1)	239 O12Th6.q0.m1-1141 2.48 eV (C1)	240 O12Th6.q0.m1-643 2.47 eV (C1)
					
241 O12Th6.q0.m1-103 2.49 eV (C1)	242 O12Th6.q0.m1-1099 2.49 eV (C1)	243 O12Th6.q0.m1-447 2.50 eV (C1)	244 O12Th6.q0.m1-328 2.50 eV (C1)	245 O12Th6.q0.m1-40 2.50 eV (C1)	246 O12Th6.q0.m1-1061 2.51 eV (C1)
					
247 O12Th6.q0.m1-770 2.52 eV (C1)	248 O12Th6.q0.m1-1005 2.51 eV (C1)	249 O12Th6.q0.m1-1103 2.52 eV (C1)	250 O12Th6.q0.m1-873 2.51 eV (C1)	251 O12Th6.q0.m1-399 2.51 eV (C1)	252 O12Th6.q0.m1-1009 2.51 eV (C1)

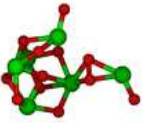
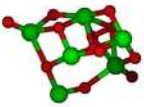
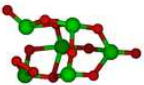
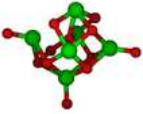
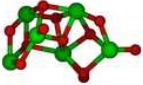
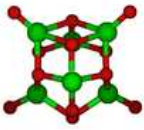


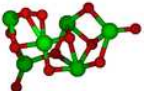
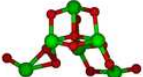
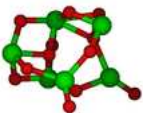


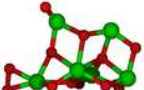



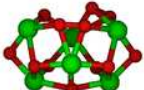

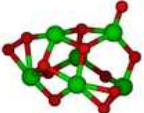
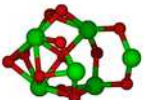
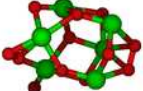
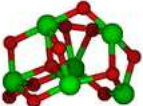
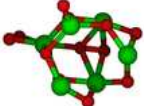


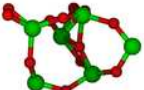
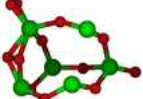


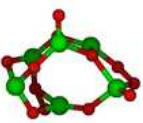
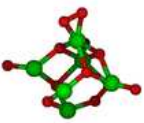
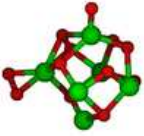
Th <sub>6</sub> O <sub>12</sub> (Continued from previous page)					
 253 O12Th6.q0.m1-1170 2.54 eV (C1)	 254 O12Th6.q0.m1-356 2.52 eV (C1)	 255 O12Th6.q0.m1-277 2.56 eV (C1)	 256 O12Th6.q0.m1-1027 2.58 eV (C1)	 257 O12Th6.q0.m1-107 2.56 eV (C1)	 258 O12Th6.q0.m1-119 2.58 eV (C1)
 259 O12Th6.q0.m1-1043 2.56 eV (C1)	 260 O12Th6.q0.m1-1076 2.58 eV (C1)	 261 O12Th6.q0.m1-791 2.56 eV (C1)	 262 O12Th6.q0.m1-672 2.57 eV (C1)	 263 O12Th6.q0.m1-956 2.60 eV (C1)	 264 O12Th6.q0.m1-292 2.58 eV (C1)
 265 O12Th6.q0.m1-371 2.60 eV (C1)	 266 O12Th6.q0.m1-1070 2.63 eV (C1)	 267 O12Th6.q0.m1-14 2.59 eV (C1)	 268 O12Th6.q0.m1-1068 2.63 eV (C1)	 269 O12Th6.q0.m1-313 2.63 eV (C1)	 270 O12Th6.q0.m1-1132 2.63 eV (C1)
 271 O12Th6.q0.m1-1119 2.62 eV (C1)	 272 O12Th6.q0.m1-484 2.65 eV (C1)	 273 O12Th6.q0.m1-12 2.63 eV (C1)	 274 O12Th6.q0.m1-415 2.67 eV (C1)	 275 O12Th6.q0.m1-306 2.69 eV (C1)	 276 O12Th6.q0.m1-43 2.69 eV (C1)
 277 O12Th6.q0.m1-150 2.70 eV (C1)	 278 O12Th6.q0.m1-624 2.71 eV (C1)	 279 O12Th6.q0.m1-240 2.70 eV (C1)	 280 O12Th6.q0.m1-218 2.71 eV (C1)	 281 O12Th6.q0.m1-94 2.70 eV (C1)	 282 O12Th6.q0.m1-1039 2.71 eV (C1)
 283 O12Th6.q0.m1-427 2.71 eV (C1)	 284 O12Th6.q0.m1-420 2.70 eV (C1)	 285 O12Th6.q0.m1-36 2.71 eV (C1)	 286 O12Th6.q0.m1-486 2.72 eV (C1)	 287 O12Th6.q0.m1-168 2.71 eV (C1)	 288 O12Th6.q0.m1-350 2.74 eV (C1)

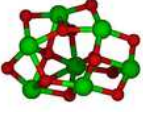
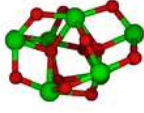
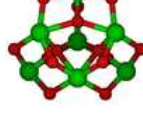
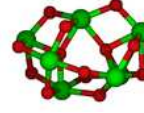
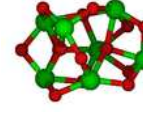
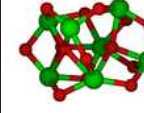
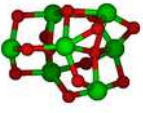
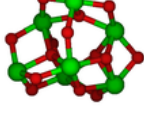
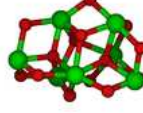
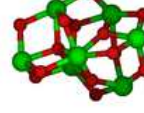
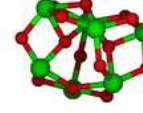
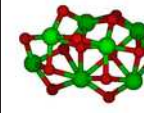
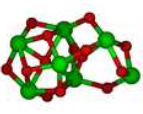
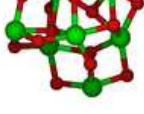
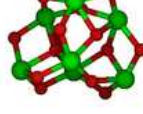
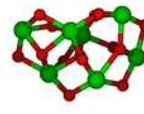
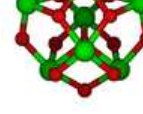
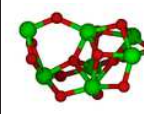
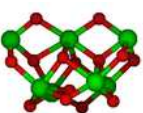
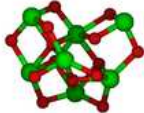
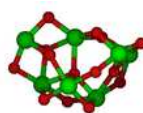
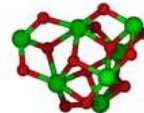
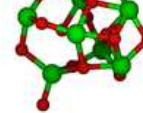
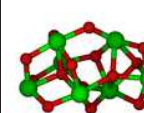
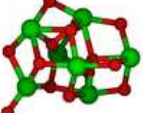
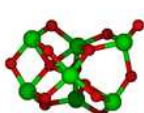
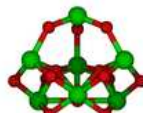
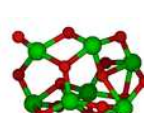
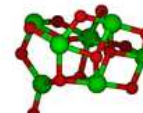
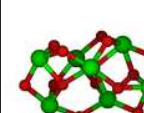
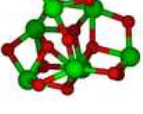
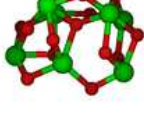
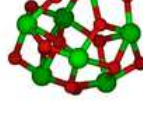
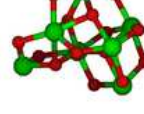
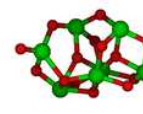
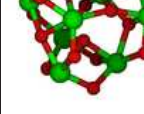
$\text{Th}_6\text{O}_{12}$ (Continued from previous page)					
					
289 O12Th6.q0.m1-1054 2.74 eV (C1)	290 O12Th6.q0.m1-785 2.74 eV (C1)	291 O12Th6.q0.m1-25 2.75 eV (C1)	292 O12Th6.q0.m1-1017 2.75 eV (C1)	293 O12Th6.q0.m1-532 2.75 eV (C1)	294 O12Th6.q0.m1-534 2.76 eV (C1)
					
295 O12Th6.q0.m1-934 2.80 eV (C1)	296 O12Th6.q0.m1-174 2.80 eV (C1)	297 O12Th6.q0.m1-938 2.80 eV (C1)	298 O12Th6.q0.m1-496 2.82 eV (C1)	299 O12Th6.q0.m1-1095 2.81 eV (C1)	300 O12Th6.q0.m1-1125 2.82 eV (C1)
					
301 O12Th6.q0.m1-968 2.85 eV (C1)	302 O12Th6.q0.m1-1159 2.85 eV (C1)	303 O12Th6.q0.m1-1192 2.85 eV (C1)	304 O12Th6.q0.m1-530 2.83 eV (C1)	305 O12Th6.q0.m1-566 2.85 eV (C1)	306 O12Th6.q0.m1-34 2.83 eV (C1)
					
307 O12Th6.q0.m1-1215 2.86 eV (C2V)	308 O12Th6.q0.m1-335 2.84 eV (C1)	309 O12Th6.q0.m1-165 2.85 eV (C1)	310 O12Th6.q0.m1-1184 2.85 eV (C1)	311 O12Th6.q0.m1-777 2.84 eV (C1)	312 O12Th6.q0.m1-1165 2.85 eV (C1)
					
313 O12Th6.q0.m1-977 2.86 eV (C1)	314 O12Th6.q0.m1-267 2.87 eV (C1)	315 O12Th6.q0.m1-177 2.90 eV (C1)	316 O12Th6.q0.m1-535 2.90 eV (C1)	317 O12Th6.q0.m1-411 2.90 eV (C1)	318 O12Th6.q0.m1-622 2.90 eV (C1)
					
319 O12Th6.q0.m1-1059 2.90 eV (C1)	320 O12Th6.q0.m1-654 2.93 eV (C1)	321 O12Th6.q0.m1-219 2.94 eV (C1)	322 O12Th6.q0.m1-365 2.95 eV (C1)	323 O12Th6.q0.m1-1012 2.94 eV (C1)	324 O12Th6.q0.m1-204 2.92 eV (C1)

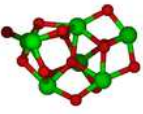
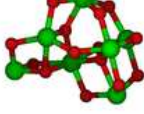
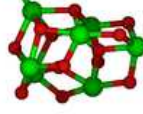
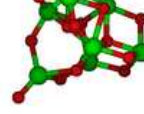
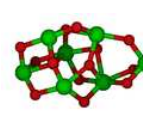
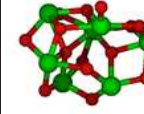
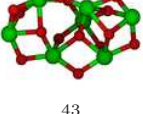
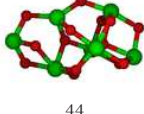
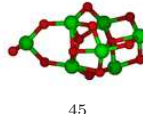
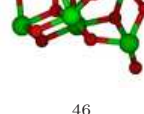

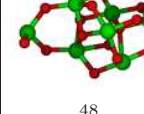
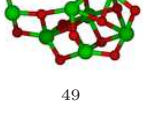
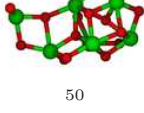
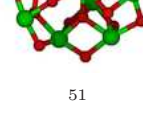
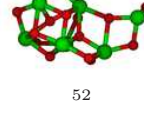
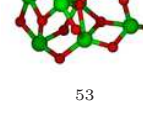
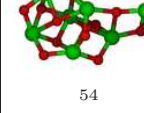
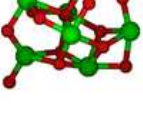
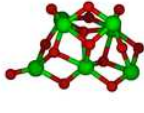
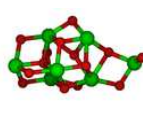
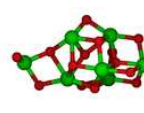
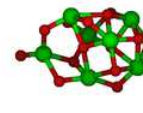
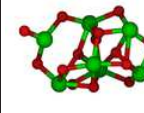
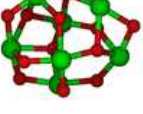
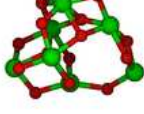
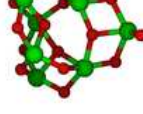
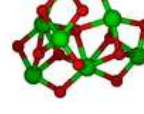
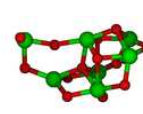
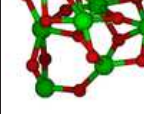
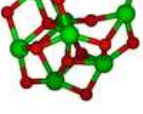
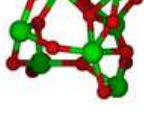
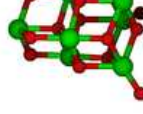
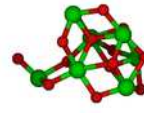
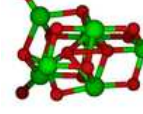
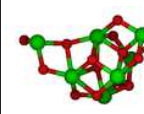
$\text{Th}_6\text{O}_{12}$ (Continued from previous page)					
 325 O12Th6.q0.m1-1008 2.96 eV (C1)	 326 O12Th6.q0.m1-1011 2.96 eV (C1)	 327 O12Th6.q0.m1-364 2.97 eV (C1)	 328 O12Th6.q0.m1-821 3.00 eV (C1)	 329 O12Th6.q0.m1-1130 3.02 eV (C1)	 330 O12Th6.q0.m1-988 3.02 eV (C1)
 331 O12Th6.q0.m1-819 3.03 eV (C1)	 332 O12Th6.q0.m1-413 3.03 eV (C1)	 333 O12Th6.q0.m1-1006 3.04 eV (C1)	 334 O12Th6.q0.m1-1131 3.06 eV (C1)	 335 O12Th6.q0.m1-1050 3.06 eV (C1)	 336 O12Th6.q0.m1-301 3.04 eV (C1)
 337 O12Th6.q0.m1-801 3.07 eV (C1)	 338 O12Th6.q0.m1-182 3.07 eV (C1)	 339 O12Th6.q0.m1-1189 3.07 eV (C1)	 340 O12Th6.q0.m1-1110 3.09 eV (C1)	 341 O12Th6.q0.m1-1121 3.11 eV (C1)	 342 O12Th6.q0.m1-789 3.16 eV (C1)
 343 O12Th6.q0.m1-1112 3.17 eV (C1)	 344 O12Th6.q0.m1-1049 3.19 eV (C1)	 345 O12Th6.q0.m1-1051 3.20 eV (C1)	 346 O12Th6.q0.m1-400 3.21 eV (C1)	 347 O12Th6.q0.m1-752 3.24 eV (CS)	 348 O12Th6.q0.m1-291 3.23 eV (C1)
 349 O12Th6.q0.m1-1048 3.23 eV (C1)	 350 O12Th6.q0.m1-807 3.27 eV (C1)	 351 O12Th6.q0.m1-565 3.28 eV (C1)	 352 O12Th6.q0.m1-1029 3.29 eV (C1)	 353 O12Th6.q0.m1-715 3.31 eV (C1)	 354 O12Th6.q0.m1-639 3.32 eV (C1)
 355 O12Th6.q0.m1-487 3.31 eV (C1)	 356 O12Th6.q0.m1-629 3.31 eV (C1)	 357 O12Th6.q0.m1-1000 3.33 eV (C1)	 358 O12Th6.q0.m1-1148 3.33 eV (C1)	 359 O12Th6.q0.m1-272 3.37 eV (C1)	 360 O12Th6.q0.m1-1058 3.37 eV (C1)

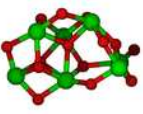
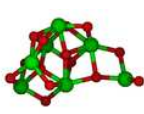
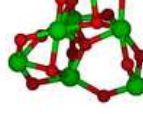
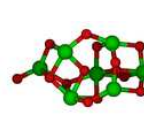
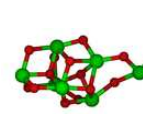
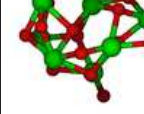
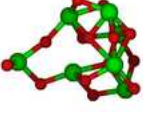
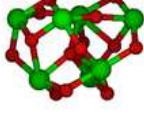
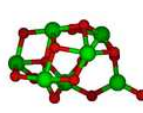
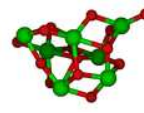
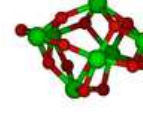

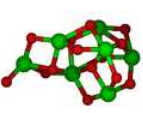
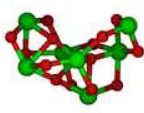
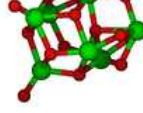
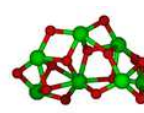
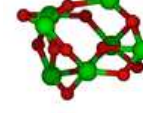
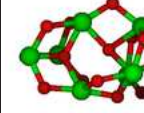
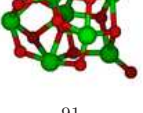
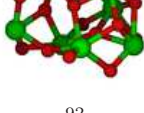
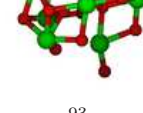
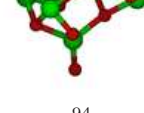
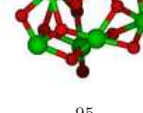
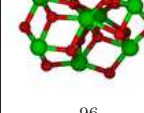
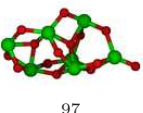
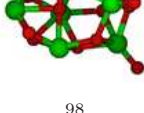
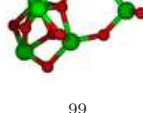
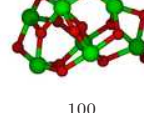
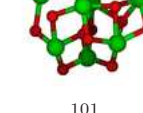
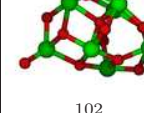
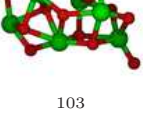
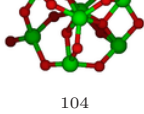
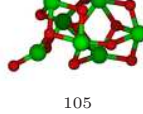
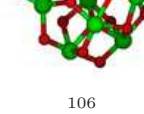
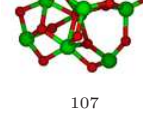
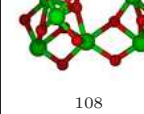
$\text{Th}_6\text{O}_{12}$ (Continued from previous page)					
 361 O12Th6.q0.m1-376 3.41 eV (C1)	 362 O12Th6.q0.m1-1137 3.38 eV (C1)	 363 O12Th6.q0.m1-228 3.39 eV (C1)	 364 O12Th6.q0.m1-1158 3.42 eV (C1)	 365 O12Th6.q0.m1-269 3.42 eV (C1)	 366 O12Th6.q0.m1-1052 3.46 eV (C1)
 367 O12Th6.q0.m1-329 3.46 eV (C1)	 368 O12Th6.q0.m1-74 3.67 eV (C1)	 369 O12Th6.q0.m1-889 3.79 eV (C1)	 370 O12Th6.q0.m1-893 4.41 eV (CS)	 371 O12Th6.q0.m1-561 5.87 eV (C1)	 372 O12Th6.q0.m1-1255 5.87 eV (C1)
 373 O12Th6.q0.m1-1118 5.93 eV (C1)	 374 O12Th6.q0.m1-1219 6.00 eV (C2)	 375 O12Th6.q0.m1-865 6.03 eV (C1)	 376 O12Th6.q0.m1-1221 6.00 eV (C1)	 377 O12Th6.q0.m1-1236 6.01 eV (C1)	 378 O12Th6.q0.m1-337 6.18 eV (C1)
 379 O12Th6.q0.m1-1222 6.18 eV (C1)	 380 O12Th6.q0.m1-634 6.21 eV (C1)	 381 O12Th6.q0.m1-1035 6.32 eV (C1)	 382 O12Th6.q0.m1-1211 6.35 eV (C1)	 383 O12Th6.q0.m1-1197 6.40 eV (C1)	 384 O12Th6.q0.m1-990 6.48 eV (C1)
 385 O12Th6.q0.m1-899 6.53 eV (C1)	 386 O12Th6.q0.m1-1252 6.52 eV (C1)	 387 O12Th6.q0.m1-263 6.81 eV (C1)	 388 O12Th6.q0.m1-1225 6.83 eV (C1)	 389 O12Th6.q0.m1-1191 6.86 eV (C1)	 390 O12Th6.q0.m1-1265 6.89 eV (C1)
 391 O12Th6.q0.m1-1239 6.89 eV (C1)	 392 O12Th6.q0.m1-1224 6.92 eV (C1)	 393 O12Th6.q0.m1-1195 6.93 eV (C1)	 394 O12Th6.q0.m1-1206 6.92 eV (C1)	 395 O12Th6.q0.m1-1210 6.99 eV (C1)	 396 O12Th6.q0.m1-1226 7.03 eV (C1)

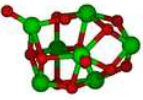
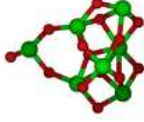
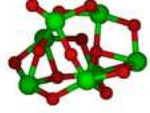
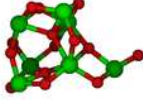
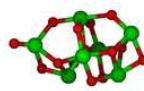
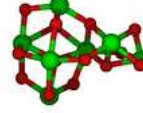
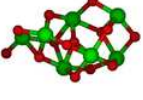
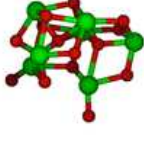
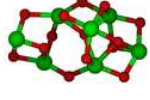
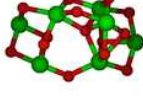
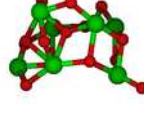
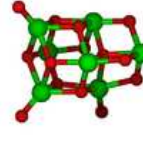
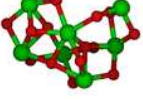
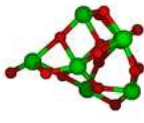
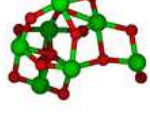
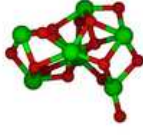
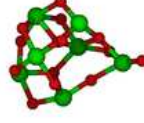

