

## Dalton Trans. – Full Paper

### Diarylhalotelluronium(IV) Cations $[(8\text{-Me}_2\text{NC}_{10}\text{H}_6)_2\text{TeX}]^+$ (X = Cl, Br, I)

#### Stabilized by Intramolecularly Coordinating N-Donor Substituents

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**Table S1.** Crystal data and structure refinement of **1** - **7**.

|                                                                 | <b>1</b> ·Cl <sup>-</sup> ·H <sub>2</sub> O·½THF                                              | <b>1</b> ·PF <sub>6</sub> <sup>-</sup>                              | <b>2</b> ·Br <sup>-</sup>                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------|
| Formula                                                         | C <sub>52</sub> H <sub>56</sub> Cl <sub>4</sub> N <sub>4</sub> O <sub>3</sub> Te <sub>2</sub> | C <sub>24</sub> H <sub>24</sub> ClF <sub>6</sub> N <sub>2</sub> PTe | C <sub>26</sub> H <sub>27</sub> Br <sub>2</sub> N <sub>3</sub> Te |
| Formula weight, g mol <sup>-1</sup>                             | 1182.01                                                                                       | 648.47                                                              | 668.93                                                            |
| Crystal system                                                  | Monoclinic                                                                                    | Triclinic                                                           | Triclinic                                                         |
| Crystal size, mm                                                | 0.41 × 0.35 × 0.15                                                                            | 0.27 × 0.21 × 0.07                                                  | 0.36 × 0.28 × 0.17                                                |
| Space group                                                     | <i>P</i> 2 <sub>1</sub> / <i>c</i>                                                            | <i>P</i> -1                                                         | <i>P</i> -1                                                       |
| <i>a</i> , Å                                                    | 33.779(2)                                                                                     | 9.2967(10)                                                          | 8.785(8)                                                          |
| <i>b</i> , Å                                                    | 8.8592(8)                                                                                     | 10.2462(11)                                                         | 11.671(13)                                                        |
| <i>c</i> , Å                                                    | 17.7936(12)                                                                                   | 13.4833(16)                                                         | 14.197(12)                                                        |
| <i>α</i> , °                                                    | 90.00                                                                                         | 92.378(9)                                                           | 105.03(9)                                                         |
| <i>β</i> , °                                                    | 109.754(5)                                                                                    | 98.203(9)                                                           | 98.59(7)                                                          |
| <i>γ</i> , °                                                    | 90.00                                                                                         | 97.233(9)                                                           | 109.95(8)                                                         |
| <i>V</i> , Å <sup>3</sup>                                       | 5011.5(6)                                                                                     | 1258.8(2)                                                           | 1275(2)                                                           |
| <i>Z</i>                                                        | 2                                                                                             | 2                                                                   | 2                                                                 |
| <i>ρ</i> <sub>calcd</sub> , Mg m <sup>-3</sup>                  | 1.567                                                                                         | 1.711                                                               | 1.742                                                             |
| <i>μ</i> (Mo <i>Kα</i> ), mm <sup>-1</sup>                      | 1.424                                                                                         | 1.412                                                               | 4.318                                                             |
| <i>F</i> (000)                                                  | 1184                                                                                          | 640                                                                 | 652                                                               |
| <i>θ</i> range, deg                                             | 2.39 to 29.32                                                                                 | 2.01 to 29.18                                                       | 2.05 to 29.23                                                     |
| Index ranges                                                    | -45 ≤ <i>h</i> ≤ 46<br>-11 ≤ <i>k</i> ≤ 12<br>-11 ≤ <i>l</i> ≤ 24                             | -11 ≤ <i>h</i> ≤ 12<br>-14 ≤ <i>k</i> ≤ 14<br>-18 ≤ <i>l</i> ≤ 16   | -12 ≤ <i>h</i> ≤ 11<br>-16 ≤ <i>k</i> ≤ 16<br>-19 ≤ <i>l</i> ≤ 19 |
| No. of reflns collected                                         | 10858                                                                                         | 14301                                                               | 13649                                                             |
| Completeness to <i>θ</i> <sub>max</sub>                         | 97.4%                                                                                         | 98.6%                                                               | 98.1%                                                             |
| No. indep. Reflns                                               | 5704                                                                                          | 6712                                                                | 6791                                                              |
| No. obsd reflns with ( <i>I</i> > 2σ( <i>I</i> ))               | 4370                                                                                          | 4804                                                                | 5311                                                              |
| No. refined params                                              | 286                                                                                           | 316                                                                 | 289                                                               |
| GooF ( <i>F</i> <sup>2</sup> )                                  | 0.980                                                                                         | 0.913                                                               | 1.041                                                             |
| <i>R</i> <sub>1</sub> ( <i>F</i> ) ( <i>I</i> > 2σ( <i>I</i> )) | 0.0361                                                                                        | 0.0411                                                              | 0.0486                                                            |
| w <i>R</i> <sub>2</sub> ( <i>F</i> <sup>2</sup> ) (all data)    | 0.0909                                                                                        | 0.0953                                                              | 0.1246                                                            |
| Largest diff peak/hole, e Å <sup>-3</sup>                       | 0.655 / -1.030                                                                                | 0.876 / -0.694                                                      | 1.705 / -1.195                                                    |
| CCDC number                                                     | 928259                                                                                        | 928260                                                              | 928261                                                            |

**Table S1.**      cont.

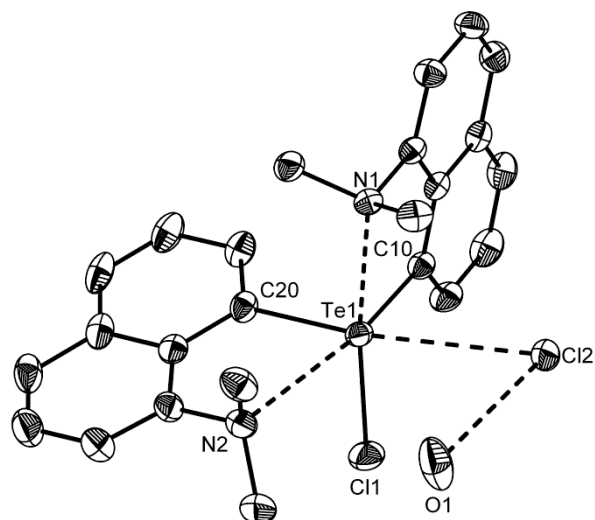
| <b>2<sub>2</sub>·Br<sup>-</sup>·PF<sub>6</sub><sup>-</sup></b>                                 | <b>3·I<sub>3</sub><sup>-</sup></b>                               | <b>3·I<sub>3</sub><sup>-</sup>·I<sub>2</sub></b>                 | <b>4</b>                                                          |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------|
| C <sub>48</sub> H <sub>48</sub> Br <sub>3</sub> F <sub>6</sub> N <sub>4</sub> PTe <sub>2</sub> | C <sub>24</sub> H <sub>24</sub> I <sub>4</sub> N <sub>2</sub> Te | C <sub>24</sub> H <sub>24</sub> I <sub>6</sub> N <sub>2</sub> Te | C <sub>24</sub> H <sub>20</sub> Cl <sub>6</sub> N <sub>2</sub> Te |
| 1320.80                                                                                        | 975.65                                                           | 1229.45                                                          | 676.72                                                            |
| Monoclinic                                                                                     | Monoclinic                                                       | Monoclinic                                                       | Tetragonal                                                        |
| 0.31 × 0.25 × 0.18                                                                             | 0.18 × 0.15 × 0.06                                               | 0.49 × 0.17 × 0.04                                               | 0.50 × 0.20 × 0.12                                                |
| <i>P</i> 2 <sub>1</sub> / <i>c</i>                                                             | <i>P</i> 2 <sub>1</sub> / <i>c</i>                               | <i>C</i> 2/ <i>c</i>                                             | <i>I</i> -4                                                       |
| 15.915(18)                                                                                     | 7.837(3)                                                         | 31.471(5)                                                        | 22.4140(11)                                                       |
| 9.941(7)                                                                                       | 17.587(9)                                                        | 12.1929(17)                                                      | 22.4140(11)                                                       |
| 16.361(13)                                                                                     | 19.891(11)                                                       | 21.729(3)                                                        | 10.7778(5)                                                        |
| 90                                                                                             | 90                                                               | 90                                                               | 90                                                                |
| 110.84(8)                                                                                      | 97.28(4)                                                         | 132.577(2)                                                       | 90                                                                |
| 90                                                                                             | 90                                                               | 90                                                               | 90                                                                |
| 2419(4)                                                                                        | 2719(2)                                                          | 6139.8(15)                                                       | 5414.6(5)                                                         |
| 2                                                                                              | 4                                                                | 8                                                                | 8                                                                 |
| 1.813                                                                                          | 2.383                                                            | 2.660                                                            | 1.660                                                             |
| 3.778                                                                                          | 5.650                                                            | 7.019                                                            | 1.707                                                             |
| 1284                                                                                           | 1784                                                             | 4416                                                             | 2656                                                              |
| 2.05 to 29.25                                                                                  | 2.06 to 29.21                                                    | 1.76 to 30.54                                                    | 2.78 to 29.17                                                     |
| -18 ≤ h ≤ 21                                                                                   | -10 ≤ h ≤ 10                                                     | -42 ≤ h ≤ 44                                                     | - 30 ≤ h ≤ 30                                                     |
| -13 ≤ k ≤ 13                                                                                   | -24 ≤ k ≤ 24                                                     | -17 ≤ k ≤ 15                                                     | -30 ≤ k ≤ 30                                                      |
| -22 ≤ l ≤ 22                                                                                   | -27 ≤ l ≤ 22                                                     | -31 ≤ l ≤ 23                                                     | -14 ≤ l ≤ 14                                                      |
| 18185                                                                                          | 21035                                                            | 9367                                                             | 25830                                                             |
| 98.7%                                                                                          | 98.8%                                                            | 99.6%                                                            | 99.5%                                                             |
| 6501                                                                                           | 7292                                                             | 9367                                                             | 7259                                                              |
| 2951                                                                                           | 3531                                                             | 7256                                                             | 6514                                                              |
| 290                                                                                            | 280                                                              | 307                                                              | 298                                                               |
| 0.846                                                                                          | 0.802                                                            | 1.018                                                            | 1.013                                                             |
| 0.0628                                                                                         | 0.0434                                                           | 0.0347                                                           | 0.0318                                                            |
| 0.1330                                                                                         | 0.1129                                                           | 0.0820                                                           | 0.0852                                                            |
| 1.584 / -0.969                                                                                 | 0.853 / -1.709                                                   | 2.177 / -2.108                                                   | 0.897 / -0.638                                                    |
| 928262                                                                                         | 928263                                                           | 928264                                                           | 928265                                                            |