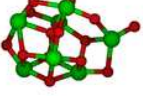
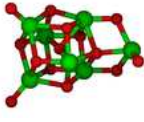
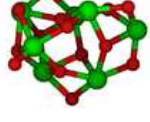
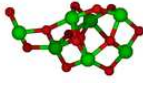
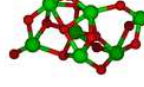
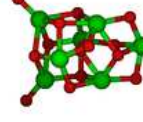
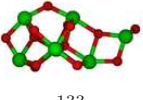


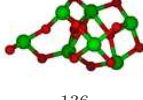
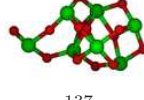
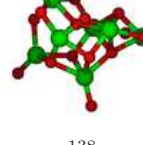
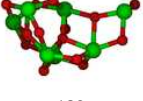
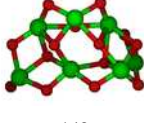

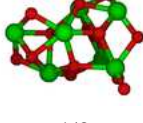
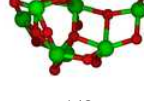

Th <sub>6</sub> O <sub>12</sub> (Continued from previous page)					
 397 O12Th6.q0.m1-1267 7.04 eV (C1)	 398 O12Th6.q0.m1-1209 7.06 eV (C1)	 399 O12Th6.q0.m1-632 7.19 eV (C1)	 400 O12Th6.q0.m1-1241 7.22 eV (C1)	 401 O12Th6.q0.m1-1231 7.23 eV (C1)	 402 O12Th6.q0.m1-504 7.31 eV (C1)
 403 O12Th6.q0.m1-1263 7.29 eV (C1)	 404 O12Th6.q0.m1-1185 7.30 eV (C1)	 405 O12Th6.q0.m1-1203 7.33 eV (C1)	 406 O12Th6.q0.m1-540 7.29 eV (C1)	 407 O12Th6.q0.m1-372 7.31 eV (C1)	 408 O12Th6.q0.m1-483 7.35 eV (C1)
 409 O12Th6.q0.m1-1014 7.38 eV (C1)	 410 O12Th6.q0.m1-1199 7.39 eV (C1)	 411 O12Th6.q0.m1-987 7.44 eV (C1)	 412 O12Th6.q0.m1-1190 7.50 eV (C1)	 413 O12Th6.q0.m1-1247 7.52 eV (C1)	 414 O12Th6.q0.m1-1251 7.60 eV (C1)
 415 O12Th6.q0.m1-1204 7.64 eV (C1)	 416 O12Th6.q0.m1-1249 7.71 eV (C1)	 417 O12Th6.q0.m1-738 7.73 eV (C1)	 418 O12Th6.q0.m1-1085 7.75 eV (C1)	 419 O12Th6.q0.m1-1223 7.71 eV (C1)	 420 O12Th6.q0.m1-1235 7.79 eV (C1)
 421 O12Th6.q0.m1-1088 7.84 eV (C1)	 422 O12Th6.q0.m1-744 7.87 eV (C1)	 423 O12Th6.q0.m1-662 7.93 eV (C1)	 424 O12Th6.q0.m1-500 7.95 eV (C1)	 425 O12Th6.q0.m1-1262 7.92 eV (C1)	 426 O12Th6.q0.m1-668 8.04 eV (C1)
 427 O12Th6.q0.m1-597 8.08 eV (C1)	 428 O12Th6.q0.m1-1091 8.11 eV (C1)	 429 O12Th6.q0.m1-1229 8.15 eV (C1)	 430 O12Th6.q0.m1-590 8.16 eV (C1)	 431 O12Th6.q0.m1-1253 8.17 eV (C1)	 432 O12Th6.q0.m1-1188 8.32 eV (C1)

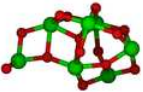
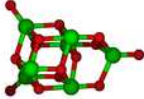
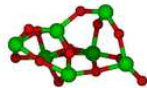
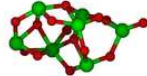
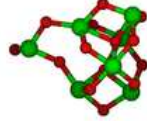
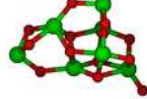

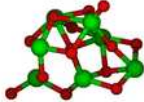
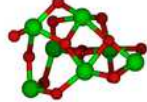
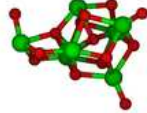
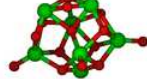
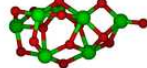
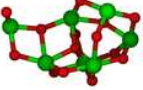
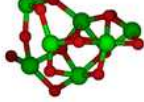
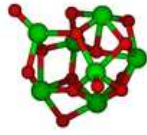

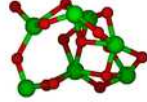


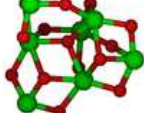
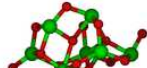
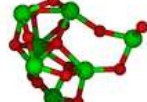
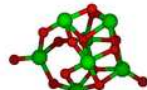
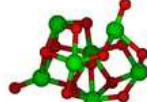
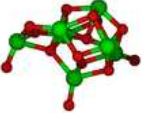
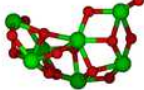
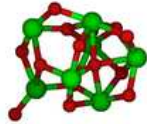


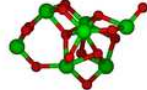
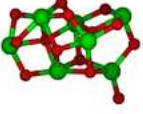
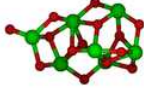
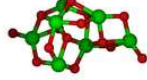
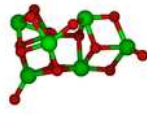
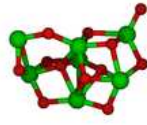
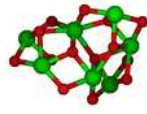
Th <sub>6</sub> O <sub>12</sub> (Continued from previous page)					
 433 O12Th6.q0.m1-507 8.37 eV (C1)	 434 O12Th6.q0.m1-1233 8.39 eV (C1)	 435 O12Th6.q0.m1-1200 8.42 eV (C1)	 436 O12Th6.q0.m1-1264 8.46 eV (C1)	 437 O12Th6.q0.m1-1238 8.47 eV (C1)	 438 O12Th6.q0.m1-1266 8.53 eV (CS)
 439 O12Th6.q0.m1-1230 8.57 eV (C1)	 440 O12Th6.q0.m1-1217 8.60 eV (C1)	 441 O12Th6.q0.m1-1212 8.65 eV (C1)	 442 O12Th6.q0.m1-1034 8.70 eV (C1)	 443 O12Th6.q0.m1-759 8.72 eV (C1)	 444 O12Th6.q0.m1-1186 8.77 eV (C1)
 445 O12Th6.q0.m1-1201 9.16 eV (C1)	 446 O12Th6.q0.m1-1187 9.21 eV (C1)	 447 O12Th6.q0.m1-1213 9.39 eV (C1)	 448 O12Th6.q0.m1-1237 9.47 eV (C1)	 449 O12Th6.q0.m1-1198 10.09 eV (C1)	 450 O12Th6.q0.m1-1234 11.18 eV (C1)
 451 O12Th6.q0.m1-1259 11.63 eV (C1)	 452 O12Th6.q0.m1-1260 11.78 eV (C1)	 453 O12Th6.q0.m1-1243 11.95 eV (C1)	 454 O12Th6.q0.m1-1205 12.08 eV (C1)	 455 O12Th6.q0.m1-1240 12.38 eV (C1)	 456 O12Th6.q0.m1-1227 12.64 eV (C1)
 457 O12Th6.q0.m1-1232 12.70 eV (C1)	 458 O12Th6.q0.m1-1216 13.54 eV (C1)	 459 O12Th6.q0.m1-1256 13.63 eV (C1)	 460 O12Th6.q0.m1-1220 14.20 eV (C1)	 461 O12Th6.q0.m1-1248 14.30 eV (C1)	 462 O12Th6.q0.m1-1194 14.30 eV (C1)
 463 O12Th6.q0.m1-1245 14.65 eV (C1)	 464 O12Th6.q0.m1-1228 15.47 eV (C1)	 465 O12Th6.q0.m1-1244 18.73 eV (C1)			

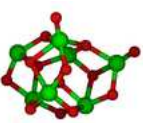
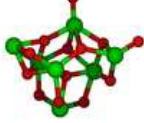
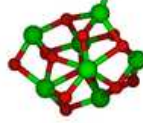
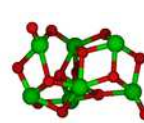
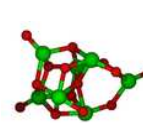
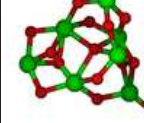
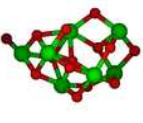
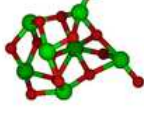
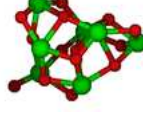
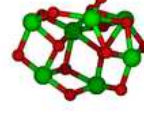
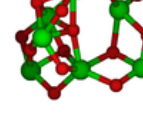
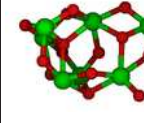
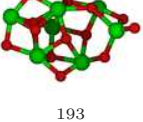
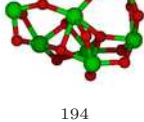
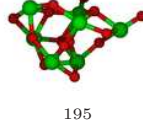
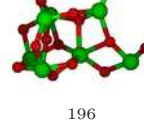
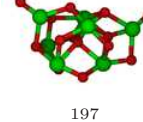


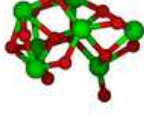
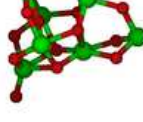


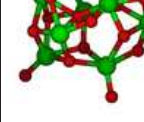
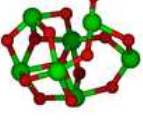
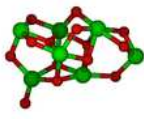
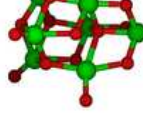


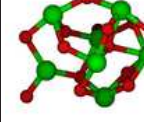
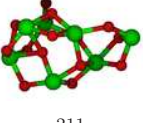
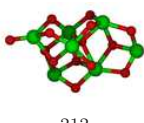
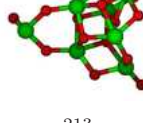

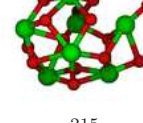

Th <sub>7</sub> O <sub>14</sub>					
 1 O14Th7.q0.m1-1040 0.000 eV (C1)	 2 O14Th7.q0.m1-1135 0.006 eV (C2)	 3 O14Th7.q0.m1-615 0.05 eV (CS)	 4 O14Th7.q0.m1-686 0.14 eV (C1)	 5 O14Th7.q0.m1-780 0.21 eV (C1)	 6 O14Th7.q0.m1-424 0.21 eV (C1)
 7 O14Th7.q0.m1-124 0.23 eV (C1)	 8 O14Th7.q0.m1-295 0.24 eV (C1)	 9 O14Th7.q0.m1-626 0.29 eV (C1)	 10 O14Th7.q0.m1-700 0.30 eV (C1)	 11 O14Th7.q0.m1-960 0.31 eV (C1)	 12 O14Th7.q0.m1-378 0.38 eV (C1)
 13 O14Th7.q0.m1-1004 0.42 eV (C1)	 14 O14Th7.q0.m1-272 0.41 eV (C1)	 15 O14Th7.q0.m1-569 0.44 eV (C1)	 16 O14Th7.q0.m1-298 0.59 eV (C1)	 17 O14Th7.q0.m1-776 0.69 eV (C2V)	 18 O14Th7.q0.m1-280 0.73 eV (CS)
 19 O14Th7.q0.m1-707 0.86 eV (C1)	 20 O14Th7.q0.m1-958 0.88 eV (C1)	 21 O14Th7.q0.m1-511 0.86 eV (C1)	 22 O14Th7.q0.m1-156 0.89 eV (C1)	 23 O14Th7.q0.m1-1086 0.97 eV (C1)	 24 O14Th7.q0.m1-15 0.99 eV (C1)
 25 O14Th7.q0.m1-147 1.04 eV (C1)	 26 O14Th7.q0.m1-557 1.01 eV (C1)	 27 O14Th7.q0.m1-310 1.05 eV (CS)	 28 O14Th7.q0.m1-919 1.08 eV (C1)	 29 O14Th7.q0.m1-262 1.10 eV (C1)	 30 O14Th7.q0.m1-194 1.12 eV (C1)
 31 O14Th7.q0.m1-263 1.13 eV (C1)	 32 O14Th7.q0.m1-342 1.16 eV (C1)	 33 O14Th7.q0.m1-727 1.17 eV (C1)	 34 O14Th7.q0.m1-1099 1.18 eV (C1)	 35 O14Th7.q0.m1-176 1.18 eV (C1)	 36 O14Th7.q0.m1-541 1.22 eV (C1)

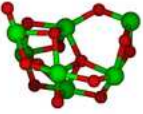
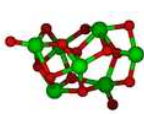
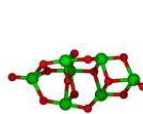
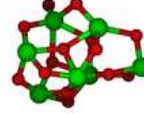
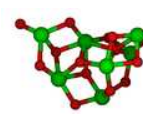
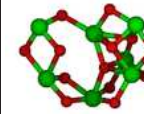
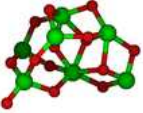
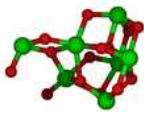
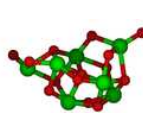
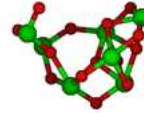
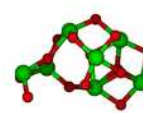
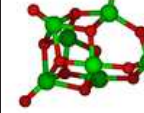
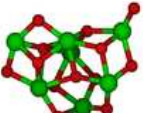
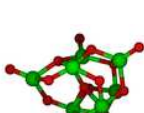
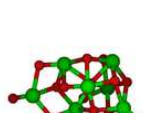
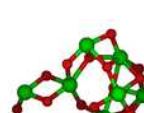
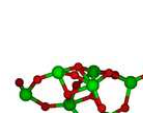
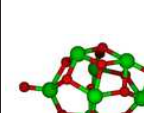
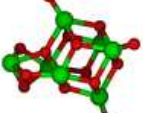
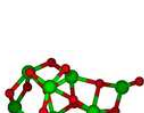
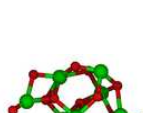
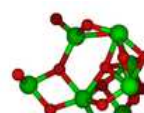
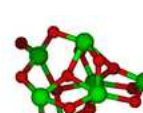
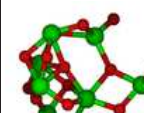
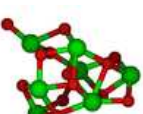
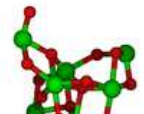
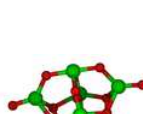
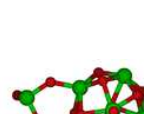

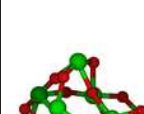
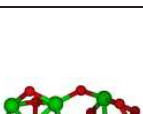
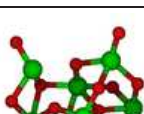
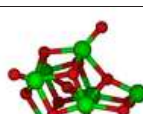
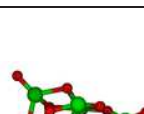
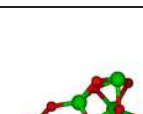
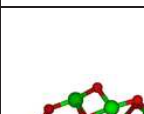
Th <sub>7</sub> O <sub>14</sub> (Continued from previous page)					
					
37 O14Th7.q0.m1-553 1.26 eV (C1)	38 O14Th7.q0.m1-125 1.27 eV (C1)	39 O14Th7.q0.m1-490 1.29 eV (C1)	40 O14Th7.q0.m1-467 1.30 eV (C1)	41 O14Th7.q0.m1-443 1.31 eV (C1)	42 O14Th7.q0.m1-925 1.33 eV (C1)
					
43 O14Th7.q0.m1-475 1.35 eV (C1)	44 O14Th7.q0.m1-1100 1.33 eV (C1)	45 O14Th7.q0.m1-824 1.33 eV (C1)	46 O14Th7.q0.m1-1056 1.40 eV (C1)	47 O14Th7.q0.m1-1142 1.40 eV (C1)	48 O14Th7.q0.m1-120 1.38 eV (C1)
					
49 O14Th7.q0.m1-944 1.41 eV (C1)	50 O14Th7.q0.m1-211 1.41 eV (C1)	51 O14Th7.q0.m1-841 1.41 eV (C1)	52 O14Th7.q0.m1-619 1.42 eV (C1)	53 O14Th7.q0.m1-757 1.39 eV (C1)	54 O14Th7.q0.m1-1096 1.43 eV (C1)
					
55 O14Th7.q0.m1-909 1.42 eV (C1)	56 O14Th7.q0.m1-240 1.42 eV (C1)	57 O14Th7.q0.m1-1015 1.46 eV (C1)	58 O14Th7.q0.m1-359 1.47 eV (C1)	59 O14Th7.q0.m1-1078 1.45 eV (C1)	60 O14Th7.q0.m1-317 1.45 eV (C1)
					
61 O14Th7.q0.m1-570 1.47 eV (C1)	62 O14Th7.q0.m1-144 1.52 eV (CS)	63 O14Th7.q0.m1-466 1.52 eV (C1)	64 O14Th7.q0.m1-954 1.56 eV (C1)	65 O14Th7.q0.m1-209 1.55 eV (C1)	66 O14Th7.q0.m1-1123 1.56 eV (C1)
					
67 O14Th7.q0.m1-301 1.55 eV (C1)	68 O14Th7.q0.m1-1062 1.55 eV (C1)	69 O14Th7.q0.m1-422 1.57 eV (C3V)	70 O14Th7.q0.m1-556 1.59 eV (C1)	71 O14Th7.q0.m1-347 1.58 eV (CS)	72 O14Th7.q0.m1-25 1.60 eV (C1)

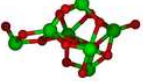
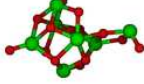
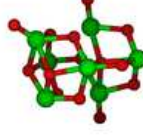

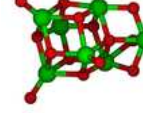
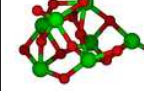
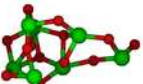
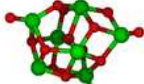
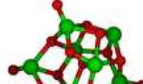
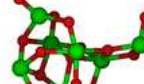
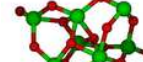
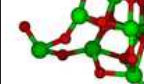
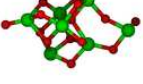
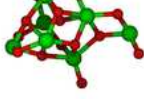
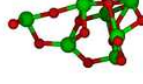
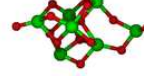
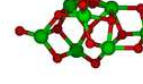
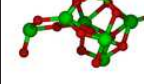
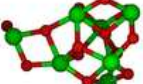
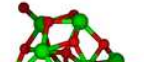

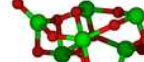
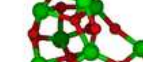
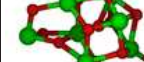
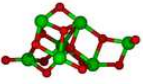
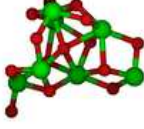

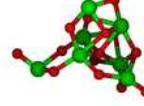
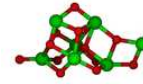
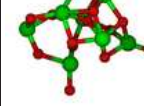
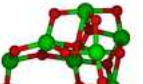
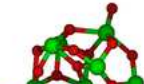
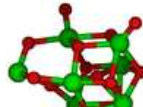
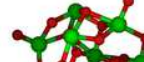
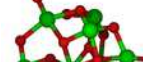

$\text{Th}_7\text{O}_{14}$ (Continued from previous page)					
 73 O14Th7.q0.m1-1122 1.59 eV (C1)	 74 O14Th7.q0.m1-271 1.61 eV (C1)	 75 O14Th7.q0.m1-228 1.62 eV (C1)	 76 O14Th7.q0.m1-184 1.62 eV (C1)	 77 O14Th7.q0.m1-1013 1.62 eV (C1)	 78 O14Th7.q0.m1-56 1.63 eV (C1)
 79 O14Th7.q0.m1-208 1.63 eV (C1)	 80 O14Th7.q0.m1-676 1.62 eV (C1)	 81 O14Th7.q0.m1-187 1.63 eV (C1)	 82 O14Th7.q0.m1-1057 1.64 eV (C1)	 83 O14Th7.q0.m1-457 1.65 eV (C1)	 84 O14Th7.q0.m1-732 1.66 eV (C1)
 85 O14Th7.q0.m1-31 1.67 eV (C1)	 86 O14Th7.q0.m1-409 1.72 eV (C1)	 87 O14Th7.q0.m1-72 1.72 eV (C1)	 88 O14Th7.q0.m1-623 1.77 eV (C1)	 89 O14Th7.q0.m1-416 1.73 eV (C1)	 90 O14Th7.q0.m1-68 1.75 eV (C1)
 91 O14Th7.q0.m1-834 1.75 eV (C1)	 92 O14Th7.q0.m1-351 1.77 eV (C1)	 93 O14Th7.q0.m1-660 1.76 eV (CS)	 94 O14Th7.q0.m1-568 1.76 eV (C1)	 95 O14Th7.q0.m1-1137 1.76 eV (C1)	 96 O14Th7.q0.m1-1018 1.79 eV (C1)
 97 O14Th7.q0.m1-1008 1.76 eV (C1)	 98 O14Th7.q0.m1-1045 1.80 eV (C1)	 99 O14Th7.q0.m1-989 1.78 eV (C1)	 100 O14Th7.q0.m1-82 1.80 eV (C1)	 101 O14Th7.q0.m1-243 1.82 eV (C1)	 102 O14Th7.q0.m1-300 1.81 eV (C1)
 103 O14Th7.q0.m1-830 1.84 eV (C1)	 104 O14Th7.q0.m1-11 1.82 eV (C1)	 105 O14Th7.q0.m1-1053 1.84 eV (C1)	 106 O14Th7.q0.m1-878 1.83 eV (C1)	 107 O14Th7.q0.m1-1152 1.85 eV (C1)	 108 O14Th7.q0.m1-166 1.89 eV (C1)

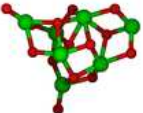
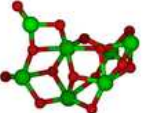