**Table S1.** cont.

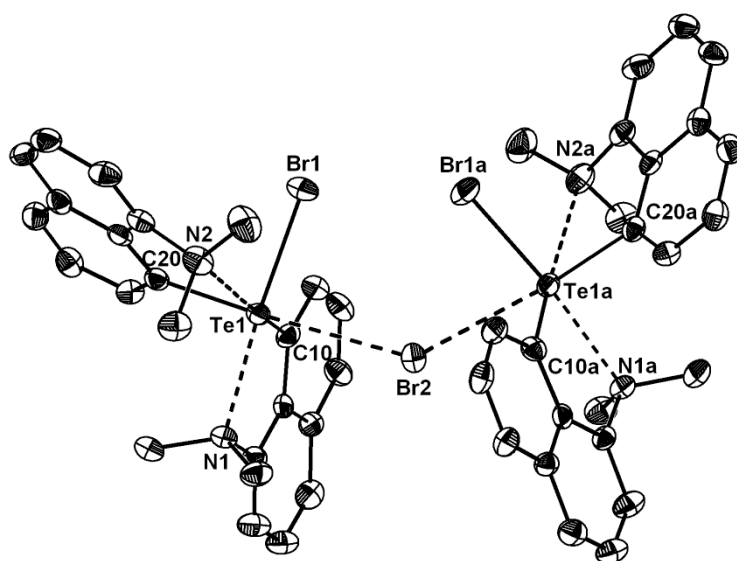
| <b>5</b>                                                          | <b>6·Br<sub>3</sub><sup>−</sup></b>                               | <b>7·Cl<sup>−</sup></b>                              | <b>7·Br<sup>−</sup>·H<sub>2</sub>O·THF</b>                         |
|-------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------|
| C <sub>24</sub> H <sub>22</sub> Br <sub>4</sub> N <sub>2</sub> Te | C <sub>24</sub> H <sub>22</sub> Br <sub>6</sub> N <sub>2</sub> Te | C <sub>24</sub> H <sub>25</sub> ClN <sub>2</sub> OTe | C <sub>28</sub> H <sub>35</sub> BrN <sub>2</sub> O <sub>3</sub> Te |
| 785.68                                                            | 945.50                                                            | 520.51                                               | 655.09                                                             |
| Orthorhombic                                                      | Triclinic                                                         | Orthorhombic                                         | Monoclinic                                                         |
| 0.10 × 0.10 × 0.05                                                | 0.39 × 0.14 × 0.12                                                | 0.42 × 0.39 × 0.13                                   | 0.50 × 0.11 × 0.06                                                 |
| <i>P bca</i>                                                      | <i>P</i> -1                                                       | <i>P ca</i> 2 <sub>1</sub>                           | <i>P</i> 2 <sub>1</sub> / <i>c</i>                                 |
| 14.315(6)                                                         | 9.2192(12)                                                        | 12.8089(18)                                          | 13.2151(13)                                                        |
| 23.765(6)                                                         | 12.0020(16)                                                       | 10.4279(14)                                          | 9.0546(5)                                                          |
| 14.779(12)                                                        | 14.3375(18)                                                       | 16.766(2)                                            | 23.424(2)                                                          |
| 90                                                                | 89.947(10)                                                        | 90                                                   | 90                                                                 |
| 90                                                                | 108.386(10)                                                       | 90                                                   | 103.826(8)                                                         |
| 90                                                                | 110.917(10)                                                       | 90                                                   | 90                                                                 |
| 5028(5)                                                           | 1395.0(3)                                                         | 2239.4(5)                                            | 2721.7(4)                                                          |
| 8                                                                 | 2                                                                 | 4                                                    | 4                                                                  |
| 2.076                                                             | 2.251                                                             | 1.544                                                | 1.599                                                              |
| 7.556                                                             | 9.676                                                             | 1.465                                                | 2.593                                                              |
| 2976                                                              | 884                                                               | 1040                                                 | 1312                                                               |
| 2.16 to 29.27                                                     | 1.83 to 29.20                                                     | 1.95 to 30.50                                        | 1.79 to 29.24                                                      |
| 0 ≤ h ≤ 19                                                        | −12 ≤ h ≤ 12                                                      | −15 ≤ h ≤ 18                                         | −18 ≤ h ≤ 17                                                       |
| 0 ≤ k ≤ 32                                                        | −16 ≤ k ≤ 16                                                      | −14 ≤ k ≤ 14                                         | −10 ≤ k ≤ 12                                                       |
| 0 ≤ l ≤ 20                                                        | −19 ≤ l ≤ 19                                                      | −20 ≤ l ≤ 23                                         | −32 ≤ l ≤ 32                                                       |
| 6764                                                              | 14896                                                             | 17741                                                | 19661                                                              |
| 98.6%                                                             | 98.0%                                                             | 99.9%                                                | 98.7%                                                              |
| 6764                                                              | 7426                                                              | 5910                                                 | 7309                                                               |
| 4008                                                              | 4811                                                              | 5180                                                 | 4080                                                               |
| 280                                                               | 298                                                               | 266                                                  | 328                                                                |
| 0.928                                                             | 0.964                                                             | 1.069                                                | 0.873                                                              |
| 0.0492                                                            | 0.0514                                                            | 0.0219                                               | 0.0451                                                             |
| 0.0807                                                            | 0.1048                                                            | 0.0491                                               | 0.1116                                                             |
| 0.721 / −1.040                                                    | 0.885 / −0.954                                                    | 0.680 / −0.475                                       | 0.980 / −0.535                                                     |
| 928266                                                            | 928267                                                            | 928268                                               | 928269                                                             |