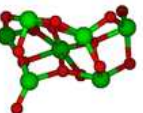
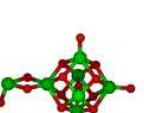
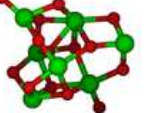
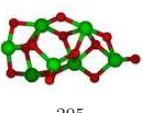
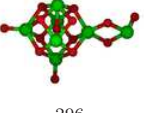
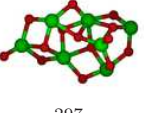


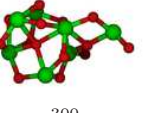
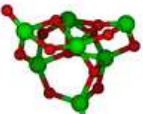
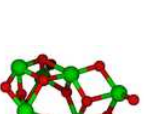
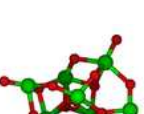
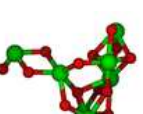
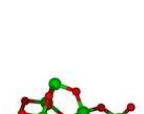
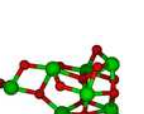
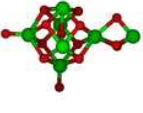
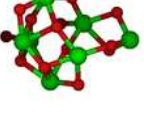
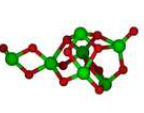
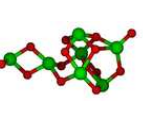
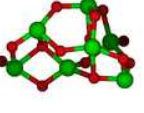
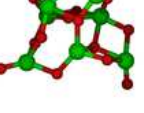
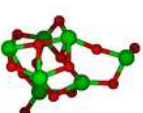
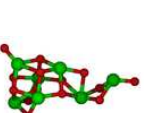
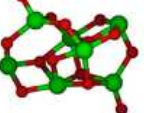

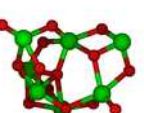
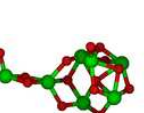
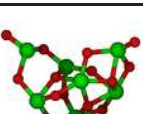
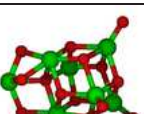
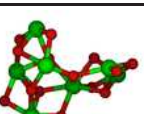
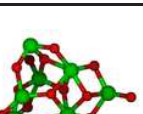
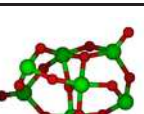
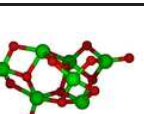
Th <sub>7</sub> O <sub>14</sub> (Continued from previous page)					
 109 O14Th7.q0.m1-57 1.89 eV (C1)	 110 O14Th7.q0.m1-1085 1.88 eV (CS)	 111 O14Th7.q0.m1-458 1.89 eV (C1)	 112 O14Th7.q0.m1-614 1.91 eV (C1)	 113 O14Th7.q0.m1-236 1.92 eV (C1)	 114 O14Th7.q0.m1-571 1.95 eV (C1)
 115 O14Th7.q0.m1-1017 1.92 eV (C1)	 116 O14Th7.q0.m1-428 1.96 eV (C1)	 117 O14Th7.q0.m1-361 1.97 eV (C1)	 118 O14Th7.q0.m1-432 1.99 eV (C1)	 119 O14Th7.q0.m1-846 1.99 eV (C1)	 120 O14Th7.q0.m1-138 1.98 eV (C1)
 121 O14Th7.q0.m1-552 2.00 eV (C1)	 122 O14Th7.q0.m1-130 1.97 eV (C1)	 123 O14Th7.q0.m1-1073 1.98 eV (C1)	 124 O14Th7.q0.m1-89 2.02 eV (C1)	 125 O14Th7.q0.m1-887 1.99 eV (C1)	 126 O14Th7.q0.m1-742 1.99 eV (C1)
 127 O14Th7.q0.m1-78 2.02 eV (C1)	 128 O14Th7.q0.m1-1097 2.02 eV (C1)	 129 O14Th7.q0.m1-246 2.03 eV (C1)	 130 O14Th7.q0.m1-123 2.02 eV (C1)	 131 O14Th7.q0.m1-278 2.03 eV (C1)	 132 O14Th7.q0.m1-222 2.03 eV (C1)
 133 O14Th7.q0.m1-369 2.03 eV (C1)	 134 O14Th7.q0.m1-126 2.06 eV (C1)	 135 O14Th7.q0.m1-781 2.05 eV (C1)	 136 O14Th7.q0.m1-171 2.04 eV (C1)	 137 O14Th7.q0.m1-175 2.04 eV (C1)	 138 O14Th7.q0.m1-71 2.06 eV (C1)
 139 O14Th7.q0.m1-702 2.07 eV (C1)	 140 O14Th7.q0.m1-1143 2.09 eV (C1)	 141 O14Th7.q0.m1-441 2.08 eV (C1)	 142 O14Th7.q0.m1-32 2.11 eV (C1)	 143 O14Th7.q0.m1-143 2.09 eV (C1)	 144 O14Th7.q0.m1-822 2.09 eV (C1)


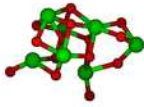
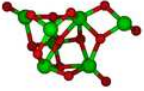
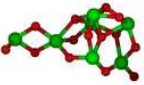
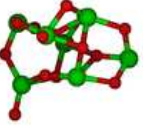




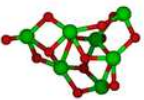
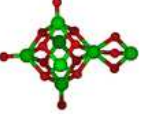
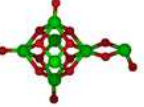
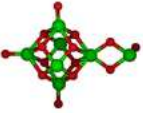
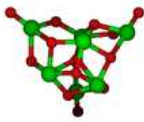
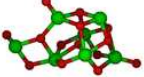

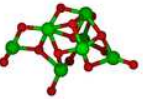
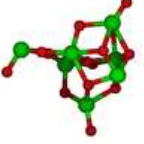


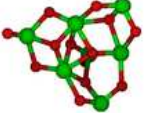
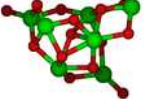
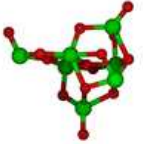
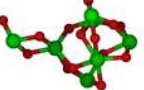
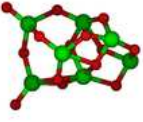

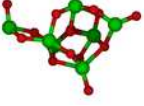
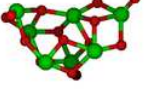
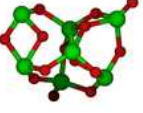
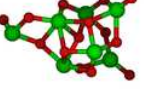
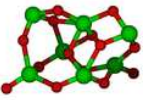
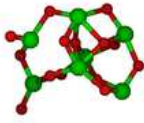
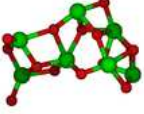
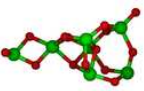
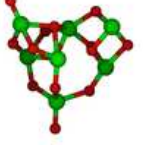

$\text{Th}_7\text{O}_{14}$ (Continued from previous page)					
					
145 O14Th7.q0.m1-1041 2.11 eV (C1)	146 O14Th7.q0.m1-1090 2.14 eV (CS)	147 O14Th7.q0.m1-285 2.14 eV (C1)	148 O14Th7.q0.m1-13 2.14 eV (C1)	149 O14Th7.q0.m1-1042 2.15 eV (C1)	150 O14Th7.q0.m1-1061 2.18 eV (CS)
					
151 O14Th7.q0.m1-1058 2.16 eV (CS)	152 O14Th7.q0.m1-1082 2.18 eV (C1)	153 O14Th7.q0.m1-625 2.17 eV (C1)	154 O14Th7.q0.m1-146 2.17 eV (C1)	155 O14Th7.q0.m1-150 2.17 eV (C1)	156 O14Th7.q0.m1-1052 2.17 eV (C1)
					
157 O14Th7.q0.m1-1074 2.17 eV (C1)	158 O14Th7.q0.m1-1005 2.18 eV (C1)	159 O14Th7.q0.m1-920 2.20 eV (C1)	160 O14Th7.q0.m1-627 2.19 eV (C1)	161 O14Th7.q0.m1-170 2.21 eV (C1)	162 O14Th7.q0.m1-255 2.19 eV (CS)
					
163 O14Th7.q0.m1-164 2.22 eV (C1)	164 O14Th7.q0.m1-938 2.25 eV (C1)	165 O14Th7.q0.m1-73 2.23 eV (C1)	166 O14Th7.q0.m1-366 2.25 eV (C1)	167 O14Th7.q0.m1-1033 2.22 eV (C1)	168 O14Th7.q0.m1-512 2.26 eV (C1)
					
169 O14Th7.q0.m1-41 2.25 eV (C1)	170 O14Th7.q0.m1-1131 2.28 eV (C1)	171 O14Th7.q0.m1-922 2.26 eV (C1)	172 O14Th7.q0.m1-837 2.26 eV (C1)	173 O14Th7.q0.m1-47 2.26 eV (C1)	174 O14Th7.q0.m1-162 2.28 eV (C1)
					
175 O14Th7.q0.m1-611 2.30 eV (C1)	176 O14Th7.q0.m1-505 2.29 eV (C1)	177 O14Th7.q0.m1-1103 2.29 eV (C1)	178 O14Th7.q0.m1-1127 2.31 eV (C1)	179 O14Th7.q0.m1-847 2.32 eV (C1)	180 O14Th7.q0.m1-576 2.35 eV (C1)

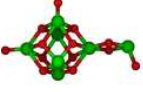
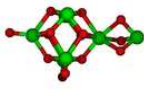
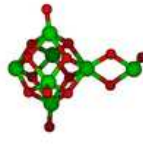
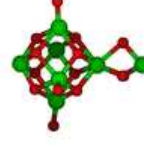
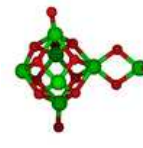
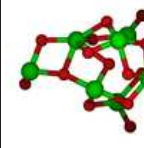
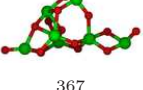
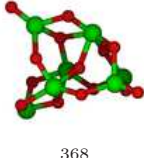
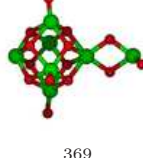

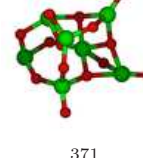
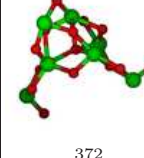
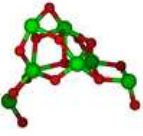
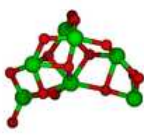
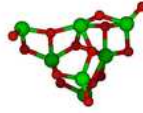
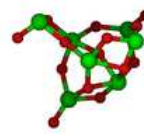

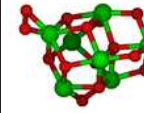


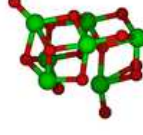
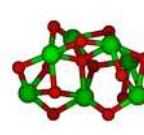
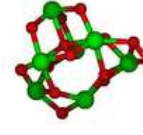

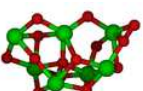

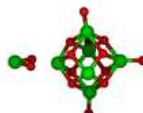
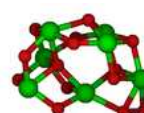

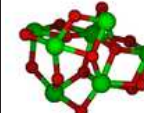
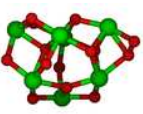
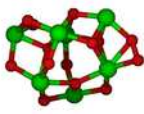
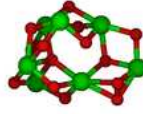
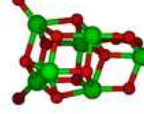
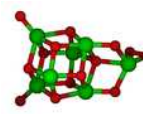

Th <sub>7</sub> O <sub>14</sub> (Continued from previous page)					
 181 O14Th7.q0.m1-242 2.31 eV (C1)	 182 O14Th7.q0.m1-400 2.32 eV (C1)	 183 O14Th7.q0.m1-315 2.33 eV (C1)	 184 O14Th7.q0.m1-681 2.33 eV (C1)	 185 O14Th7.q0.m1-1095 2.31 eV (C1)	 186 O14Th7.q0.m1-153 2.32 eV (C1)
 187 O14Th7.q0.m1-661 2.36 eV (C1)	 188 O14Th7.q0.m1-525 2.35 eV (C1)	 189 O14Th7.q0.m1-95 2.36 eV (C1)	 190 O14Th7.q0.m1-182 2.38 eV (C1)	 191 O14Th7.q0.m1-1141 2.38 eV (C1)	 192 O14Th7.q0.m1-1138 2.39 eV (C1)
 193 O14Th7.q0.m1-956 2.37 eV (C1)	 194 O14Th7.q0.m1-524 2.39 eV (C1)	 195 O14Th7.q0.m1-114 2.38 eV (C1)	 196 O14Th7.q0.m1-1130 2.38 eV (C1)	 197 O14Th7.q0.m1-411 2.39 eV (C1)	 198 O14Th7.q0.m1-1060 2.37 eV (C1)
 199 O14Th7.q0.m1-835 2.39 eV (C1)	 200 O14Th7.q0.m1-1046 2.40 eV (C1)	 201 O14Th7.q0.m1-975 2.40 eV (CS)	 202 O14Th7.q0.m1-42 2.41 eV (C1)	 203 O14Th7.q0.m1-179 2.43 eV (C1)	 204 O14Th7.q0.m1-1001 2.42 eV (C1)
 205 O14Th7.q0.m1-1114 2.42 eV (C1)	 206 O14Th7.q0.m1-268 2.44 eV (CS)	 207 O14Th7.q0.m1-396 2.43 eV (C1)	 208 O14Th7.q0.m1-122 2.44 eV (C1)	 209 O14Th7.q0.m1-603 2.43 eV (CS)	 210 O14Th7.q0.m1-1026 2.46 eV (C1)
 211 O14Th7.q0.m1-296 2.49 eV (C1)	 212 O14Th7.q0.m1-751 2.50 eV (C1)	 213 O14Th7.q0.m1-668 2.49 eV (C1)	 214 O14Th7.q0.m1-559 2.53 eV (C1)	 215 O14Th7.q0.m1-113 2.55 eV (C1)	 216 O14Th7.q0.m1-266 2.56 eV (C1)

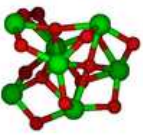
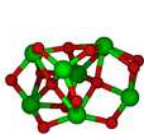


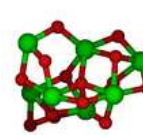
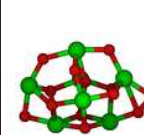

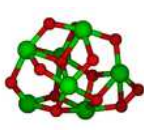
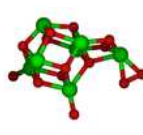
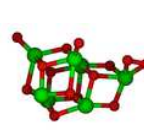
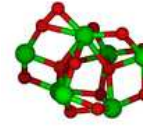
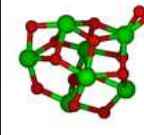
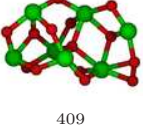
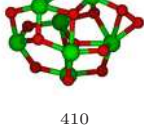
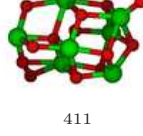
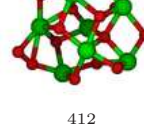
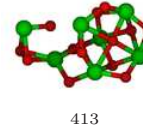
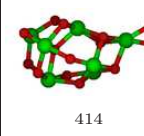
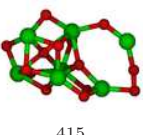


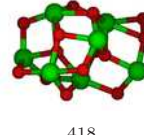
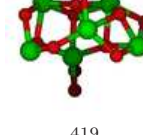
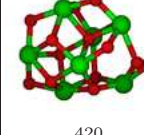
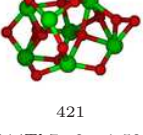



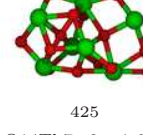
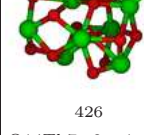
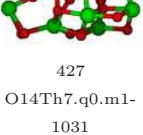
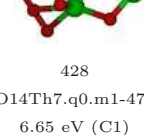
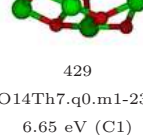
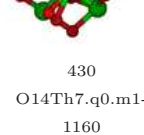
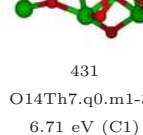
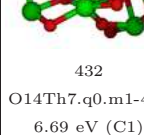
Th <sub>7</sub> O <sub>14</sub> (Continued from previous page)					
 217 O14Th7.q0.m1-624 2.58 eV (C1)	 218 O14Th7.q0.m1-1116 2.61 eV (C1)	 219 O14Th7.q0.m1-1158 2.58 eV (C1)	 220 O14Th7.q0.m1-514 2.61 eV (C1)	 221 O14Th7.q0.m1-1037 2.61 eV (C1)	 222 O14Th7.q0.m1-991 2.68 eV (C1)
 223 O14Th7.q0.m1-1044 2.65 eV (C1)	 224 O14Th7.q0.m1-753 2.68 eV (C1)	 225 O14Th7.q0.m1-160 2.69 eV (C1)	 226 O14Th7.q0.m1-360 2.71 eV (C1)	 227 O14Th7.q0.m1-596 2.72 eV (C1)	 228 O14Th7.q0.m1-932 2.68 eV (C1)
 229 O14Th7.q0.m1-855 2.72 eV (C1)	 230 O14Th7.q0.m1-562 2.71 eV (C1)	 231 O14Th7.q0.m1-297 2.74 eV (C1)	 232 O14Th7.q0.m1-449 2.76 eV (C1)	 233 O14Th7.q0.m1-387 2.71 eV (C1)	 234 O14Th7.q0.m1-383 2.75 eV (C1)
 235 O14Th7.q0.m1-1139 2.77 eV (C1)	 236 O14Th7.q0.m1-1064 2.77 eV (C1)	 237 O14Th7.q0.m1-159 2.75 eV (C1)	 238 O14Th7.q0.m1-678 2.77 eV (C1)	 239 O14Th7.q0.m1-178 2.77 eV (C1)	 240 O14Th7.q0.m1-463 2.77 eV (C1)
 241 O14Th7.q0.m1-154 2.76 eV (C1)	 242 O14Th7.q0.m1-963 2.78 eV (C1)	 243 O14Th7.q0.m1-362 2.75 eV (C1)	 244 O14Th7.q0.m1-1020 2.77 eV (C1)	 245 O14Th7.q0.m1-1012 2.78 eV (C1)	 246 O14Th7.q0.m1-453 2.78 eV (C1)
 247 O14Th7.q0.m1-509 2.82 eV (C1)	 248 O14Th7.q0.m1-756 2.77 eV (C1)	 249 O14Th7.q0.m1-1106 2.79 eV (C1)	 250 O14Th7.q0.m1-1023 2.80 eV (C1)	 251 O14Th7.q0.m1-1132 2.83 eV (C1)	 252 O14Th7.q0.m1-74 2.83 eV (C1)

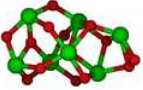
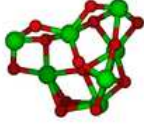
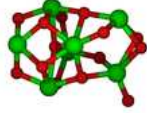
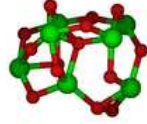
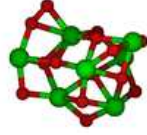
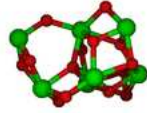
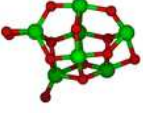
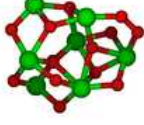

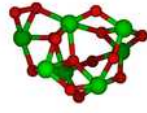
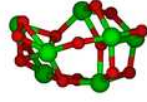
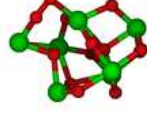
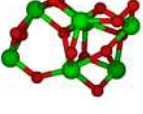
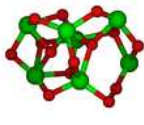
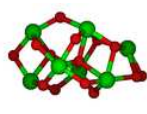
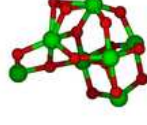
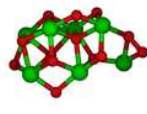
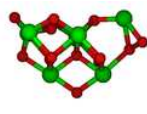
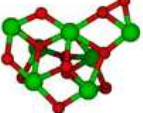
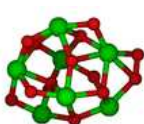

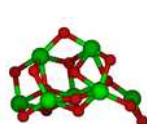
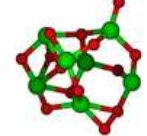
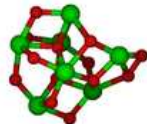
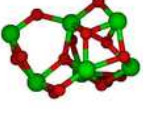
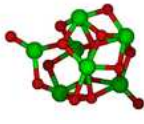
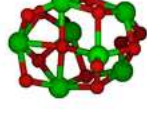
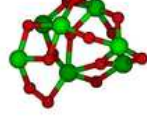
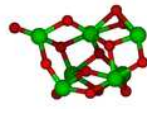
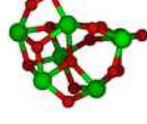
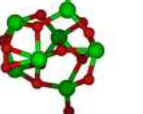
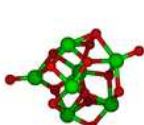
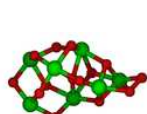