**Table S1.**      cont.

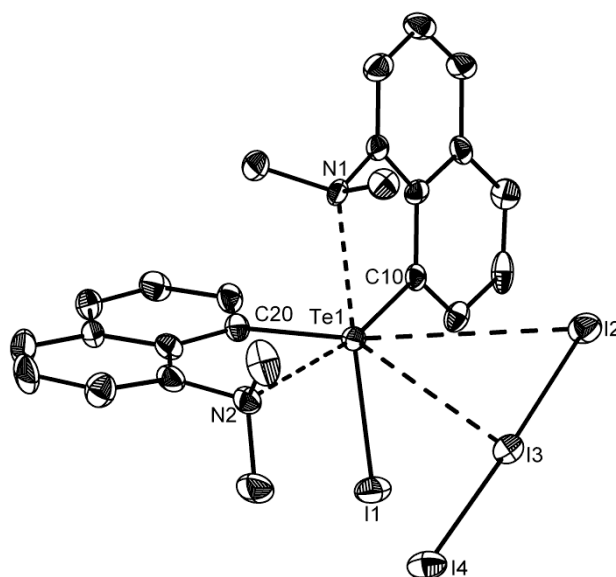
| $7 \cdot \Gamma$                                  | $7 \cdot \text{I}_3^- \cdot \text{H}_2\text{O}$            |
|---------------------------------------------------|------------------------------------------------------------|
| $\text{C}_{24}\text{H}_{25}\text{IN}_2\text{OTe}$ | $\text{C}_{24}\text{H}_{25}\text{I}_3\text{N}_2\text{OTe}$ |
| 611.96                                            | 865.76                                                     |
| Orthorhombic                                      | Monoclinic                                                 |
| $0.21 \times 0.17 \times 0.12$                    | $0.33 \times 0.21 \times 0.08$                             |
| $P\ ca2_1$                                        | $P\ 2_1/n$                                                 |
| 11.496(5)                                         | 11.2981(10)                                                |
| 21.960(11)                                        | 12.4425(7)                                                 |
| 18.202(9)                                         | 19.647(2)                                                  |
| 90                                                | 90                                                         |
| 90                                                | 94.176(8)                                                  |
| 90                                                | 90                                                         |
| 4595(4)                                           | 2754.6(4)                                                  |
| 8                                                 | 4                                                          |
| 1.769                                             | 2.088                                                      |
| 2.656                                             | 4.460                                                      |
| 2368                                              | 1608                                                       |
| 1.85 to 29.22                                     | 2.70 to 29.21                                              |
| $0 \leq h \leq 15$                                | $-15 \leq h \leq 15$                                       |
| $0 \leq k \leq 29$                                | $-14 \leq k \leq 17$                                       |
| $-24 \leq l \leq 23$                              | $-19 \leq l \leq 26$                                       |
| 9791                                              | 19462                                                      |
| 98.0%                                             | 97.8%                                                      |
| 9791                                              | 7311                                                       |
| 4926                                              | 5035                                                       |
| 524                                               | 280                                                        |
| 0.859                                             | 0.849                                                      |
| 0.0580                                            | 0.0354                                                     |
| 0.1386                                            | 0.0864                                                     |
| 0.847 / -0.977                                    | 1.522 / -1.244                                             |
| 928270                                            | 928271                                                     |



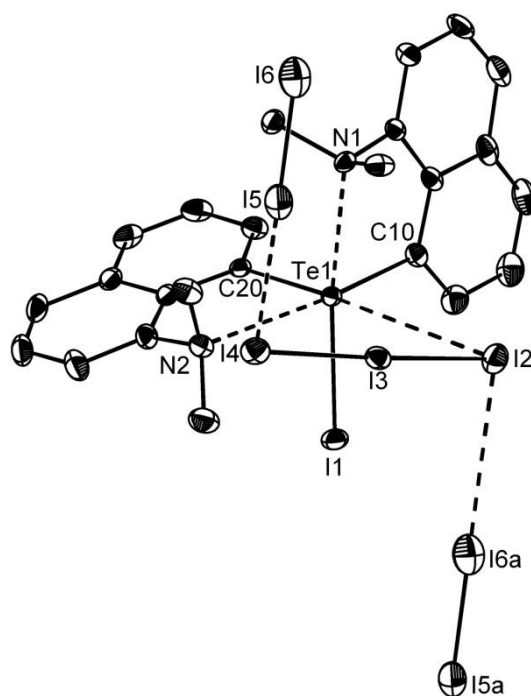
**Figure S1.** Molecular structure of  $1 \cdot \text{Cl}^- \cdot \text{H}_2\text{O} \cdot \frac{1}{2}\text{THF}$  showing 30% probability ellipsoids and the crystallographic numbering scheme. Selected bond parameters [ $\text{\AA}$ ,  $^\circ$ ]: Te1-Cl1 2.444(1), Te1-C10 2.141(3), Te1-C20 2.145(3), Te1 $\cdots$ N1 2.445(3), Te1 $\cdots$ N2 2.800(3), C10-Te1-C20 92.8(1), Cl1-Te1-C10 92.63(9), Cl1-Te1-C20 90.4(1), Ion contact: Te1 $\cdots$ Cl2 3.173(1).



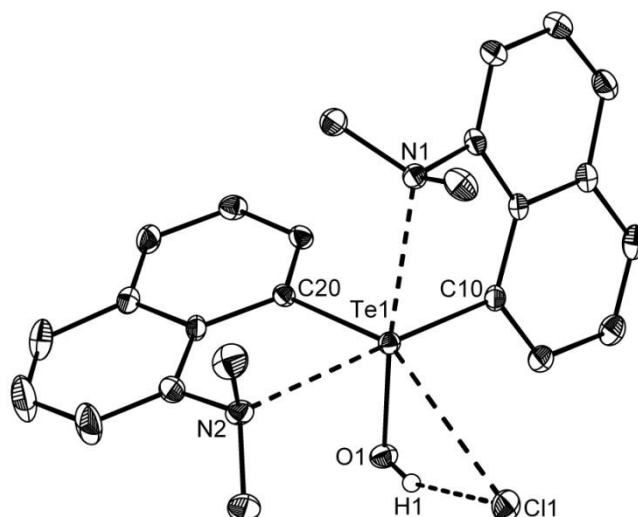
**Figure S2.** Molecular structure of  $2_2 \cdot \text{Br}^- \cdot \text{PF}_6^-$  showing 30% probability ellipsoids and the crystallographic numbering scheme (symmetry code used to generate equivalent atoms:  $a = 1 - x, y, 0.5 - z$ ). Selected bond parameters [ $\text{\AA}$ ,  $^\circ$ ]: Te1-Br1 2.582(2), Te1-C10 2.132(7), Te1-C20 2.137(8), Te1 $\cdots$ N1 2.502(6), Te1 $\cdots$ N2 2.732(8), Br1-Te1-C10 93.2(2), Br1-Te1-C20 89.7(2), C10-Te1-C20 95.5(3), Ion contact: Te1 $\cdots$ Br2 3.272(4).



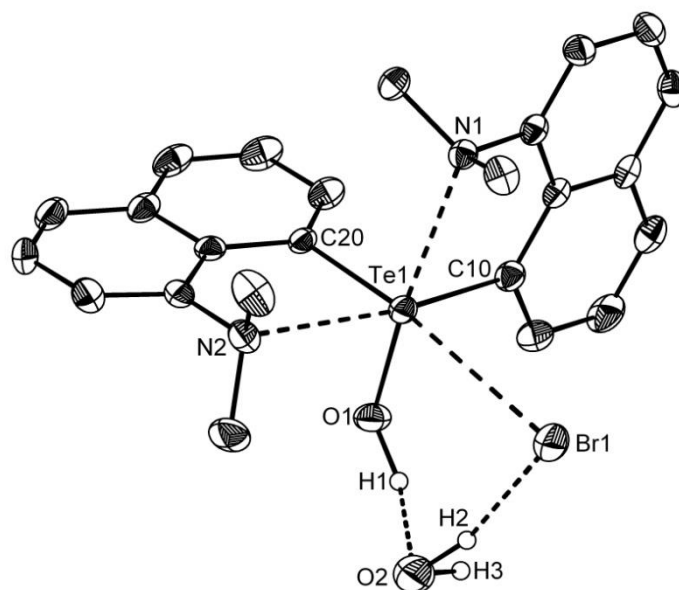
**Figure S3.** Molecular structure of  $3 \cdot \text{I}_3^-$  showing 30% probability ellipsoids and the crystallographic numbering scheme. Selected bond parameters [ $\text{\AA}$ ,  $^\circ$ ]: Te1-I1 2.780(2), Te1-C10 2.165(8), Te1-C20 2.136(8), Te1 $\cdots$ N1 2.532(7), Te2 $\cdots$ N2 2.743(7), I2-I3 2.921(2), I3-I4 2.918(1), I1-Te1-C10 95.2(2), I1-Te1-C20 91.8(3), C10-Te1-C20 96.7(3), Ion contacts: Te1 $\cdots$ I2 4.037(2), Te1 $\cdots$ I3 4.219(2).



**Figure S4.** Molecular structure of  $3 \cdot \text{I}_3^- \cdot \text{I}_2$  showing 30% probability ellipsoids and the crystallographic numbering scheme. Selected bond parameters [ $\text{\AA}$ ,  $^\circ$ ]: Te1-I1 2.7827(8), Te1-C10 2.16(1), Te1-C20 2.138(6), Te1 $\cdots$ N1 2.515(7), Te1 $\cdots$ N2 2.80(1), I1-Te1-C10 94.9(2), I1-Te1-C20 91.6(2), C10-Te1-C20 96.2(3), Ion contact: Te1 $\cdots$ I2 3.8606(8).