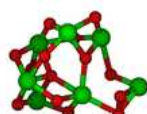
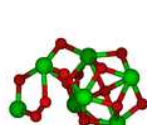
Th <sub>7</sub> O <sub>14</sub> (Continued from previous page)					
 253 O14Th7.q0.m1-593 2.84 eV (C1)	 254 O14Th7.q0.m1-286 2.84 eV (C1)	 255 O14Th7.q0.m1-498 2.86 eV (C1)	 256 O14Th7.q0.m1-290 2.87 eV (C1)	 257 O14Th7.q0.m1-1094 2.87 eV (C1)	 258 O14Th7.q0.m1-869 2.86 eV (C1)
 259 O14Th7.q0.m1-578 2.86 eV (C1)	 260 O14Th7.q0.m1-311 2.86 eV (C1)	 261 O14Th7.q0.m1-1134 2.87 eV (C1)	 262 O14Th7.q0.m1-980 2.88 eV (C1)	 263 O14Th7.q0.m1-12 2.86 eV (C1)	 264 O14Th7.q0.m1-581 2.89 eV (C1)
 265 O14Th7.q0.m1-750 2.90 eV (C1)	 266 O14Th7.q0.m1-177 2.93 eV (C1)	 267 O14Th7.q0.m1-115 2.94 eV (C1)	 268 O14Th7.q0.m1-105 2.95 eV (C1)	 269 O14Th7.q0.m1-1055 2.96 eV (C1)	 270 O14Th7.q0.m1-445 2.97 eV (C1)
 271 O14Th7.q0.m1-876 2.96 eV (C1)	 272 O14Th7.q0.m1-889 2.99 eV (C1)	 273 O14Th7.q0.m1-10 2.99 eV (C1)	 274 O14Th7.q0.m1-560 2.99 eV (C1)	 275 O14Th7.q0.m1-691 3.01 eV (C1)	 276 O14Th7.q0.m1-765 3.01 eV (C1)
 277 O14Th7.q0.m1-18 3.02 eV (C1)	 278 O14Th7.q0.m1-1054 3.03 eV (C1)	 279 O14Th7.q0.m1-657 3.04 eV (C1)	 280 O14Th7.q0.m1-965 3.03 eV (C1)	 281 O14Th7.q0.m1-664 3.04 eV (C1)	 282 O14Th7.q0.m1-682 3.05 eV (C1)
 283 O14Th7.q0.m1-450 3.05 eV (C1)	 284 O14Th7.q0.m1-594 3.07 eV (C1)	 285 O14Th7.q0.m1-381 3.09 eV (C1)	 286 O14Th7.q0.m1-1035 3.10 eV (C1)	 287 O14Th7.q0.m1-772 3.11 eV (C1)	 288 O14Th7.q0.m1-696 3.10 eV (C1)


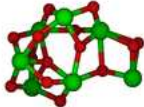

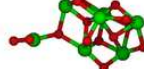
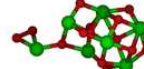
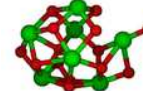
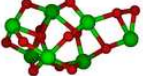
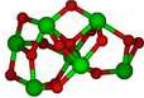



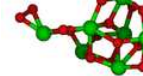
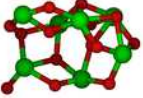
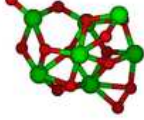
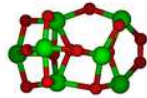
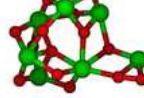
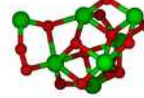

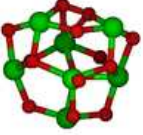
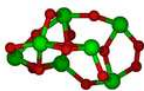
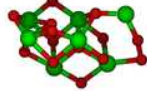
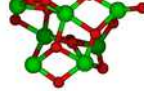
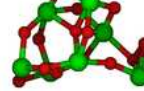
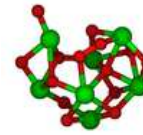
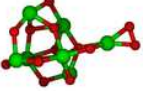
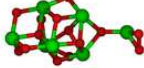
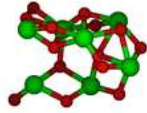
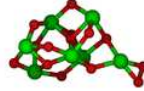
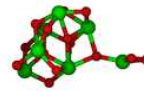
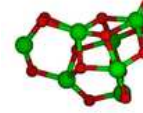
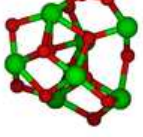
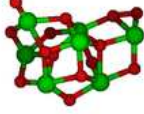
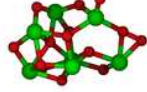
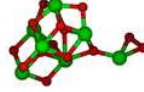
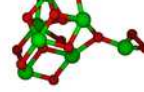
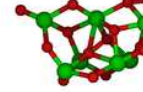
$\text{Th}_7\text{O}_{14}$ (Continued from previous page)					
 289 O14Th7.q0.m1-8 3.09 eV (C1)	 290 O14Th7.q0.m1-1083 3.12 eV (C1)	 291 O14Th7.q0.m1-431 3.14 eV (C1)	 292 O14Th7.q0.m1-820 3.16 eV (C1)	 293 O14Th7.q0.m1-744 3.18 eV (C1)	 294 O14Th7.q0.m1-1126 3.18 eV (C1)
 295 O14Th7.q0.m1-302 3.17 eV (C1)	 296 O14Th7.q0.m1-44 3.20 eV (C1)	 297 O14Th7.q0.m1-23 3.18 eV (C1)	 298 O14Th7.q0.m1-890 3.20 eV (C1)	 299 O14Th7.q0.m1-258 3.22 eV (C1)	 300 O14Th7.q0.m1-563 3.22 eV (C1)
 301 O14Th7.q0.m1-152 3.20 eV (C1)	 302 O14Th7.q0.m1-993 3.22 eV (C1)	 303 O14Th7.q0.m1-667 3.22 eV (C1)	 304 O14Th7.q0.m1-1150 3.26 eV (C1)	 305 O14Th7.q0.m1-689 3.25 eV (C1)	 306 O14Th7.q0.m1-662 3.24 eV (C1)
 307 O14Th7.q0.m1-21 3.27 eV (C1)	 308 O14Th7.q0.m1-183 3.25 eV (C1)	 309 O14Th7.q0.m1-135 3.27 eV (C1)	 310 O14Th7.q0.m1-637 3.27 eV (C1)	 311 O14Th7.q0.m1-5 3.24 eV (C1)	 312 O14Th7.q0.m1-388 3.25 eV (C1)
 313 O14Th7.q0.m1-482 3.26 eV (C1)	 314 O14Th7.q0.m1-447 3.29 eV (C1)	 315 O14Th7.q0.m1-157 3.27 eV (C1)	 316 O14Th7.q0.m1-52 3.26 eV (C1)	 317 O14Th7.q0.m1-564 3.28 eV (C1)	 318 O14Th7.q0.m1-250 3.30 eV (C1)
 319 O14Th7.q0.m1-1091 3.28 eV (C1)	 320 O14Th7.q0.m1-590 3.33 eV (C1)	 321 O14Th7.q0.m1-730 3.39 eV (C1)	 322 O14Th7.q0.m1-1112 3.38 eV (C1)	 323 O14Th7.q0.m1-1050 3.36 eV (C1)	 324 O14Th7.q0.m1-885 3.40 eV (C1)

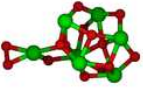
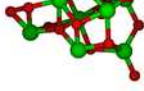
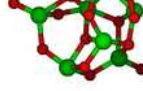
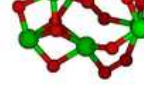

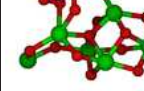
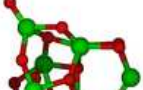
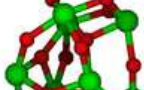
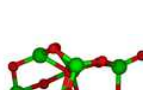
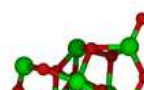
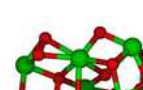
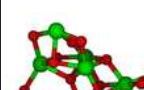
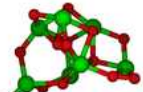
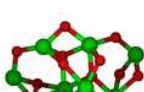
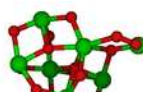
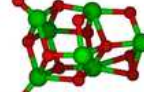
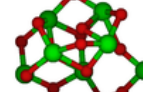
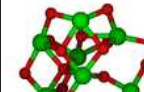
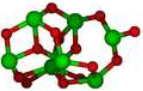
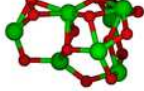
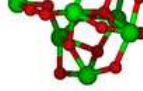
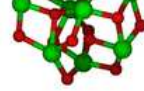
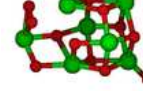
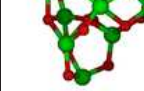
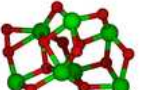
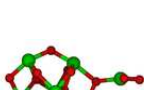
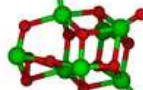
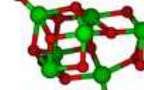
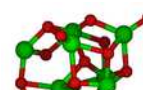
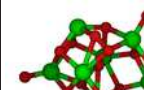
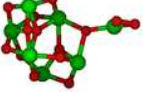

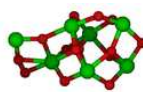
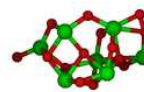
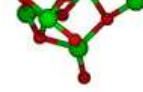
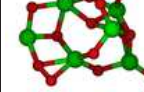
Th <sub>7</sub> O <sub>14</sub> (Continued from previous page)					
 325 O14Th7.q0.m1-148 3.39 eV (C1)	 326 O14Th7.q0.m1-276 3.42 eV (CS)	 327 O14Th7.q0.m1-547 3.40 eV (C1)	 328 O14Th7.q0.m1-479 3.41 eV (C1)	 329 O14Th7.q0.m1-307 3.44 eV (C1)	 330 O14Th7.q0.m1-1075 3.48 eV (C1)
 331 O14Th7.q0.m1-336 3.51 eV (CS)	 332 O14Th7.q0.m1-812 3.50 eV (C1)	 333 O14Th7.q0.m1-900 3.51 eV (C1)	 334 O14Th7.q0.m1-391 3.52 eV (C1)	 335 O14Th7.q0.m1-597 3.56 eV (C1)	 336 O14Th7.q0.m1-604 3.60 eV (C1)
 337 O14Th7.q0.m1-1039 3.61 eV (C1)	 338 O14Th7.q0.m1-195 3.60 eV (C1)	 339 O14Th7.q0.m1-136 3.63 eV (C1)	 340 O14Th7.q0.m1-394 3.65 eV (C1)	 341 O14Th7.q0.m1-674 3.66 eV (C1)	 342 O14Th7.q0.m1-1034 3.74 eV (C1)
 343 O14Th7.q0.m1-117 3.74 eV (C1)	 344 O14Th7.q0.m1-899 3.74 eV (C1)	 345 O14Th7.q0.m1-107 3.74 eV (C1)	 346 O14Th7.q0.m1-1159 3.77 eV (C1)	 347 O14Th7.q0.m1-573 3.80 eV (C1)	 348 O14Th7.q0.m1-259 3.85 eV (C1)
 349 O14Th7.q0.m1-106 3.82 eV (C1)	 350 O14Th7.q0.m1-247 3.92 eV (C1)	 351 O14Th7.q0.m1-77 3.92 eV (C1)	 352 O14Th7.q0.m1-1051 3.92 eV (C1)	 353 O14Th7.q0.m1-997 3.91 eV (C1)	 354 O14Th7.q0.m1-1043 3.94 eV (C1)
 355 O14Th7.q0.m1-692 3.94 eV (C1)	 356 O14Th7.q0.m1-417 3.96 eV (C1)	 357 O14Th7.q0.m1-459 4.01 eV (C1)	 358 O14Th7.q0.m1-249 3.99 eV (C1)	 359 O14Th7.q0.m1-149 3.98 eV (C1)	 360 O14Th7.q0.m1-521 4.04 eV (C1)



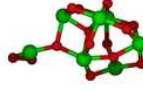

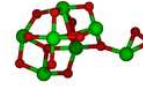

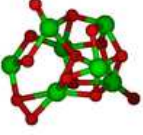

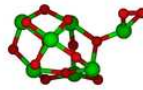
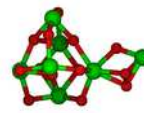
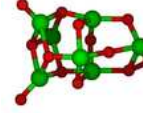
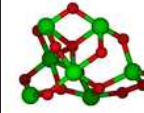

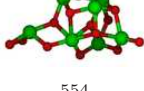

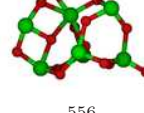

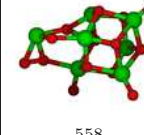
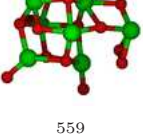
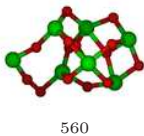
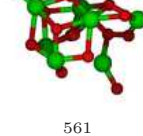
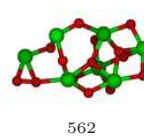
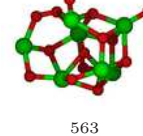
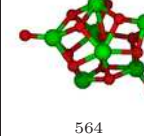
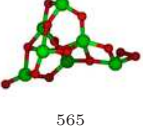

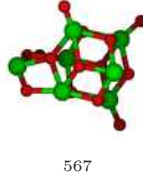
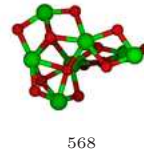
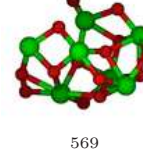
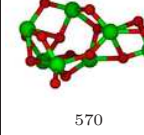

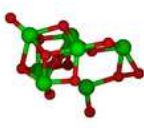
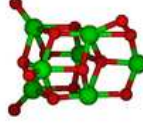

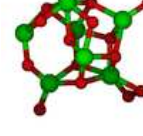
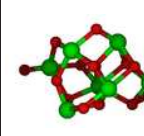
$\text{Th}_7\text{O}_{14}$ (Continued from previous page)					
					
361 O14Th7.q0.m1-420 4.04 eV (C1)	362 O14Th7.q0.m1-419 4.05 eV (C1)	363 O14Th7.q0.m1-434 4.08 eV (C1)	364 O14Th7.q0.m1-481 4.09 eV (C1)	365 O14Th7.q0.m1-655 4.09 eV (C1)	366 O14Th7.q0.m1-316 4.11 eV (C1)
					
367 O14Th7.q0.m1-9 4.12 eV (C1)	368 O14Th7.q0.m1-451 4.13 eV (C1)	369 O14Th7.q0.m1-1140 4.20 eV (C1)	370 O14Th7.q0.m1-943 4.36 eV (C1)	371 O14Th7.q0.m1-693 4.40 eV (C1)	372 O14Th7.q0.m1-728 4.49 eV (C1)
					
373 O14Th7.q0.m1-731 4.50 eV (C1)	374 O14Th7.q0.m1-418 4.54 eV (C1)	375 O14Th7.q0.m1-332 4.61 eV (C1)	376 O14Th7.q0.m1-6 4.78 eV (C1)	377 O14Th7.q0.m1-373 5.39 eV (C1)	378 O14Th7.q0.m1-828 5.48 eV (C1)
					
379 O14Th7.q0.m1-1102 5.58 eV (C1)	380 O14Th7.q0.m1-328 5.59 eV (CS)	381 O14Th7.q0.m1-118 5.65 eV (C1)	382 O14Th7.q0.m1-190 5.69 eV (C1)	383 O14Th7.q0.m1-533 5.79 eV (C1)	384 O14Th7.q0.m1-119 5.83 eV (C1)
					
385 O14Th7.q0.m1-586 5.95 eV (C1)	386 O14Th7.q0.m1-323 5.95 eV (C1)	387 O14Th7.q0.m1-397 6.03 eV (C1)	388 O14Th7.q0.m1-368 6.09 eV (C1)	389 O14Th7.q0.m1-329 6.10 eV (CS)	390 O14Th7.q0.m1-905 6.18 eV (C1)
					
391 O14Th7.q0.m1-241 6.17 eV (C1)	392 O14Th7.q0.m1-142 6.19 eV (C1)	393 O14Th7.q0.m1-17 6.23 eV (C1)	394 O14Th7.q0.m1-134 6.22 eV (CS)	395 O14Th7.q0.m1-327 6.27 eV (C1)	396 O14Th7.q0.m1-798 6.28 eV (C1)

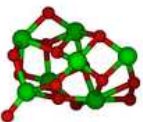
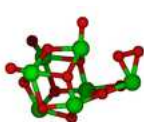
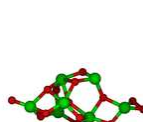
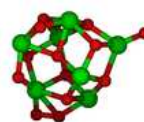
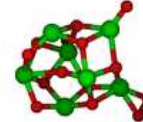
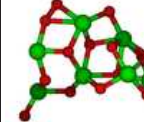
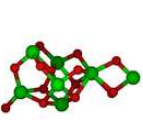

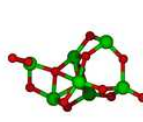

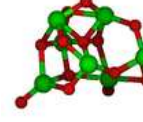
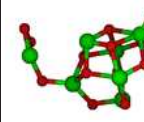
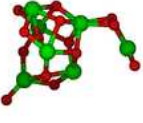
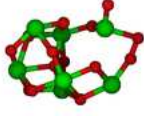
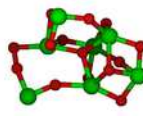
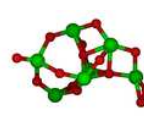
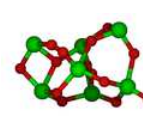
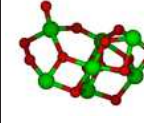
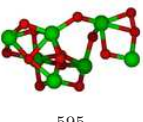
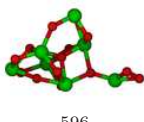

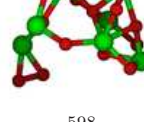
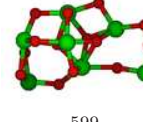
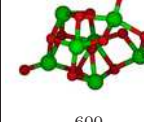
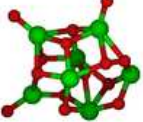
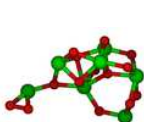
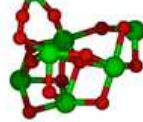
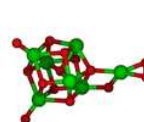
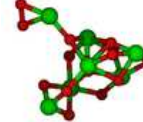
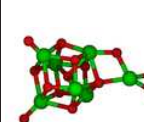
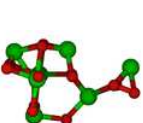
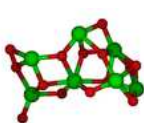
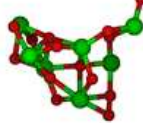
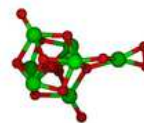

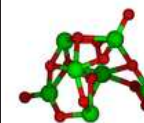
Th <sub>7</sub> O <sub>14</sub> (Continued from previous page)					
					
397 O14Th7.q0.m1-1087 6.32 eV (C1)	398 O14Th7.q0.m1-719 6.31 eV (C1)	399 O14Th7.q0.m1-981 6.31 eV (C1)	400 O14Th7.q0.m1-917 6.34 eV (C1)	401 O14Th7.q0.m1-100 6.36 eV (C1)	402 O14Th7.q0.m1-282 6.36 eV (C1)
					
403 O14Th7.q0.m1-354 6.36 eV (C1)	404 O14Th7.q0.m1-823 6.37 eV (C1)	405 O14Th7.q0.m1-141 6.38 eV (C1)	406 O14Th7.q0.m1-470 6.38 eV (C1)	407 O14Th7.q0.m1-436 6.42 eV (C1)	408 O14Th7.q0.m1-821 6.37 eV (C1)
					
409 O14Th7.q0.m1-1028 6.40 eV (C1)	410 O14Th7.q0.m1-233 6.40 eV (C1)	411 O14Th7.q0.m1-440 6.43 eV (C1)	412 O14Th7.q0.m1-663 6.45 eV (C1)	413 O14Th7.q0.m1-48 6.54 eV (C1)	414 O14Th7.q0.m1-968 6.50 eV (C1)
					
415 O14Th7.q0.m1-1136 6.53 eV (C1)	416 O14Th7.q0.m1-181 6.51 eV (C1)	417 O14Th7.q0.m1-370 6.52 eV (C1)	418 O14Th7.q0.m1-288 6.54 eV (C1)	419 O14Th7.q0.m1-350 6.55 eV (C1)	420 O14Th7.q0.m1-1108 6.56 eV (C1)
					
421 O14Th7.q0.m1-504 6.54 eV (C1)	422 O14Th7.q0.m1-256 6.56 eV (C1)	423 O14Th7.q0.m1-697 6.57 eV (C1)	424 O14Th7.q0.m1-49 6.60 eV (C1)	425 O14Th7.q0.m1-936 6.60 eV (C1)	426 O14Th7.q0.m1-426 6.60 eV (C1)
					
427 O14Th7.q0.m1-1031 6.67 eV (C1)	428 O14Th7.q0.m1-476 6.65 eV (C1)	429 O14Th7.q0.m1-234 6.65 eV (C1)	430 O14Th7.q0.m1-1160 6.66 eV (C1)	431 O14Th7.q0.m1-37 6.71 eV (C1)	432 O14Th7.q0.m1-496 6.69 eV (C1)

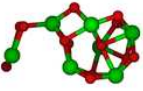
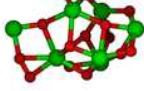
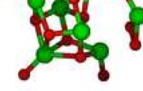
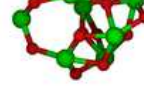
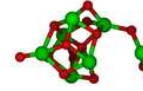
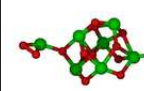
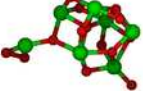
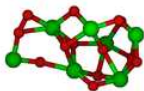
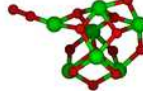
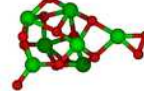
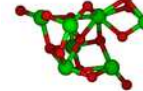
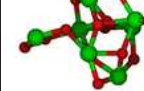
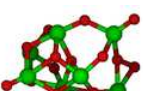
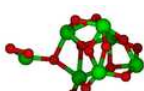
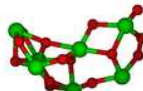
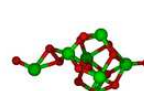
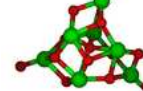
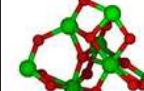
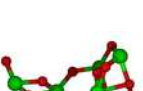
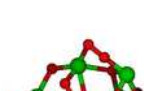
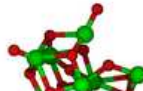
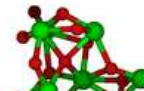

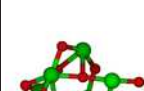
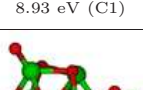
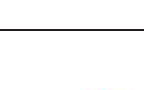

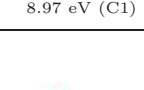
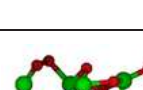