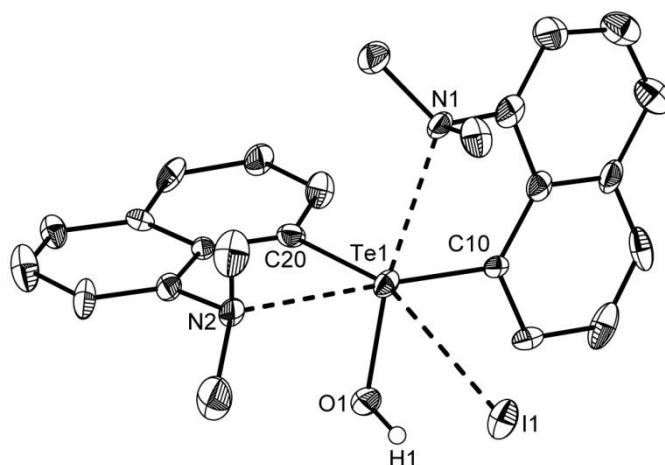


**Figure S5.** Molecular structure of  $7 \cdot \text{Cl}^-$  showing 30% probability ellipsoids and the crystallographic numbering scheme. Selected bond parameters [ $\text{\AA}$ ,  $^\circ$ ]: Te1-O1 1.951(2), Te1-C10 2.134(2), Te1-C20 2.123(2), Te1 $\cdots$ N1 2.596(2), Te1 $\cdots$ N2 2.682(2), O1-H1 0.70(3), O1 $\cdots$ Cl1 2.960(2), Cl1 $\cdots$ H1 2.32(3), O1-Te1-C10 91.25(9), O1-Te1-C20 89.00(8), C10-Te1-C20 96.81(9). Ion contact: Te1 $\cdots$ Cl1 3.2535(7).

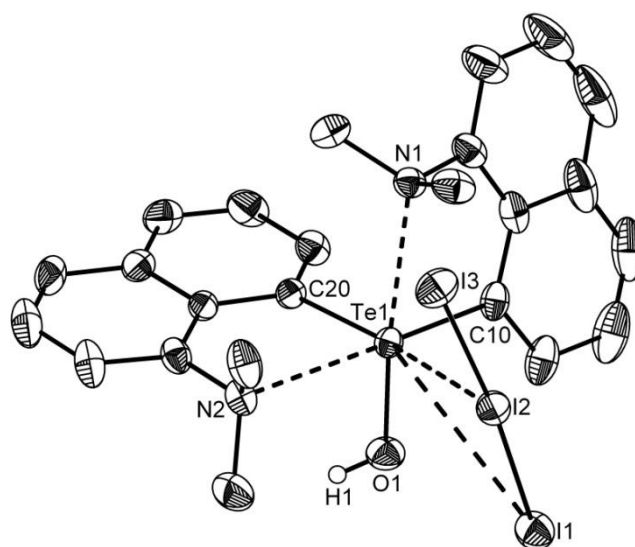


**Figure S6.** Molecular structure of  $7 \cdot \text{Br}^- \cdot \text{H}_2\text{O} \cdot \text{THF}$  showing 30% probability ellipsoids and the crystallographic numbering scheme. Selected bond parameters [ $\text{\AA}$ ,  $^\circ$ ]: Te1-O1 1.957(3), Te1-C10 2.130(5), Te1-C20 2.127(5), Te1 $\cdots$ N1 2.586(3), Te1 $\cdots$ N2 2.709(4), O1-H1 1.07(9), O2 $\cdots$ H1 1.71(9), O1 $\cdots$ O2 2.729(8), O2-H2 1.05(6), O2-H3 1.02(4), Br1 $\cdots$ H2 2.20(6), O2 $\cdots$ Br1 3.232(5), O1-Te1-C10 92.2(2), O1-Te1-C20 87.6(2), C10-Te1-C20 94.9(2), Ion contact: Te1 $\cdots$ Br1 3.4777(9).





**Figure S7.** Molecular structure of  $7 \cdot \Gamma$  showing 30% probability ellipsoids and the crystallographic numbering scheme. Selected bond parameters [ $\text{\AA}$ ,  $^\circ$ ]: Conformer 1 (shown): Te1-O1 1.969(9), Te1-C10 2.15(1), Te1-C20 2.13(1), Te1 $\cdots$ N1 2.61(1), Te1 $\cdots$ N2 2.67(1), O1-Te1-C10 91.9(4), O1-Te1-C20 89.9(4), C10-Te1-C20 97.4(5). Ion contact: Te1 $\cdots$ I1 3.595(2). Conformer 2 (not shown): Te2-O2 1.933(9), Te2-C30 2.15(1), Te2-C40 2.14(1), Te2-N3 2.595(9), Te2-N4 2.70(1), O2-Te2-C30 94.3(6), O2-Te2-C40 90.7(4), Ion contact: Te2 $\cdots$ I2 3.591(2).