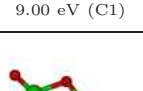
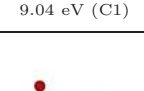
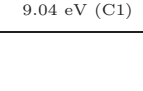
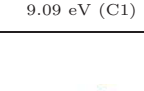
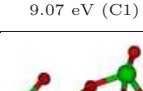
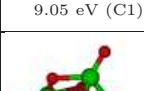
$\text{Th}_7\text{O}_{14}$ (Continued from previous page)					
 433 O14Th7.q0.m1-29 6.69 eV (C1)	 434 O14Th7.q0.m1-748 6.73 eV (C1)	 435 O14Th7.q0.m1-379 6.71 eV (C1)	 436 O14Th7.q0.m1-722 6.74 eV (C1)	 437 O14Th7.q0.m1-931 6.73 eV (C1)	 438 O14Th7.q0.m1-907 6.76 eV (C1)
 439 O14Th7.q0.m1-1161 6.74 eV (C1)	 440 O14Th7.q0.m1-616 6.79 eV (C1)	 441 O14Th7.q0.m1-1115 6.77 eV (C1)	 442 O14Th7.q0.m1-260 6.77 eV (C1)	 443 O14Th7.q0.m1-916 6.78 eV (C1)	 444 O14Th7.q0.m1-688 6.81 eV (C1)
 445 O14Th7.q0.m1-257 6.83 eV (C1)	 446 O14Th7.q0.m1-874 6.84 eV (C1)	 447 O14Th7.q0.m1-128 6.83 eV (C1)	 448 O14Th7.q0.m1-61 6.87 eV (C1)	 449 O14Th7.q0.m1-827 6.90 eV (C1)	 450 O14Th7.q0.m1-633 6.90 eV (C1)
 451 O14Th7.q0.m1-346 6.93 eV (C1)	 452 O14Th7.q0.m1-501 6.90 eV (C1)	 453 O14Th7.q0.m1-1157 6.91 eV (C1)	 454 O14Th7.q0.m1-743 6.94 eV (C1)	 455 O14Th7.q0.m1-1164 6.91 eV (C1)	 456 O14Th7.q0.m1-324 6.95 eV (C1)
 457 O14Th7.q0.m1-189 6.96 eV (C1)	 458 O14Th7.q0.m1-104 6.98 eV (C1)	 459 O14Th7.q0.m1-644 6.98 eV (C1)	 460 O14Th7.q0.m1-913 6.99 eV (C1)	 461 O14Th7.q0.m1-219 6.97 eV (C1)	 462 O14Th7.q0.m1-237 6.98 eV (C1)
 463 O14Th7.q0.m1-1155 7.00 eV (CS)	 464 O14Th7.q0.m1-304 7.01 eV (C1)	 465 O14Th7.q0.m1-193 7.01 eV (C1)	 466 O14Th7.q0.m1-90 7.05 eV (C1)	 467 O14Th7.q0.m1-367 7.07 eV (C1)	 468 O14Th7.q0.m1-572 7.12 eV (C1)


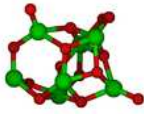
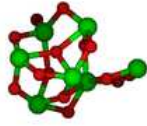
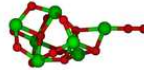
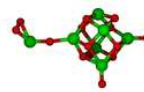


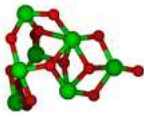
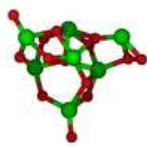

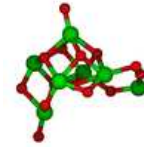
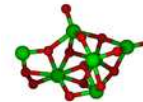

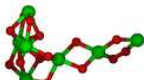
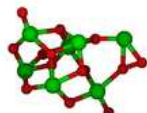
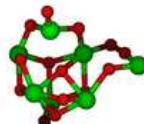
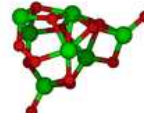
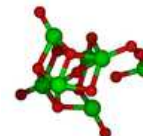
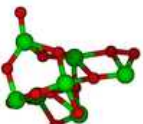
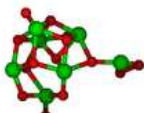
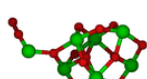
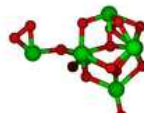
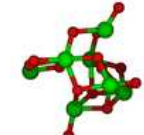
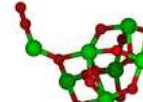

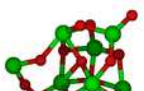
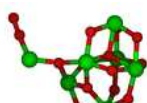
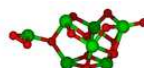
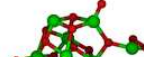

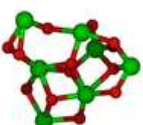
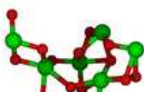


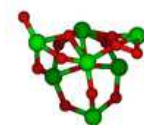
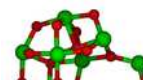
Th <sub>7</sub> O <sub>14</sub> (Continued from previous page)					
 469 O14Th7.q0.m1-1067 7.10 eV (C1)	 470 O14Th7.q0.m1-406 7.11 eV (C1)	 471 O14Th7.q0.m1-60 7.11 eV (C1)	 472 O14Th7.q0.m1-468 7.13 eV (C1)	 473 O14Th7.q0.m1-46 7.14 eV (C1)	 474 O14Th7.q0.m1-1163 7.11 eV (C1)
 475 O14Th7.q0.m1-515 7.15 eV (C1)	 476 O14Th7.q0.m1-724 7.16 eV (C1)	 477 O14Th7.q0.m1-500 7.15 eV (C1)	 478 O14Th7.q0.m1-371 7.18 eV (C1)	 479 O14Th7.q0.m1-906 7.18 eV (C1)	 480 O14Th7.q0.m1-718 7.19 eV (C1)
 481 O14Th7.q0.m1-1118 7.22 eV (C1)	 482 O14Th7.q0.m1-456 7.22 eV (C1)	 483 O14Th7.q0.m1-423 7.25 eV (C1)	 484 O14Th7.q0.m1-904 7.23 eV (C1)	 485 O14Th7.q0.m1-698 7.28 eV (C1)	 486 O14Th7.q0.m1-1049 7.27 eV (C1)
 487 O14Th7.q0.m1-1154 7.27 eV (C1)	 488 O14Th7.q0.m1-188 7.33 eV (C1)	 489 O14Th7.q0.m1-1089 7.34 eV (C1)	 490 O14Th7.q0.m1-826 7.30 eV (C1)	 491 O14Th7.q0.m1-862 7.32 eV (C1)	 492 O14Th7.q0.m1-1162 7.35 eV (C1)
 493 O14Th7.q0.m1-33 7.33 eV (C1)	 494 O14Th7.q0.m1-971 7.36 eV (C1)	 495 O14Th7.q0.m1-941 7.37 eV (C1)	 496 O14Th7.q0.m1-685 7.33 eV (C1)	 497 O14Th7.q0.m1-4 7.41 eV (C1)	 498 O14Th7.q0.m1-767 7.39 eV (C1)
 499 O14Th7.q0.m1-1088 7.41 eV (C1)	 500 O14Th7.q0.m1-927 7.38 eV (C1)	 501 O14Th7.q0.m1-474 7.39 eV (C1)	 502 O14Th7.q0.m1-2 7.42 eV (C1)	 503 O14Th7.q0.m1-1 7.43 eV (C1)	 504 O14Th7.q0.m1-792 7.38 eV (C1)

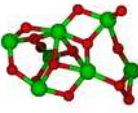
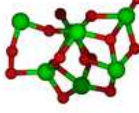
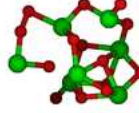
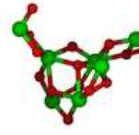
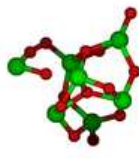

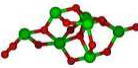
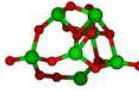

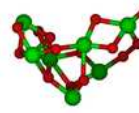
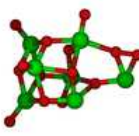
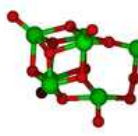

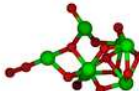

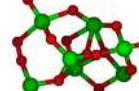
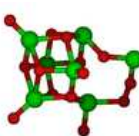
$\text{Th}_7\text{O}_{14}$ (Continued from previous page)					
					
505 O14Th7.q0.m1-898 7.41 eV (C1)	506 O14Th7.q0.m1-137 7.42 eV (C1)	507 O14Th7.q0.m1-103 7.43 eV (C1)	508 O14Th7.q0.m1-191 7.47 eV (C1)	509 O14Th7.q0.m1-914 7.47 eV (C1)	510 O14Th7.q0.m1-673 7.52 eV (C1)
					
511 O14Th7.q0.m1-789 7.49 eV (C1)	512 O14Th7.q0.m1-225 7.48 eV (C1)	513 O14Th7.q0.m1-218 7.48 eV (C1)	514 O14Th7.q0.m1-109 7.52 eV (C1)	515 O14Th7.q0.m1-414 7.53 eV (C1)	516 O14Th7.q0.m1-1098 7.53 eV (C1)
					
517 O14Th7.q0.m1-251 7.53 eV (C1)	518 O14Th7.q0.m1-101 7.58 eV (C1)	519 O14Th7.q0.m1-542 7.57 eV (C1)	520 O14Th7.q0.m1-788 7.56 eV (C1)	521 O14Th7.q0.m1-872 7.62 eV (C1)	522 O14Th7.q0.m1-1128 7.62 eV (C1)
					
523 O14Th7.q0.m1-213 7.59 eV (C1)	524 O14Th7.q0.m1-790 7.63 eV (C1)	525 O14Th7.q0.m1-492 7.65 eV (C1)	526 O14Th7.q0.m1-79 7.66 eV (C1)	527 O14Th7.q0.m1-462 7.64 eV (C1)	528 O14Th7.q0.m1-1147 7.65 eV (C1)
					
529 O14Th7.q0.m1-140 7.69 eV (C1)	530 O14Th7.q0.m1-325 7.69 eV (C1)	531 O14Th7.q0.m1-598 7.68 eV (C1)	532 O14Th7.q0.m1-802 7.69 eV (C1)	533 O14Th7.q0.m1-197 7.71 eV (C1)	534 O14Th7.q0.m1-607 7.72 eV (C1)
					
535 O14Th7.q0.m1-129 7.74 eV (C1)	536 O14Th7.q0.m1-1071 7.79 eV (C1)	537 O14Th7.q0.m1-1070 7.80 eV (C1)	538 O14Th7.q0.m1-1047 7.79 eV (C1)	539 O14Th7.q0.m1-592 7.78 eV (C1)	540 O14Th7.q0.m1-770 7.79 eV (C1)

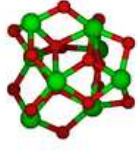
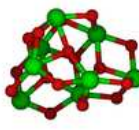


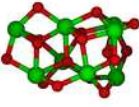

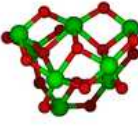
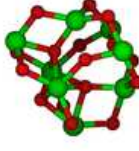
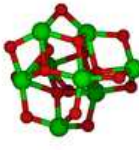
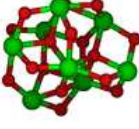
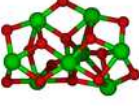
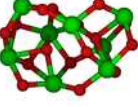
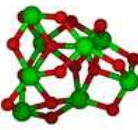
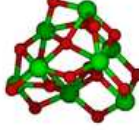
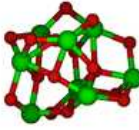
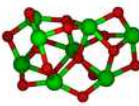
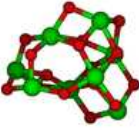
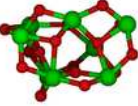
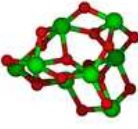
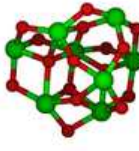
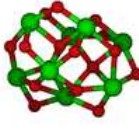
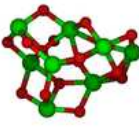

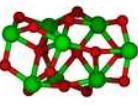
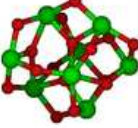
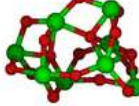
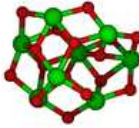
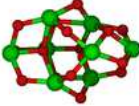
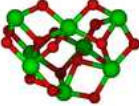
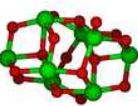
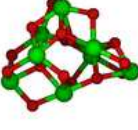
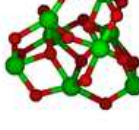
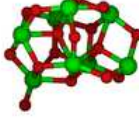
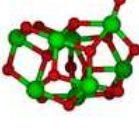
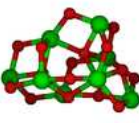
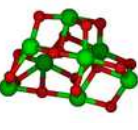
Th <sub>7</sub> O <sub>14</sub> (Continued from previous page)					
 541 O14Th7.q0.m1-1124 7.81 eV (C1)	 542 O14Th7.q0.m1-513 7.81 eV (C1)	 543 O14Th7.q0.m1-536 7.83 eV (C1)	 544 O14Th7.q0.m1-746 7.85 eV (C1)	 545 O14Th7.q0.m1-28 7.84 eV (C1)	 546 O14Th7.q0.m1-703 7.86 eV (C1)
 547 O14Th7.q0.m1-983 7.84 eV (C1)	 548 O14Th7.q0.m1-585 7.86 eV (C1)	 549 O14Th7.q0.m1-861 7.87 eV (C1)	 550 O14Th7.q0.m1-158 7.90 eV (C1)	 551 O14Th7.q0.m1-1107 7.86 eV (C1)	 552 O14Th7.q0.m1-1166 7.90 eV (C1)
 553 O14Th7.q0.m1-1069 7.95 eV (C1)	 554 O14Th7.q0.m1-358 7.93 eV (C1)	 555 O14Th7.q0.m1-793 7.94 eV (C1)	 556 O14Th7.q0.m1-85 7.93 eV (C1)	 557 O14Th7.q0.m1-16 7.93 eV (C1)	 558 O14Th7.q0.m1-892 7.95 eV (C1)
 559 O14Th7.q0.m1-469 7.96 eV (C1)	 560 O14Th7.q0.m1-910 7.98 eV (C1)	 561 O14Th7.q0.m1-402 8.00 eV (C1)	 562 O14Th7.q0.m1-99 8.01 eV (C1)	 563 O14Th7.q0.m1-165 8.00 eV (C1)	 564 O14Th7.q0.m1-1007 8.01 eV (C1)
 565 O14Th7.q0.m1-1009 7.98 eV (C1)	 566 O14Th7.q0.m1-961 7.98 eV (C1)	 567 O14Th7.q0.m1-291 8.03 eV (C1)	 568 O14Th7.q0.m1-844 8.10 eV (C1)	 569 O14Th7.q0.m1-1133 8.10 eV (C1)	 570 O14Th7.q0.m1-54 8.15 eV (C1)
 571 O14Th7.q0.m1-1165 8.13 eV (C1)	 572 O14Th7.q0.m1-439 8.14 eV (C1)	 573 O14Th7.q0.m1-139 8.15 eV (C1)	 574 O14Th7.q0.m1-1120 8.15 eV (C1)	 575 O14Th7.q0.m1-1146 8.15 eV (C1)	 576 O14Th7.q0.m1-1081 8.16 eV (C1)

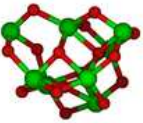
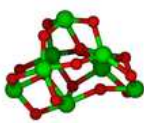
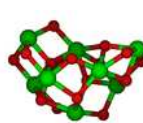
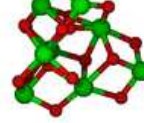
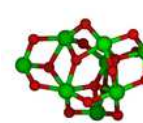
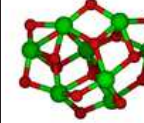
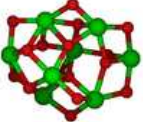
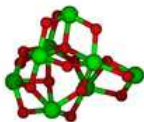
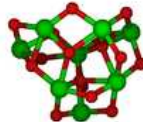
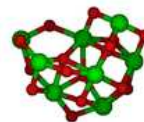
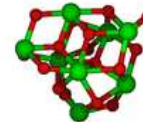
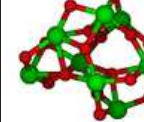
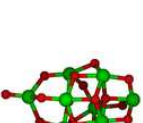
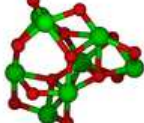
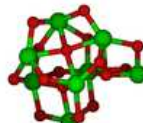
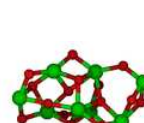
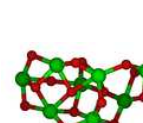
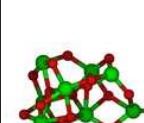
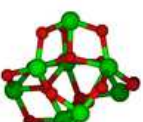
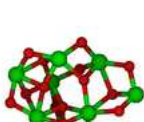

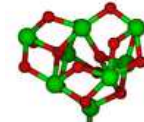
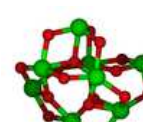
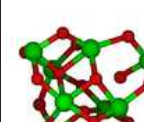

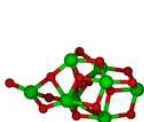
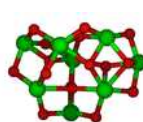
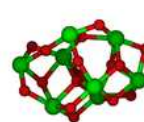


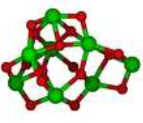
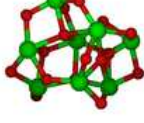
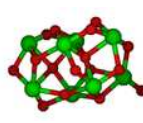
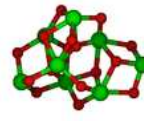
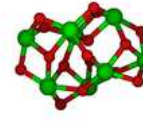
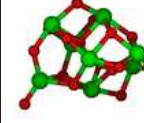
Th <sub>7</sub> O <sub>14</sub> (Continued from previous page)					
 577 O14Th7.q0.m1-531 8.19 eV (C1)	 578 O14Th7.q0.m1-415 8.17 eV (C1)	 579 O14Th7.q0.m1-1145 8.15 eV (C1)	 580 O14Th7.q0.m1-518 8.19 eV (C1)	 581 O14Th7.q0.m1-111 8.19 eV (C1)	 582 O14Th7.q0.m1-550 8.25 eV (C1)
 583 O14Th7.q0.m1-930 8.28 eV (C1)	 584 O14Th7.q0.m1-110 8.24 eV (C1)	 585 O14Th7.q0.m1-217 8.26 eV (C1)	 586 O14Th7.q0.m1-353 8.31 eV (C1)	 587 O14Th7.q0.m1-429 8.28 eV (C1)	 588 O14Th7.q0.m1-206 8.30 eV (C1)
 589 O14Th7.q0.m1-1066 8.32 eV (C1)	 590 O14Th7.q0.m1-653 8.33 eV (C1)	 591 O14Th7.q0.m1-192 8.37 eV (C1)	 592 O14Th7.q0.m1-220 8.31 eV (C1)	 593 O14Th7.q0.m1-1149 8.34 eV (C1)	 594 O14Th7.q0.m1-499 8.36 eV (C1)
 595 O14Th7.q0.m1-709 8.40 eV (C1)	 596 O14Th7.q0.m1-168 8.39 eV (C1)	 597 O14Th7.q0.m1-994 8.37 eV (C1)	 598 O14Th7.q0.m1-640 8.40 eV (C1)	 599 O14Th7.q0.m1-589 8.46 eV (C1)	 600 O14Th7.q0.m1-198 8.44 eV (C1)
 601 O14Th7.q0.m1-408 8.45 eV (C1)	 602 O14Th7.q0.m1-102 8.47 eV (C1)	 603 O14Th7.q0.m1-352 8.49 eV (C1)	 604 O14Th7.q0.m1-348 8.46 eV (C1)	 605 O14Th7.q0.m1-721 8.51 eV (C1)	 606 O14Th7.q0.m1-1105 8.49 eV (C1)
 607 O14Th7.q0.m1-430 8.54 eV (C1)	 608 O14Th7.q0.m1-186 8.54 eV (C1)	 609 O14Th7.q0.m1-620 8.59 eV (C1)	 610 O14Th7.q0.m1-203 8.56 eV (C1)	 611 O14Th7.q0.m1-438 8.57 eV (C1)	 612 O14Th7.q0.m1-386 8.61 eV (C1)

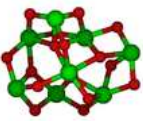
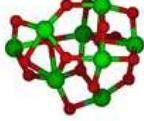
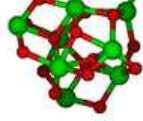
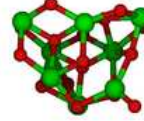
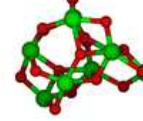
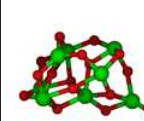
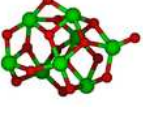
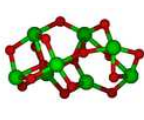
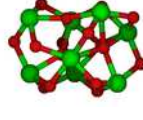


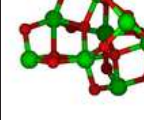
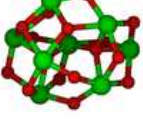
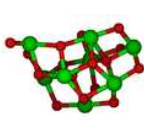
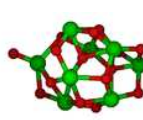
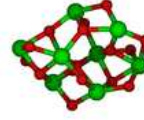

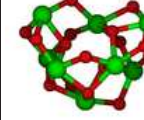
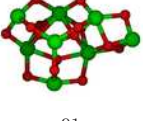
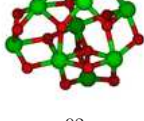
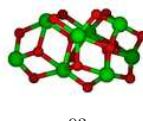
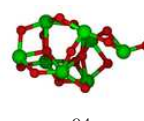
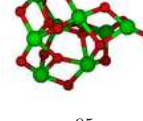
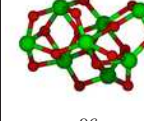
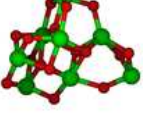
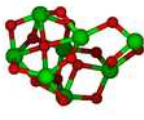
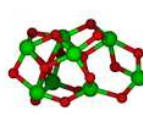

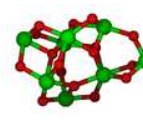
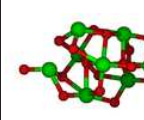
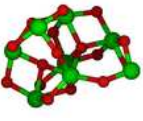
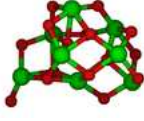
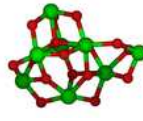
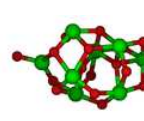
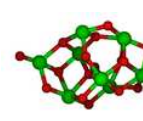

$\text{Th}_7\text{O}_{14}$ (Continued from previous page)					
 613 O14Th7.q0.m1-76 8.65 eV (C1)	 614 O14Th7.q0.m1-161 8.65 eV (C1)	 615 O14Th7.q0.m1-791 8.65 eV (C1)	 616 O14Th7.q0.m1-1113 8.68 eV (C1)	 617 O14Th7.q0.m1-736 8.69 eV (C1)	 618 O14Th7.q0.m1-121 8.69 eV (C1)
 619 O14Th7.q0.m1-1080 8.72 eV (C1)	 620 O14Th7.q0.m1-313 8.76 eV (C1)	 621 O14Th7.q0.m1-711 8.75 eV (C1)	 622 O14Th7.q0.m1-717 8.75 eV (C1)	 623 O14Th7.q0.m1-200 8.77 eV (C1)	 624 O14Th7.q0.m1-1038 8.79 eV (C1)
 625 O14Th7.q0.m1-1048 8.81 eV (C1)	 626 O14Th7.q0.m1-303 8.84 eV (C1)	 627 O14Th7.q0.m1-1003 8.92 eV (C1)	 628 O14Th7.q0.m1-908 8.92 eV (C1)	 629 O14Th7.q0.m1-1121 8.89 eV (C1)	 630 O14Th7.q0.m1-493 8.97 eV (C1)
 631 O14Th7.q0.m1-1002 8.93 eV (C1)	 632 O14Th7.q0.m1-433 8.94 eV (C1)	 633 O14Th7.q0.m1-205 8.95 eV (C1)	 634 O14Th7.q0.m1-1006 8.97 eV (C1)	 635 O14Th7.q0.m1-720 8.96 eV (C1)	 636 O14Th7.q0.m1-621 8.99 eV (C1)
 637 O14Th7.q0.m1-567 9.00 eV (C1)	 638 O14Th7.q0.m1-630 9.04 eV (C1)	 639 O14Th7.q0.m1-764 9.04 eV (C1)	 640 O14Th7.q0.m1-172 9.09 eV (C1)	 641 O14Th7.q0.m1-223 9.07 eV (C1)	 642 O14Th7.q0.m1-957 9.05 eV (C1)
 643 O14Th7.q0.m1-169 9.09 eV (C1)	 644 O14Th7.q0.m1-945 9.10 eV (C1)	 645 O14Th7.q0.m1-795 9.10 eV (C1)	 646 O14Th7.q0.m1-928 9.15 eV (C1)	 647 O14Th7.q0.m1-519 9.15 eV (C1)	 648 O14Th7.q0.m1-204 9.15 eV (C1)

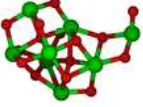
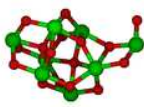
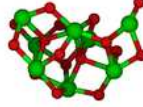
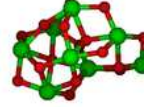
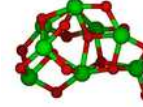
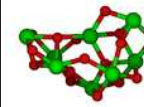

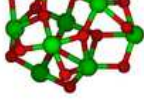
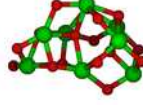
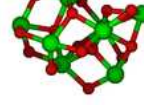
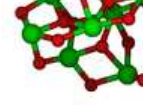
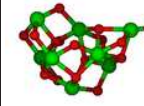
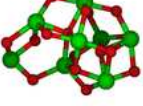
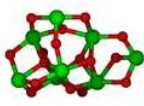
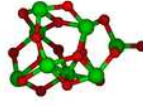
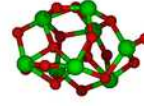
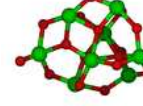
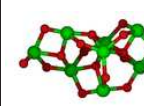
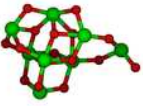
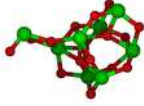
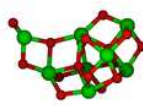
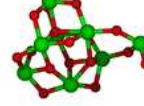
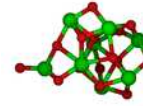
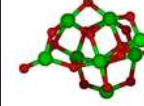
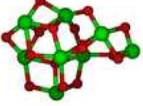
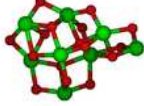
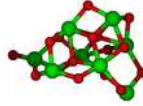
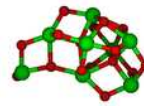
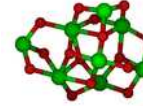
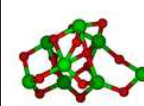
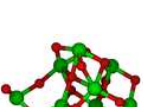
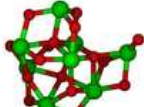
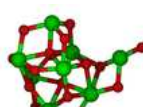
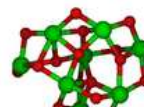
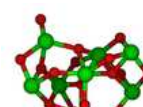
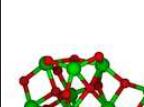
Th <sub>7</sub> O <sub>14</sub> (Continued from previous page)					
 649 O14Th7.q0.m1-959 9.19 eV (C1)	 650 O14Th7.q0.m1-305 9.21 eV (C1)	 651 O14Th7.q0.m1-488 9.24 eV (C1)	 652 O14Th7.q0.m1-1027 9.30 eV (C1)	 653 O14Th7.q0.m1-805 9.27 eV (C1)	 654 O14Th7.q0.m1-609 9.37 eV (C1)
 655 O14Th7.q0.m1-891 9.35 eV (C1)	 656 O14Th7.q0.m1-59 9.33 eV (C1)	 657 O14Th7.q0.m1-939 9.35 eV (C1)	 658 O14Th7.q0.m1-393 9.37 eV (C1)	 659 O14Th7.q0.m1-1014 9.41 eV (C1)	 660 O14Th7.q0.m1-244 9.40 eV (C1)
 661 O14Th7.q0.m1-494 9.43 eV (C1)	 662 O14Th7.q0.m1-1079 9.48 eV (C1)	 663 O14Th7.q0.m1-199 9.52 eV (C1)	 664 O14Th7.q0.m1-1125 9.57 eV (C1)	 665 O14Th7.q0.m1-88 9.59 eV (C1)	 666 O14Th7.q0.m1-312 9.59 eV (C1)
 667 O14Th7.q0.m1-308 9.60 eV (C1)	 668 O14Th7.q0.m1-287 9.62 eV (C1)	 669 O14Th7.q0.m1-226 9.66 eV (C1)	 670 O14Th7.q0.m1-357 9.65 eV (C1)	 671 O14Th7.q0.m1-1030 9.67 eV (C1)	 672 O14Th7.q0.m1-1068 9.67 eV (C1)
 673 O14Th7.q0.m1-306 9.64 eV (C1)	 674 O14Th7.q0.m1-331 9.68 eV (C1)	 675 O14Th7.q0.m1-1032 9.69 eV (C1)	 676 O14Th7.q0.m1-201 9.68 eV (C1)	 677 O14Th7.q0.m1-385 9.68 eV (C1)	 678 O14Th7.q0.m1-407 9.69 eV (C1)
 679 O14Th7.q0.m1-629 9.71 eV (C1)	 680 O14Th7.q0.m1-549 9.74 eV (C1)	 681 O14Th7.q0.m1-292 9.75 eV (C1)	 682 O14Th7.q0.m1-940 9.71 eV (C1)	 683 O14Th7.q0.m1-1011 9.73 eV (C1)	 684 O14Th7.q0.m1-283 9.79 eV (C1)


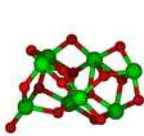
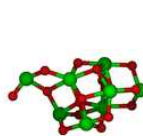
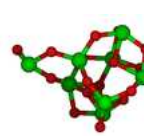
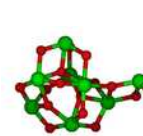
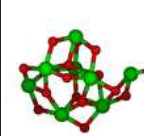


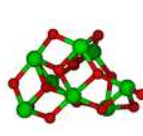
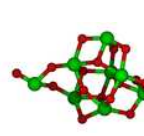
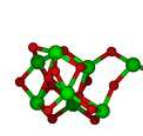
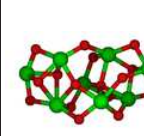
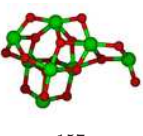

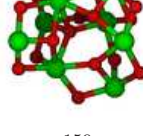
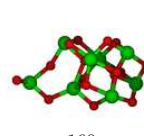
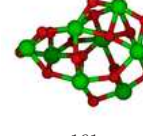
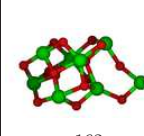

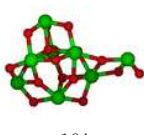
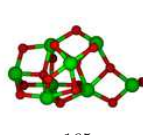
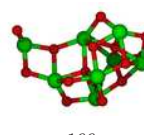
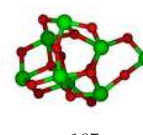
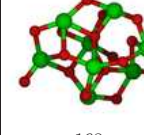
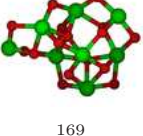
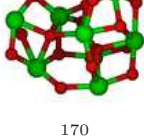
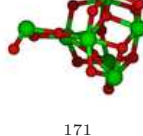
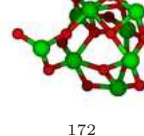
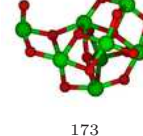
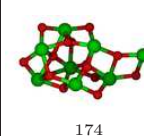
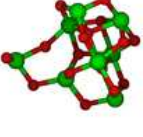
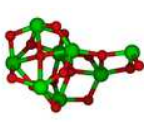
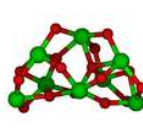
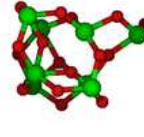
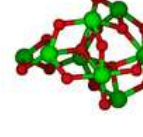
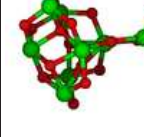
$\text{Th}_7\text{O}_{14}$ (Continued from previous page)					
 685 O14Th7.q0.m1-403 9.78 eV (C1)	 686 O14Th7.q0.m1-1119 9.83 eV (C1)	 687 O14Th7.q0.m1-239 9.94 eV (C1)	 688 O14Th7.q0.m1-20 9.95 eV (C1)	 689 O14Th7.q0.m1-1148 10.00 eV (C1)	 690 O14Th7.q0.m1-1010 10.06 eV (C1)
 691 O14Th7.q0.m1-86 10.19 eV (C1)	 692 O14Th7.q0.m1-455 10.21 eV (C1)	 693 O14Th7.q0.m1-794 10.32 eV (C1)	 694 O14Th7.q0.m1-477 10.42 eV (C1)	 695 O14Th7.q0.m1-365 10.59 eV (C1)	 696 O14Th7.q0.m1-133 10.82 eV (C1)
 697 O14Th7.q0.m1-404 10.94 eV (C1)	 698 O14Th7.q0.m1-108 11.01 eV (C1)	 699 O14Th7.q0.m1-495 11.09 eV (C1)	 700 O14Th7.q0.m1-87 11.09 eV (C1)	 701 O14Th7.q0.m1-659 11.34 eV (C1)	

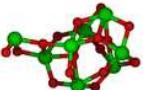
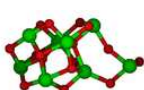
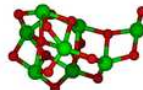
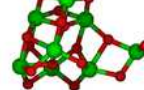
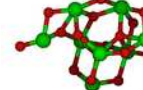
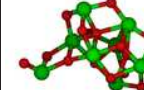
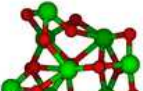
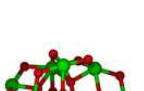
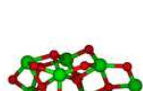
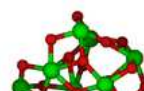
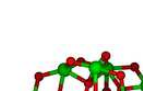
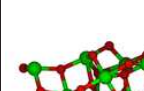
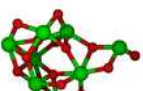
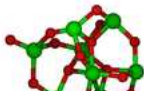
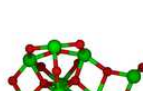
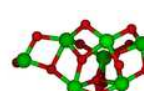
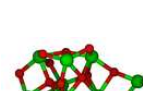
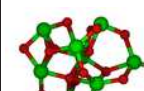
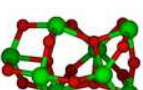
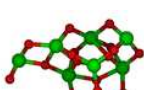
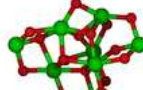
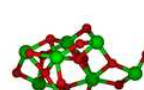
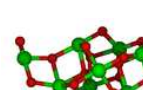
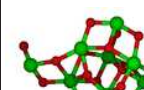
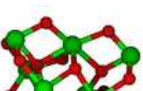
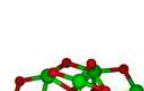
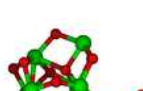
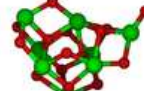
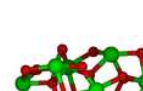
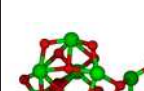
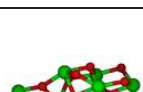
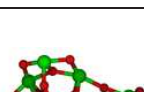
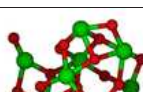
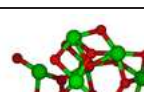
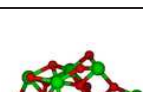
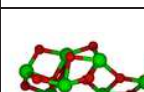
Th <sub>8</sub> O <sub>16</sub>					
					
1 O16Th8.q0.m1-174 0.00 eV (CS)	2 O16Th8.q0.m1-18 0.48 eV (C1)	3 O16Th8.q0.m1-830 0.50 eV (C1)	4 O16Th8.q0.m1-691 0.52 eV (C1)	5 O16Th8.q0.m1-282 0.55 eV (C1)	6 O16Th8.q0.m1-396 0.53 eV (C1)
					
7 O16Th8.q0.m1-77 0.54 eV (C1)	8 O16Th8.q0.m1-144 0.55 eV (C1)	9 O16Th8.q0.m1-193 0.56 eV (C1)	10 O16Th8.q0.m1-217 0.60 eV (C1)	11 O16Th8.q0.m1-738 0.77 eV (C1)	12 O16Th8.q0.m1-469 0.77 eV (C1)
					
13 O16Th8.q0.m1-209 0.77 eV (C1)	14 O16Th8.q0.m1-753 0.81 eV (C1)	15 O16Th8.q0.m1-727 0.83 eV (C1)	16 O16Th8.q0.m1-380 0.86 eV (C1)	17 O16Th8.q0.m1-514 0.87 eV (C1)	18 O16Th8.q0.m1-823 0.88 eV (C1)
					
19 O16Th8.q0.m1-515 0.89 eV (C1)	20 O16Th8.q0.m1-100 0.90 eV (C1)	21 O16Th8.q0.m1-732 0.99 eV (C1)	22 O16Th8.q0.m1-189 1.01 eV (C1)	23 O16Th8.q0.m1-185 1.03 eV (C1)	24 O16Th8.q0.m1-696 1.04 eV (C1)
					
25 O16Th8.q0.m1-252 1.07 eV (C1)	26 O16Th8.q0.m1-74 1.08 eV (C1)	27 O16Th8.q0.m1-6 1.11 eV (C1)	28 O16Th8.q0.m1-851 1.10 eV (C1)	29 O16Th8.q0.m1-526 1.12 eV (C1)	30 O16Th8.q0.m1-202 1.14 eV (C1)
					
31 O16Th8.q0.m1-468 1.19 eV (C1)	32 O16Th8.q0.m1-12 1.19 eV (C1)	33 O16Th8.q0.m1-120 1.24 eV (C1)	34 O16Th8.q0.m1-424 1.24 eV (C1)	35 O16Th8.q0.m1-633 1.27 eV (C1)	36 O16Th8.q0.m1-556 1.26 eV (C1)

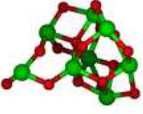
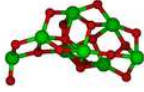
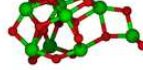
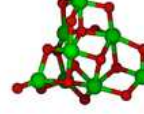
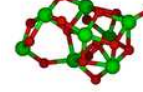
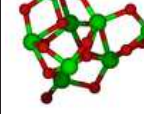
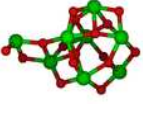
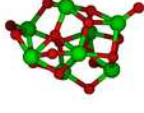
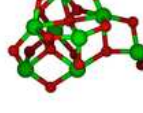
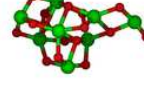
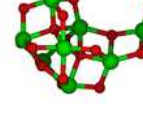
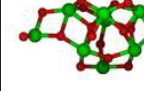
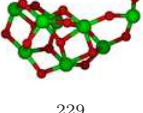
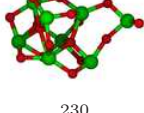
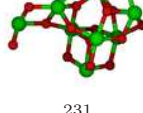

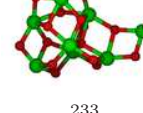
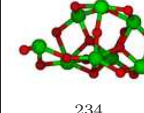
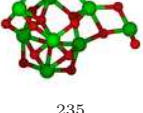
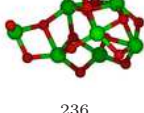
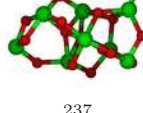

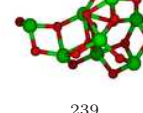
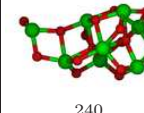
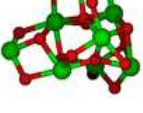
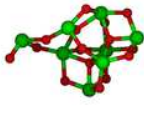
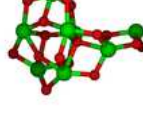
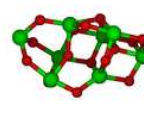
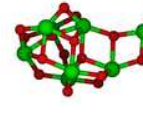

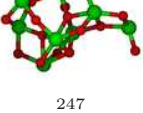
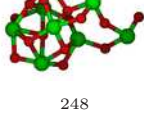
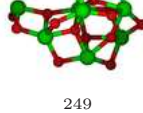


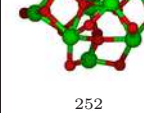
$\text{Th}_8\text{O}_{16}$ (Continued from previous page)					
 37 O16Th8.q0.m1-701 1.26 eV (C1)	 38 O16Th8.q0.m1-143 1.26 eV (C1)	 39 O16Th8.q0.m1-220 1.28 eV (C1)	 40 O16Th8.q0.m1-177 1.29 eV (C1)	 41 O16Th8.q0.m1-151 1.28 eV (C1)	 42 O16Th8.q0.m1-134 1.28 eV (C1)
 43 O16Th8.q0.m1-270 1.28 eV (C1)	 44 O16Th8.q0.m1-126 1.31 eV (C1)	 45 O16Th8.q0.m1-35 1.30 eV (C1)	 46 O16Th8.q0.m1-171 1.33 eV (C1)	 47 O16Th8.q0.m1-386 1.39 eV (C1)	 48 O16Th8.q0.m1-688 1.39 eV (C1)
 49 O16Th8.q0.m1-376 1.38 eV (C1)	 50 O16Th8.q0.m1-142 1.39 eV (C1)	 51 O16Th8.q0.m1-700 1.40 eV (C1)	 52 O16Th8.q0.m1-39 1.41 eV (C1)	 53 O16Th8.q0.m1-38 1.41 eV (C1)	 54 O16Th8.q0.m1-353 1.41 eV (C1)
 55 O16Th8.q0.m1-374 1.42 eV (C1)	 56 O16Th8.q0.m1-24 1.46 eV (C1)	 57 O16Th8.q0.m1-581 1.45 eV (C1)	 58 O16Th8.q0.m1-292 1.48 eV (C1)	 59 O16Th8.q0.m1-355 1.48 eV (C1)	 60 O16Th8.q0.m1-114 1.48 eV (C1)
 61 O16Th8.q0.m1-743 1.51 eV (C1)	 62 O16Th8.q0.m1-212 1.50 eV (C1)	 63 O16Th8.q0.m1-560 1.53 eV (C1)	 64 O16Th8.q0.m1-548 1.55 eV (C1)	 65 O16Th8.q0.m1-782 1.55 eV (C1)	 66 O16Th8.q0.m1-641 1.58 eV (C1)
 67 O16Th8.q0.m1-269 1.60 eV (C1)	 68 O16Th8.q0.m1-834 1.60 eV (C1)	 69 O16Th8.q0.m1-237 1.62 eV (C1)	 70 O16Th8.q0.m1-31 1.64 eV (C1)	 71 O16Th8.q0.m1-838 1.62 eV (C1)	 72 O16Th8.q0.m1-281 1.62 eV (C1)

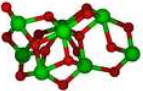
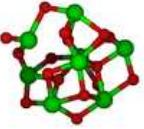
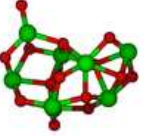
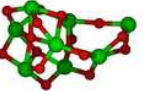

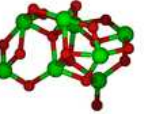
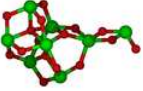
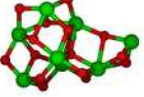
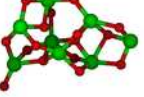
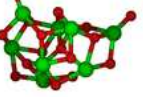
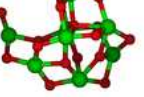
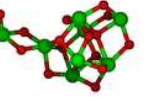
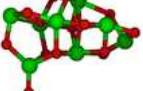
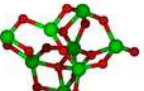
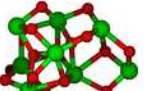
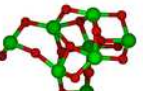
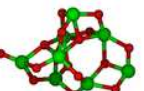
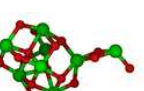
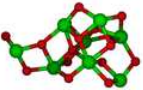
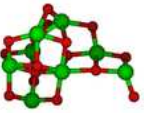
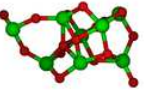
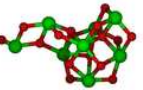
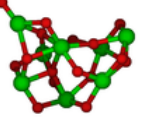
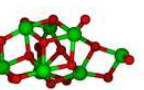
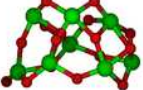
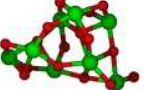
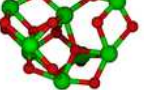
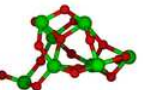
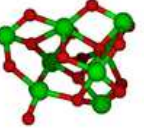

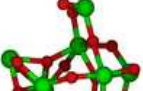
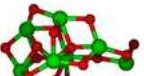
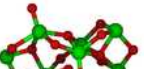
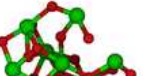
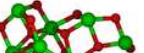
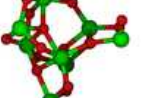
Th <sub>8</sub> O <sub>16</sub> (Continued from previous page)					
 73 O16Th8.q0.m1-377 1.63 eV (C1)	 74 O16Th8.q0.m1-245 1.63 eV (C1)	 75 O16Th8.q0.m1-378 1.62 eV (C1)	 76 O16Th8.q0.m1-287 1.65 eV (C1)	 77 O16Th8.q0.m1-366 1.66 eV (C1)	 78 O16Th8.q0.m1-812 1.63 eV (C1)
 79 O16Th8.q0.m1-453 1.65 eV (C1)	 80 O16Th8.q0.m1-429 1.70 eV (C1)	 81 O16Th8.q0.m1-238 1.70 eV (C1)	 82 O16Th8.q0.m1-803 1.71 eV (C1)	 83 O16Th8.q0.m1-272 1.71 eV (C1)	 84 O16Th8.q0.m1-87 1.72 eV (C1)
 85 O16Th8.q0.m1-628 1.73 eV (C1)	 86 O16Th8.q0.m1-427 1.74 eV (C1)	 87 O16Th8.q0.m1-7 1.76 eV (C1)	 88 O16Th8.q0.m1-655 1.79 eV (C1)	 89 O16Th8.q0.m1-14 1.79 eV (C1)	 90 O16Th8.q0.m1-199 1.81 eV (C1)
 91 O16Th8.q0.m1-653 1.80 eV (C1)	 92 O16Th8.q0.m1-271 1.80 eV (C1)	 93 O16Th8.q0.m1-89 1.82 eV (C1)	 94 O16Th8.q0.m1-707 1.81 eV (C1)	 95 O16Th8.q0.m1-153 1.79 eV (C1)	 96 O16Th8.q0.m1-56 1.85 eV (C1)
 97 O16Th8.q0.m1-288 1.86 eV (C1)	 98 O16Th8.q0.m1-832 1.86 eV (C1)	 99 O16Th8.q0.m1-367 1.85 eV (C1)	 100 O16Th8.q0.m1-1 1.85 eV (C1)	 101 O16Th8.q0.m1-459 1.87 eV (C1)	 102 O16Th8.q0.m1-728 1.87 eV (C1)
 103 O16Th8.q0.m1-157 1.89 eV (C1)	 104 O16Th8.q0.m1-690 1.87 eV (C1)	 105 O16Th8.q0.m1-259 1.89 eV (C1)	 106 O16Th8.q0.m1-351 1.89 eV (C1)	 107 O16Th8.q0.m1-129 1.91 eV (C1)	 108 O16Th8.q0.m1-42 1.90 eV (C1)

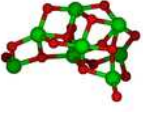
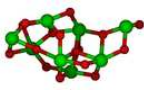
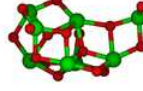
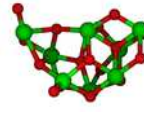
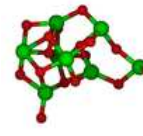
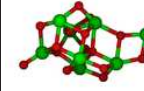
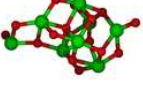
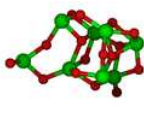
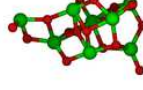
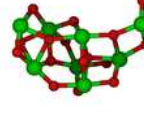
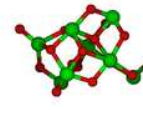

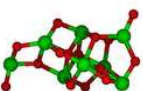
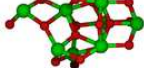

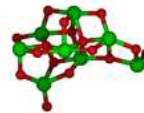
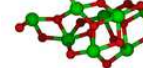
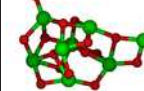
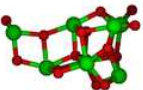
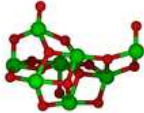
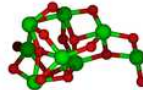
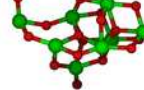

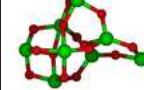
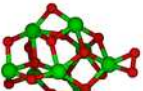
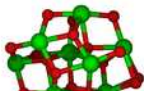
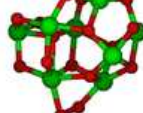
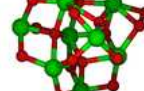
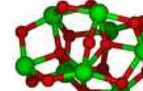
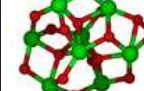
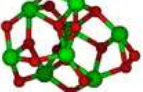
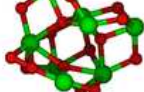
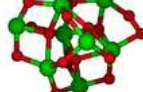
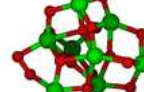
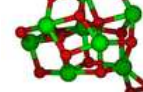
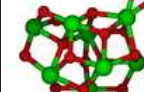
$\text{Th}_8\text{O}_{16}$ (Continued from previous page)					
 109 O16Th8.q0.m1-717 1.91 eV (C1)	 110 O16Th8.q0.m1-125 1.92 eV (C1)	 111 O16Th8.q0.m1-300 1.92 eV (C1)	 112 O16Th8.q0.m1-817 1.94 eV (C1)	 113 O16Th8.q0.m1-415 1.93 eV (C1)	 114 O16Th8.q0.m1-467 1.96 eV (C1)
 115 O16Th8.q0.m1-774 1.94 eV (C1)	 116 O16Th8.q0.m1-423 1.95 eV (C1)	 117 O16Th8.q0.m1-516 1.95 eV (C1)	 118 O16Th8.q0.m1-491 1.95 eV (C1)	 119 O16Th8.q0.m1-195 1.96 eV (C1)	 120 O16Th8.q0.m1-219 1.95 eV (C1)
 121 O16Th8.q0.m1-504 1.98 eV (C1)	 122 O16Th8.q0.m1-585 1.97 eV (C1)	 123 O16Th8.q0.m1-670 1.97 eV (C1)	 124 O16Th8.q0.m1-159 1.98 eV (C1)	 125 O16Th8.q0.m1-403 1.96 eV (C1)	 126 O16Th8.q0.m1-278 1.97 eV (C1)
 127 O16Th8.q0.m1-354 1.98 eV (C1)	 128 O16Th8.q0.m1-772 2.00 eV (C1)	 129 O16Th8.q0.m1-197 2.00 eV (C1)	 130 O16Th8.q0.m1-553 2.00 eV (C1)	 131 O16Th8.q0.m1-45 2.02 eV (C1)	 132 O16Th8.q0.m1-135 2.02 eV (C1)
 133 O16Th8.q0.m1-340 2.05 eV (C1)	 134 O16Th8.q0.m1-417 2.05 eV (C1)	 135 O16Th8.q0.m1-594 2.03 eV (C1)	 136 O16Th8.q0.m1-198 2.04 eV (C1)	 137 O16Th8.q0.m1-577 2.05 eV (C1)	 138 O16Th8.q0.m1-535 2.04 eV (C1)
 139 O16Th8.q0.m1-835 2.05 eV (C1)	 140 O16Th8.q0.m1-801 2.04 eV (C1)	 141 O16Th8.q0.m1-709 2.04 eV (C1)	 142 O16Th8.q0.m1-127 2.04 eV (C1)	 143 O16Th8.q0.m1-494 2.06 eV (C1)	 144 O16Th8.q0.m1-737 2.07 eV (C1)

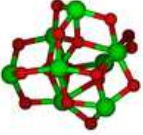
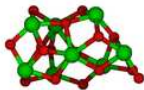
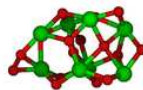

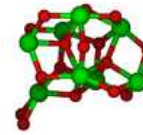
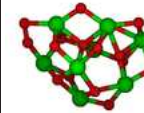
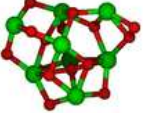
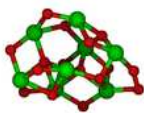
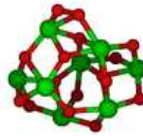
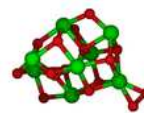
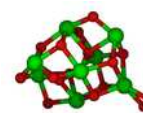
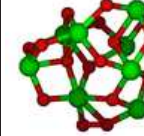
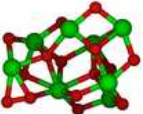

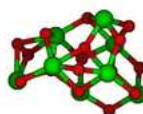
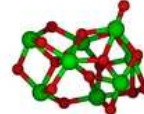
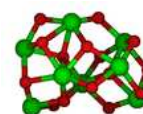
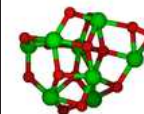
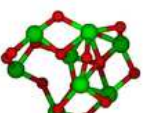
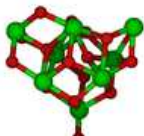
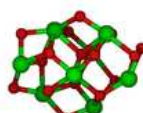
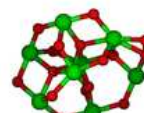
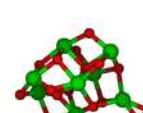
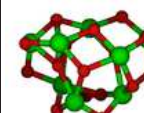
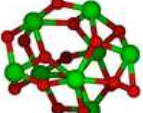
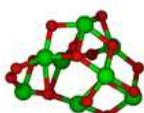
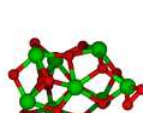
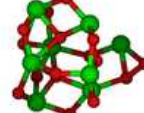
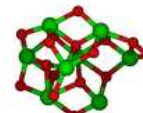
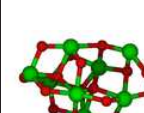
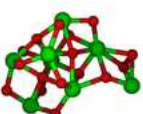
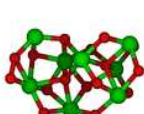

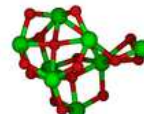

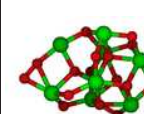
Th <sub>8</sub> O <sub>16</sub> (Continued from previous page)					
					
145 O16Th8.q0.m1-175 2.08 eV (C1)	146 O16Th8.q0.m1-564 2.08 eV (C1)	147 O16Th8.q0.m1-121 2.08 eV (C1)	148 O16Th8.q0.m1-759 2.08 eV (C1)	149 O16Th8.q0.m1-320 2.09 eV (C1)	150 O16Th8.q0.m1-133 2.09 eV (C1)
					
151 O16Th8.q0.m1-571 2.07 eV (C1)	152 O16Th8.q0.m1-730 2.11 eV (C1)	153 O16Th8.q0.m1-637 2.12 eV (C1)	154 O16Th8.q0.m1-356 2.11 eV (C1)	155 O16Th8.q0.m1-767 2.12 eV (C1)	156 O16Th8.q0.m1-534 2.14 eV (C1)
					
157 O16Th8.q0.m1-275 2.13 eV (C1)	158 O16Th8.q0.m1-226 2.16 eV (C1)	159 O16Th8.q0.m1-613 2.16 eV (C1)	160 O16Th8.q0.m1-227 2.15 eV (C1)	161 O16Th8.q0.m1-286 2.16 eV (C1)	162 O16Th8.q0.m1-592 2.15 eV (C1)
					
163 O16Th8.q0.m1-152 2.15 eV (C1)	164 O16Th8.q0.m1-451 2.15 eV (C1)	165 O16Th8.q0.m1-11 2.16 eV (C1)	166 O16Th8.q0.m1-714 2.17 eV (C1)	167 O16Th8.q0.m1-110 2.16 eV (C1)	168 O16Th8.q0.m1-626 2.15 eV (C1)
					
169 O16Th8.q0.m1-357 2.18 eV (C1)	170 O16Th8.q0.m1-76 2.19 eV (C1)	171 O16Th8.q0.m1-398 2.18 eV (C1)	172 O16Th8.q0.m1-172 2.18 eV (C1)	173 O16Th8.q0.m1-485 2.17 eV (C1)	174 O16Th8.q0.m1-699 2.18 eV (C1)
					
175 O16Th8.q0.m1-555 2.19 eV (C1)	176 O16Th8.q0.m1-741 2.20 eV (C1)	177 O16Th8.q0.m1-455 2.22 eV (C1)	178 O16Th8.q0.m1-317 2.20 eV (C1)	179 O16Th8.q0.m1-242 2.22 eV (C1)	180 O16Th8.q0.m1-712 2.21 eV (C1)

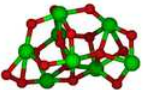
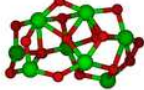
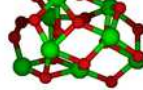
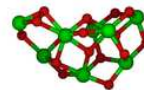
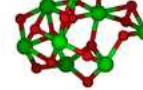
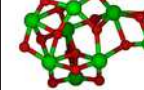
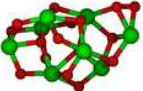
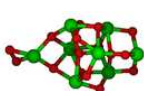
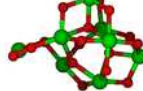
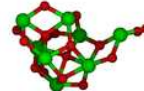
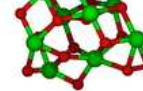
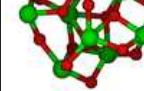
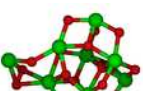
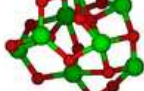
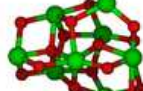
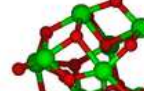
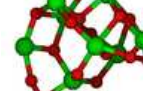
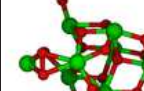
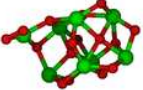
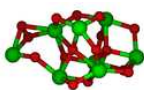
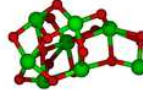
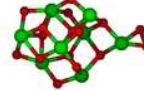
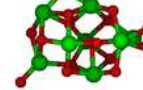
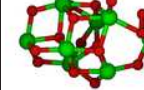
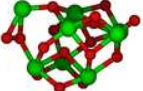
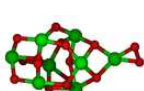
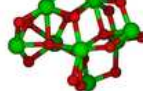
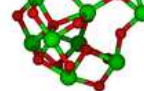
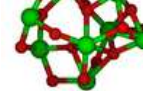
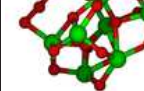
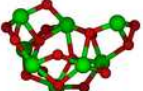
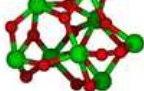
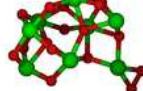
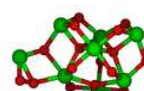
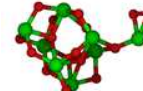
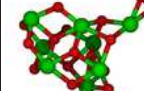
Th <sub>8</sub> O <sub>16</sub> (Continued from previous page)					
 181 O16Th8.q0.m1-719 2.21 eV (C1)	 182 O16Th8.q0.m1-431 2.22 eV (C1)	 183 O16Th8.q0.m1-768 2.22 eV (C1)	 184 O16Th8.q0.m1-710 2.23 eV (C1)	 185 O16Th8.q0.m1-86 2.22 eV (C1)	 186 O16Th8.q0.m1-756 2.23 eV (C1)
 187 O16Th8.q0.m1-302 2.26 eV (C1)	 188 O16Th8.q0.m1-123 2.23 eV (C1)	 189 O16Th8.q0.m1-698 2.23 eV (C1)	 190 O16Th8.q0.m1-785 2.25 eV (C1)	 191 O16Th8.q0.m1-310 2.24 eV (C1)	 192 O16Th8.q0.m1-230 2.24 eV (C1)
 193 O16Th8.q0.m1-827 2.25 eV (C1)	 194 O16Th8.q0.m1-530 2.23 eV (C1)	 195 O16Th8.q0.m1-365 2.24 eV (C1)	 196 O16Th8.q0.m1-150 2.24 eV (C1)	 197 O16Th8.q0.m1-845 2.25 eV (C1)	 198 O16Th8.q0.m1-2 2.25 eV (C1)
 199 O16Th8.q0.m1-456 2.27 eV (CS)	 200 O16Th8.q0.m1-184 2.26 eV (C1)	 201 O16Th8.q0.m1-179 2.30 eV (C1)	 202 O16Th8.q0.m1-729 2.28 eV (C1)	 203 O16Th8.q0.m1-191 2.28 eV (C1)	 204 O16Th8.q0.m1-136 2.28 eV (C1)
 205 O16Th8.q0.m1-23 2.30 eV (C1)	 206 O16Th8.q0.m1-128 2.29 eV (C1)	 207 O16Th8.q0.m1-783 2.30 eV (C1)	 208 O16Th8.q0.m1-296 2.30 eV (C1)	 209 O16Th8.q0.m1-164 2.32 eV (C1)	 210 O16Th8.q0.m1-452 2.30 eV (C1)
 211 O16Th8.q0.m1-842 2.31 eV (C1)	 212 O16Th8.q0.m1-418 2.32 eV (C1)	 213 O16Th8.q0.m1-603 2.33 eV (C1)	 214 O16Th8.q0.m1-201 2.34 eV (C1)	 215 O16Th8.q0.m1-694 2.35 eV (C1)	 216 O16Th8.q0.m1-401 2.35 eV (C1)


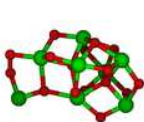
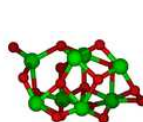

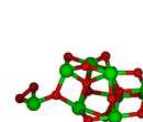
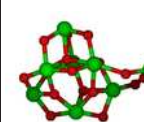
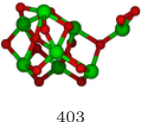
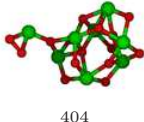
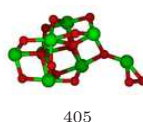
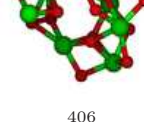
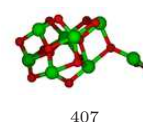
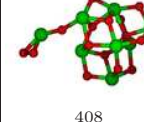
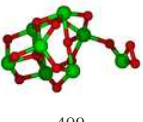
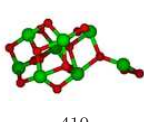
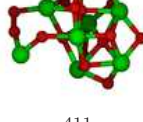
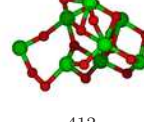
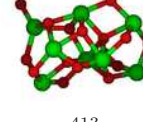
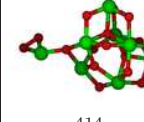
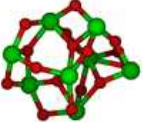
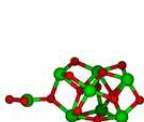
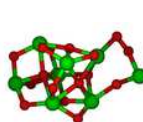
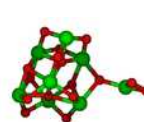
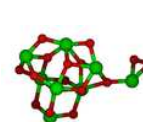
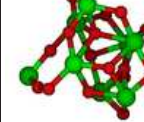
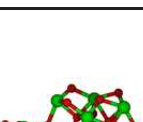
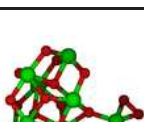
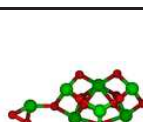
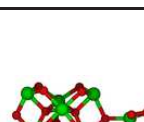
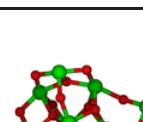
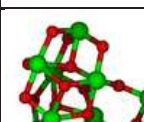
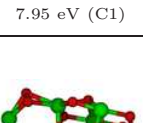
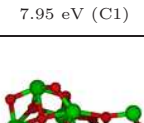
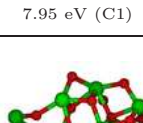
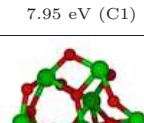
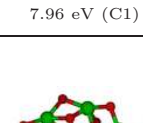
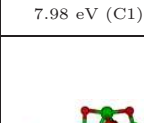
Th <sub>8</sub> O <sub>16</sub> (Continued from previous page)					
 217 O16Th8.q0.m1-454 2.35 eV (C1)	 218 O16Th8.q0.m1-156 2.36 eV (C1)	 219 O16Th8.q0.m1-124 2.35 eV (C1)	 220 O16Th8.q0.m1-81 2.38 eV (C1)	 221 O16Th8.q0.m1-20 2.38 eV (C1)	 222 O16Th8.q0.m1-105 2.39 eV (C1)
 223 O16Th8.q0.m1-441 2.38 eV (C1)	 224 O16Th8.q0.m1-106 2.39 eV (C1)	 225 O16Th8.q0.m1-391 2.38 eV (C1)	 226 O16Th8.q0.m1-203 2.38 eV (C1)	 227 O16Th8.q0.m1-673 2.38 eV (C1)	 228 O16Th8.q0.m1-113 2.39 eV (C1)
 229 O16Th8.q0.m1-580 2.39 eV (C1)	 230 O16Th8.q0.m1-359 2.39 eV (C1)	 231 O16Th8.q0.m1-192 2.40 eV (C1)	 232 O16Th8.q0.m1-520 2.40 eV (C1)	 233 O16Th8.q0.m1-407 2.41 eV (C1)	 234 O16Th8.q0.m1-187 2.40 eV (C1)
 235 O16Th8.q0.m1-364 2.41 eV (C1)	 236 O16Th8.q0.m1-34 2.42 eV (C1)	 237 O16Th8.q0.m1-395 2.43 eV (C1)	 238 O16Th8.q0.m1-224 2.44 eV (C1)	 239 O16Th8.q0.m1-305 2.46 eV (C1)	 240 O16Th8.q0.m1-542 2.44 eV (C1)
 241 O16Th8.q0.m1-256 2.47 eV (C1)	 242 O16Th8.q0.m1-27 2.45 eV (C1)	 243 O16Th8.q0.m1-338 2.46 eV (C1)	 244 O16Th8.q0.m1-570 2.46 eV (C1)	 245 O16Th8.q0.m1-506 2.45 eV (C1)	 246 O16Th8.q0.m1-547 2.47 eV (C1)
 247 O16Th8.q0.m1-62 2.50 eV (C1)	 248 O16Th8.q0.m1-725 2.50 eV (C1)	 249 O16Th8.q0.m1-614 2.55 eV (C1)	 250 O16Th8.q0.m1-283 2.56 eV (C1)	 251 O16Th8.q0.m1-658 2.57 eV (C1)	 252 O16Th8.q0.m1-26 2.60 eV (C1)

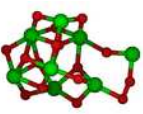
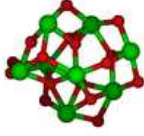
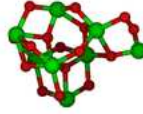
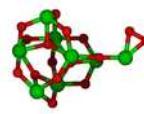

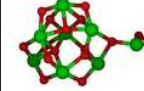
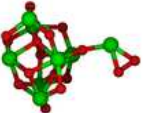
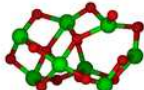
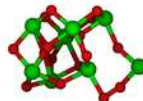
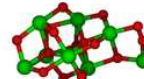
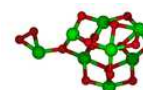
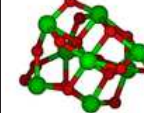
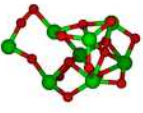

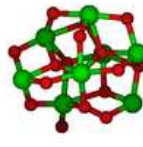
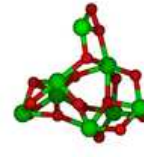
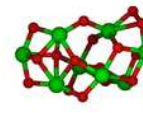
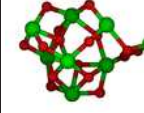

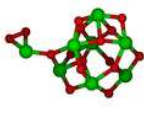
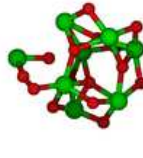

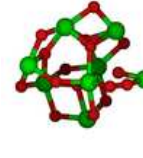
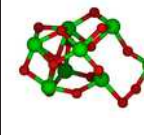
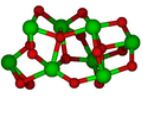



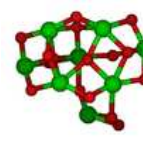
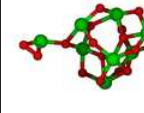
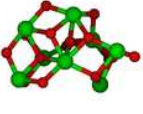


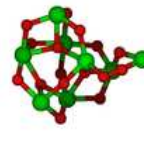

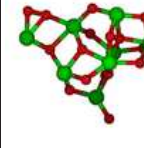
Th <sub>8</sub> O <sub>16</sub> (Continued from previous page)					
 253 O16Th8.q0.m1-561 2.61 eV (C1)	 254 O16Th8.q0.m1-84 2.63 eV (C1)	 255 O16Th8.q0.m1-140 2.65 eV (C1)	 256 O16Th8.q0.m1-802 2.66 eV (C1)	 257 O16Th8.q0.m1-411 2.68 eV (C1)	 258 O16Th8.q0.m1-211 2.71 eV (C1)
 259 O16Th8.q0.m1-167 2.69 eV (C1)	 260 O16Th8.q0.m1-442 2.74 eV (C1)	 261 O16Th8.q0.m1-168 2.71 eV (C1)	 262 O16Th8.q0.m1-249 2.75 eV (C1)	 263 O16Th8.q0.m1-549 2.78 eV (C1)	 264 O16Th8.q0.m1-486 2.83 eV (C1)
 265 O16Th8.q0.m1-196 2.85 eV (C1)	 266 O16Th8.q0.m1-595 2.83 eV (C1)	 267 O16Th8.q0.m1-247 2.88 eV (C1)	 268 O16Th8.q0.m1-421 2.88 eV (C1)	 269 O16Th8.q0.m1-464 2.88 eV (C1)	 270 O16Th8.q0.m1-47 2.92 eV (C1)
 271 O16Th8.q0.m1-234 2.91 eV (C1)	 272 O16Th8.q0.m1-635 2.93 eV (C1)	 273 O16Th8.q0.m1-70 2.90 eV (C1)	 274 O16Th8.q0.m1-593 2.95 eV (C1)	 275 O16Th8.q0.m1-679 2.92 eV (C1)	 276 O16Th8.q0.m1-98 2.96 eV (C1)
 277 O16Th8.q0.m1-465 2.95 eV (C1)	 278 O16Th8.q0.m1-362 2.97 eV (C1)	 279 O16Th8.q0.m1-563 3.00 eV (C1)	 280 O16Th8.q0.m1-236 3.00 eV (C1)	 281 O16Th8.q0.m1-22 3.02 eV (C1)	 282 O16Th8.q0.m1-25 2.98 eV (C1)
 283 O16Th8.q0.m1-312 3.03 eV (C1)	 284 O16Th8.q0.m1-601 3.04 eV (C1)	 285 O16Th8.q0.m1-182 3.04 eV (C1)	 286 O16Th8.q0.m1-569 3.07 eV (C1)	 287 O16Th8.q0.m1-54 3.09 eV (C1)	 288 O16Th8.q0.m1-511 3.07 eV (C1)

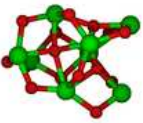
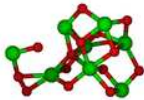
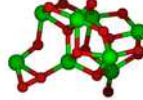

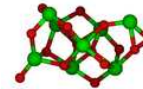
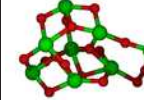
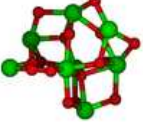
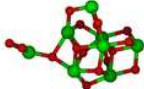
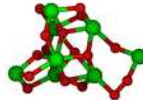
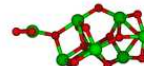
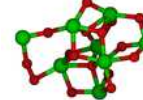
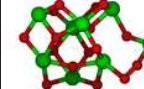
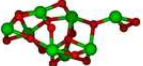

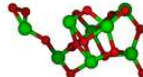
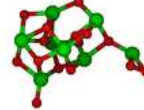
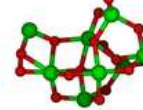

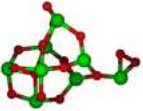
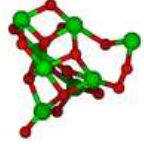
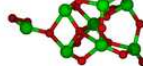

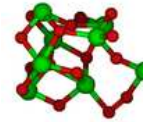

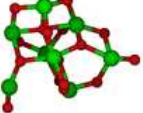
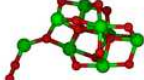
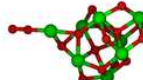
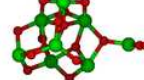
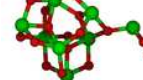
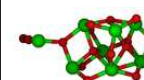
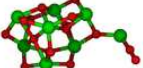
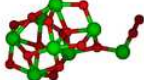

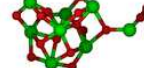
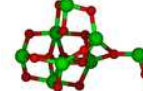

$\text{Th}_8\text{O}_{16}$ (Continued from previous page)					
 289 O16Th8.q0.m1-155 3.10 eV (C1)	 290 O16Th8.q0.m1-248 3.10 eV (C1)	 291 O16Th8.q0.m1-163 3.11 eV (C1)	 292 O16Th8.q0.m1-210 3.14 eV (C1)	 293 O16Th8.q0.m1-618 3.15 eV (C1)	 294 O16Th8.q0.m1-48 3.16 eV (C1)
 295 O16Th8.q0.m1-111 3.18 eV (C1)	 296 O16Th8.q0.m1-213 3.20 eV (C1)	 297 O16Th8.q0.m1-207 3.21 eV (C1)	 298 O16Th8.q0.m1-495 3.21 eV (C1)	 299 O16Th8.q0.m1-562 3.22 eV (C1)	 300 O16Th8.q0.m1-508 3.19 eV (C1)
 301 O16Th8.q0.m1-332 3.23 eV (C1)	 302 O16Th8.q0.m1-139 3.25 eV (C1)	 303 O16Th8.q0.m1-500 3.25 eV (C1)	 304 O16Th8.q0.m1-323 3.26 eV (C1)	 305 O16Th8.q0.m1-473 3.29 eV (C1)	 306 O16Th8.q0.m1-46 3.30 eV (C1)
 307 O16Th8.q0.m1-487 3.32 eV (C1)	 308 O16Th8.q0.m1-131 3.32 eV (C1)	 309 O16Th8.q0.m1-200 3.33 eV (C1)	 310 O16Th8.q0.m1-291 3.32 eV (C1)	 311 O16Th8.q0.m1-17 3.39 eV (C1)	 312 O16Th8.q0.m1-510 3.36 eV (C1)
 313 O16Th8.q0.m1-93 5.85 eV (C1)	 314 O16Th8.q0.m1-95 5.99 eV (C1)	 315 O16Th8.q0.m1-588 6.10 eV (C1)	 316 O16Th8.q0.m1-438 6.13 eV (C1)	 317 O16Th8.q0.m1-416 6.16 eV (C1)	 318 O16Th8.q0.m1-279 6.27 eV (C1)
 319 O16Th8.q0.m1-280 6.38 eV (C1)	 320 O16Th8.q0.m1-194 6.43 eV (C1)	 321 O16Th8.q0.m1-250 6.43 eV (C1)	 322 O16Th8.q0.m1-529 6.43 eV (C1)	 323 O16Th8.q0.m1-325 6.44 eV (C1)	 324 O16Th8.q0.m1-154 6.45 eV (C1)

Th <sub>8</sub> O <sub>16</sub> (Continued from previous page)					
					
325 O16Th8.q0.m1-71 6.56 eV (C1)	326 O16Th8.q0.m1-740 6.63 eV (C1)	327 O16Th8.q0.m1-848 6.65 eV (C1)	328 O16Th8.q0.m1-382 6.68 eV (C1)	329 O16Th8.q0.m1-328 6.64 eV (C1)	330 O16Th8.q0.m1-392 6.69 eV (C1)
					
331 O16Th8.q0.m1-598 6.73 eV (C1)	332 O16Th8.q0.m1-265 6.76 eV (C1)	333 O16Th8.q0.m1-240 6.79 eV (C1)	334 O16Th8.q0.m1-807 6.77 eV (C1)	335 O16Th8.q0.m1-704 6.79 eV (C1)	336 O16Th8.q0.m1-303 6.86 eV (C1)
					
337 O16Th8.q0.m1-646 6.87 eV (C1)	338 O16Th8.q0.m1-244 6.86 eV (C1)	339 O16Th8.q0.m1-50 6.92 eV (C1)	340 O16Th8.q0.m1-604 6.90 eV (C1)	341 O16Th8.q0.m1-483 6.92 eV (C1)	342 O16Th8.q0.m1-161 6.95 eV (C1)
					
343 O16Th8.q0.m1-225 6.99 eV (C1)	344 O16Th8.q0.m1-559 7.05 eV (C1)	345 O16Th8.q0.m1-13 7.03 eV (C1)	346 O16Th8.q0.m1-389 7.01 eV (C1)	347 O16Th8.q0.m1-744 7.04 eV (C1)	348 O16Th8.q0.m1-692 7.07 eV (C1)
					
349 O16Th8.q0.m1-146 7.11 eV (C1)	350 O16Th8.q0.m1-102 7.12 eV (C1)	351 O16Th8.q0.m1-840 7.14 eV (C1)	352 O16Th8.q0.m1-221 7.18 eV (C1)	353 O16Th8.q0.m1-336 7.19 eV (C1)	354 O16Th8.q0.m1-180 7.17 eV (C1)
					
355 O16Th8.q0.m1-789 7.20 eV (C1)	356 O16Th8.q0.m1-589 7.20 eV (C1)	357 O16Th8.q0.m1-638 7.18 eV (C1)	358 O16Th8.q0.m1-620 7.23 eV (C1)	359 O16Th8.q0.m1-190 7.23 eV (C1)	360 O16Th8.q0.m1-505 7.24 eV (C1)

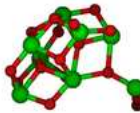
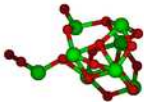

Th <sub>8</sub> O <sub>16</sub> (Continued from previous page)					
					
361 O16Th8.q0.m1-119 7.21 eV (C1)	362 O16Th8.q0.m1-507 7.27 eV (C1)	363 O16Th8.q0.m1-849 7.27 eV (C1)	364 O16Th8.q0.m1-642 7.29 eV (C1)	365 O16Th8.q0.m1-223 7.31 eV (C1)	366 O16Th8.q0.m1-170 7.33 eV (C1)
					
367 O16Th8.q0.m1-533 7.32 eV (C1)	368 O16Th8.q0.m1-749 7.32 eV (C1)	369 O16Th8.q0.m1-439 7.35 eV (C1)	370 O16Th8.q0.m1-253 7.35 eV (C1)	371 O16Th8.q0.m1-477 7.36 eV (C1)	372 O16Th8.q0.m1-103 7.39 eV (C1)
					
373 O16Th8.q0.m1-503 7.41 eV (C1)	374 O16Th8.q0.m1-262 7.41 eV (C1)	375 O16Th8.q0.m1-384 7.40 eV (C1)	376 O16Th8.q0.m1-773 7.44 eV (C1)	377 O16Th8.q0.m1-640 7.42 eV (C1)	378 O16Th8.q0.m1-319 7.43 eV (C1)
					
379 O16Th8.q0.m1-748 7.44 eV (C1)	380 O16Th8.q0.m1-501 7.46 eV (C1)	381 O16Th8.q0.m1-847 7.50 eV (C1)	382 O16Th8.q0.m1-437 7.49 eV (C1)	383 O16Th8.q0.m1-145 7.54 eV (C1)	384 O16Th8.q0.m1-405 7.55 eV (C1)
					
385 O16Th8.q0.m1-770 7.57 eV (C1)	386 O16Th8.q0.m1-137 7.55 eV (C1)	387 O16Th8.q0.m1-118 7.59 eV (C1)	388 O16Th8.q0.m1-373 7.60 eV (C1)	389 O16Th8.q0.m1-488 7.60 eV (C1)	390 O16Th8.q0.m1-92 7.63 eV (C1)
					
391 O16Th8.q0.m1-574 7.63 eV (C1)	392 O16Th8.q0.m1-263 7.63 eV (C1)	393 O16Th8.q0.m1-204 7.65 eV (C1)	394 O16Th8.q0.m1-315 7.67 eV (C1)	395 O16Th8.q0.m1-736 7.68 eV (C1)	396 O16Th8.q0.m1-706 7.65 eV (C1)

Th <sub>8</sub> O <sub>16</sub> (Continued from previous page)					
					
397 O16Th8.q0.m1-724 7.71 eV (C1)	398 O16Th8.q0.m1-261 7.74 eV (C1)	399 O16Th8.q0.m1-166 7.73 eV (C1)	400 O16Th8.q0.m1-222 7.78 eV (C1)	401 O16Th8.q0.m1-96 7.80 eV (C1)	402 O16Th8.q0.m1-257 7.82 eV (C1)
					
403 O16Th8.q0.m1-790 7.82 eV (C1)	404 O16Th8.q0.m1-844 7.84 eV (C1)	405 O16Th8.q0.m1-627 7.84 eV (C1)	406 O16Th8.q0.m1-512 7.86 eV (C1)	407 O16Th8.q0.m1-324 7.86 eV (C1)	408 O16Th8.q0.m1-388 7.85 eV (C1)
					
409 O16Th8.q0.m1-214 7.85 eV (C1)	410 O16Th8.q0.m1-532 7.86 eV (C1)	411 O16Th8.q0.m1-684 7.87 eV (C1)	412 O16Th8.q0.m1-841 7.88 eV (C1)	413 O16Th8.q0.m1-573 7.85 eV (C1)	414 O16Th8.q0.m1-557 7.89 eV (C1)
					
415 O16Th8.q0.m1-322 7.88 eV (C1)	416 O16Th8.q0.m1-687 7.91 eV (C1)	417 O16Th8.q0.m1-695 7.94 eV (C1)	418 O16Th8.q0.m1-747 7.93 eV (C1)	419 O16Th8.q0.m1-368 7.93 eV (C1)	420 O16Th8.q0.m1-761 7.96 eV (C1)
					
421 O16Th8.q0.m1-686 7.95 eV (C1)	422 O16Th8.q0.m1-677 7.95 eV (C1)	423 O16Th8.q0.m1-316 7.95 eV (C1)	424 O16Th8.q0.m1-341 7.95 eV (C1)	425 O16Th8.q0.m1-295 7.96 eV (C1)	426 O16Th8.q0.m1-186 7.98 eV (C1)
					
427 O16Th8.q0.m1-644 7.97 eV (C1)	428 O16Th8.q0.m1-794 7.99 eV (C1)	429 O16Th8.q0.m1-130 7.99 eV (C1)	430 O16Th8.q0.m1-264 7.99 eV (C1)	431 O16Th8.q0.m1-387 8.02 eV (C1)	432 O16Th8.q0.m1-705 8.01 eV (C1)

Th <sub>8</sub> O <sub>16</sub> (Continued from previous page)					
					
433 O16Th8.q0.m1-132 8.05 eV (C1)	434 O16Th8.q0.m1-393 8.03 eV (C1)	435 O16Th8.q0.m1-608 8.07 eV (C1)	436 O16Th8.q0.m1-147 8.04 eV (C1)	437 O16Th8.q0.m1-372 8.03 eV (C1)	438 O16Th8.q0.m1-361 8.07 eV (C1)
					
439 O16Th8.q0.m1-685 8.08 eV (C1)	440 O16Th8.q0.m1-447 8.05 eV (C1)	441 O16Th8.q0.m1-697 8.10 eV (C1)	442 O16Th8.q0.m1-181 8.11 eV (C1)	443 O16Th8.q0.m1-349 8.11 eV (C1)	444 O16Th8.q0.m1-639 8.08 eV (C1)
					
445 O16Th8.q0.m1-776 8.13 eV (C1)	446 O16Th8.q0.m1-850 8.13 eV (C1)	447 O16Th8.q0.m1-254 8.12 eV (C1)	448 O16Th8.q0.m1-309 8.14 eV (C1)	449 O16Th8.q0.m1-587 8.13 eV (C1)	450 O16Th8.q0.m1-474 8.16 eV (C1)
					
451 O16Th8.q0.m1-138 8.16 eV (C1)	452 O16Th8.q0.m1-360 8.18 eV (C1)	453 O16Th8.q0.m1-762 8.22 eV (C1)	454 O16Th8.q0.m1-414 8.23 eV (C1)	455 O16Th8.q0.m1-449 8.24 eV (C1)	456 O16Th8.q0.m1-112 8.24 eV (C1)
					
457 O16Th8.q0.m1-293 8.26 eV (C1)	458 O16Th8.q0.m1-567 8.20 eV (C1)	459 O16Th8.q0.m1-636 8.29 eV (C1)	460 O16Th8.q0.m1-73 8.27 eV (C1)	461 O16Th8.q0.m1-621 8.32 eV (C1)	462 O16Th8.q0.m1-290 8.32 eV (C1)
					
463 O16Th8.q0.m1-436 8.32 eV (C1)	464 O16Th8.q0.m1-232 8.34 eV (C1)	465 O16Th8.q0.m1-206 8.39 eV (C1)	466 O16Th8.q0.m1-472 8.40 eV (C1)	467 O16Th8.q0.m1-116 8.45 eV (C1)	468 O16Th8.q0.m1-596 8.41 eV (C1)

Th <sub>8</sub> O <sub>16</sub> (Continued from previous page)					
 469 O16Th8.q0.m1-67 8.47 eV (C1)	 470 O16Th8.q0.m1-91 8.56 eV (C1)	 471 O16Th8.q0.m1-665 8.54 eV (C1)	 472 O16Th8.q0.m1-294 8.55 eV (C1)	 473 O16Th8.q0.m1-623 8.56 eV (C1)	 474 O16Th8.q0.m1-65 8.59 eV (C1)
 475 O16Th8.q0.m1-680 8.59 eV (C1)	 476 O16Th8.q0.m1-470 8.59 eV (C1)	 477 O16Th8.q0.m1-335 8.70 eV (C1)	 478 O16Th8.q0.m1-482 8.77 eV (C1)	 479 O16Th8.q0.m1-330 8.82 eV (C1)	 480 O16Th8.q0.m1-475 8.83 eV (C1)
 481 O16Th8.q0.m1-43 8.88 eV (C1)	 482 O16Th8.q0.m1-390 8.88 eV (C1)	 483 O16Th8.q0.m1-16 8.89 eV (C1)	 484 O16Th8.q0.m1-306 8.96 eV (C1)	 485 O16Th8.q0.m1-528 8.95 eV (C1)	 486 O16Th8.q0.m1-471 8.94 eV (C1)
 487 O16Th8.q0.m1-273 8.95 eV (C1)	 488 O16Th8.q0.m1-550 9.01 eV (C1)	 489 O16Th8.q0.m1-565 8.99 eV (C1)	 490 O16Th8.q0.m1-85 9.20 eV (C1)	 491 O16Th8.q0.m1-165 9.21 eV (C1)	 492 O16Th8.q0.m1-329 9.24 eV (C1)
 493 O16Th8.q0.m1-260 9.33 eV (C1)	 494 O16Th8.q0.m1-188 9.82 eV (C1)	 495 O16Th8.q0.m1-778 9.81 eV (C1)	 496 O16Th8.q0.m1-251 9.86 eV (C1)	 497 O16Th8.q0.m1-643 9.86 eV (C1)	 498 O16Th8.q0.m1-777 9.88 eV (C1)
 499 O16Th8.q0.m1-795 9.91 eV (C1)	 500 O16Th8.q0.m1-792 9.96 eV (C1)	 501 O16Th8.q0.m1-558 10.08 eV (C1)	 502 O16Th8.q0.m1-333 10.50 eV (C1)	 503 O16Th8.q0.m1-331 10.58 eV (C1)	 504 O16Th8.q0.m1-664 10.98 eV (C1)

Th<sub>8</sub>O<sub>16</sub> (*Continued from previous page*)

 <p>505 O16Th8.q0.m1-551 11.07 eV (C1)</p>	 <p>506 O16Th8.q0.m1-383 11.31 eV (C1)</p>	 <p>507 O16Th8.q0.m1-693 15.34 eV (C1)</p>
---	---	--