**Figure S8.** Molecular structure of  $7 \cdot \text{I}_3^- \cdot \text{H}_2\text{O}$  showing 30% probability ellipsoids and the crystallographic numbering scheme. Selected bond parameters [ $\text{\AA}$ ,  $^\circ$ ]: Te1-O1 1.967(3), Te1-C10 2.118(5), Te1-C20 2.108(4), Te1 $\cdots$ N1 2.566(4), Te1 $\cdots$ N2 2.656(4), O1-H1 0.821(4), O1-Te1-C10 91.2(2), O1-Te1-C20 90.7(2). Ion contacts: Te1 $\cdots$ I1 3.9635(5), Te1 $\cdots$ I2 4.0977(5).

**Table S2.** Absolute energies and zero-point corrections together with point groups applied.

| Molecule                                                                                             | Point group applied | Absolute energy | Zero-point correction | Sum of electronic and zero-point Energies |
|------------------------------------------------------------------------------------------------------|---------------------|-----------------|-----------------------|-------------------------------------------|
| Cl <sup>-</sup>                                                                                      | O <sub>h</sub>      | -460.245171     | —                     | -460.245171                               |
| Br <sup>-</sup>                                                                                      | O <sub>h</sub>      | -2574.212038    | —                     | -2574.212038                              |
| I <sup>-</sup>                                                                                       | O <sub>h</sub>      | -11.535524      | —                     | -11.535524                                |
| Cl <sub>2</sub>                                                                                      | D <sub>∞h</sub>     | -920.315118     | 0.001291              | -920.313827                               |
| Br <sub>2</sub>                                                                                      | D <sub>∞h</sub>     | -5148.247583    | 0.000745              | -5148.246838                              |
| I <sub>2</sub>                                                                                       | D <sub>∞h</sub>     | -22.914513      | 0.000503              | -22.914010                                |
| Ph <sub>2</sub> Te                                                                                   | C <sub>1</sub>      | -471.350831     | 0.180020              | -471.170811                               |
| Ph <sub>2</sub> Te···Cl <sub>2</sub> ( <b>MC</b> )                                                   | C <sub>1</sub>      | -1391.681932    | 0.182266              | -1391.499666                              |
| Ph <sub>2</sub> Te···Br <sub>2</sub> ( <b>MC</b> )                                                   | C <sub>1</sub>      | -5619.617927    | 0.181646              | -5619.436281                              |
| Ph <sub>2</sub> Te···I <sub>2</sub> ( <b>MC</b> )                                                    | C <sub>1</sub>      | -494.283836     | 0.181374              | -494.102462                               |
| Ph <sub>2</sub> TeCl <sup>+</sup> ( <b>CI</b> )                                                      | C <sub>1</sub>      | -931.288508     | 0.182130              | -931.106379                               |
| Ph <sub>2</sub> TeBr <sup>+</sup> ( <b>CI</b> )                                                      | C <sub>1</sub>      | -3045.247463    | 0.181623              | -3045.065840                              |
| Ph <sub>2</sub> TeI <sup>+</sup> ( <b>CI</b> )                                                       | C <sub>1</sub>      | -482.573006     | 0.181405              | -482.391601                               |
| Ph <sub>2</sub> TeCl <sub>2</sub> ( <b>TB</b> )                                                      | C <sub>2</sub>      | -1391.741067    | 0.183049              | -1391.558018                              |
| Ph <sub>2</sub> TeBr <sub>2</sub> ( <b>TB</b> )                                                      | C <sub>2</sub>      | -5619.653186    | 0.182297              | -5619.470889                              |
| Ph <sub>2</sub> TeI <sub>2</sub> ( <b>TB</b> )                                                       | C <sub>2</sub>      | -494.294924     | 0.181776              | -494.113148                               |
| (8-Me <sub>2</sub> NC <sub>10</sub> H <sub>6</sub> ) <sub>2</sub> Te                                 | C <sub>2</sub>      | -1046.498262    | 0.418257              | -1046.080006                              |
| (8-Me <sub>2</sub> NC <sub>10</sub> H <sub>6</sub> ) <sub>2</sub> Te···Cl <sub>2</sub> ( <b>MC</b> ) | C <sub>1</sub>      | -1966.838221    | 0.421286              | -1966.416935                              |
| (8-Me <sub>2</sub> NC <sub>10</sub> H <sub>6</sub> ) <sub>2</sub> Te···Br <sub>2</sub> ( <b>MC</b> ) | C <sub>1</sub>      | -6194.772312    | 0.420651              | -6194.351662                              |
| (8-Me <sub>2</sub> NC <sub>10</sub> H <sub>6</sub> ) <sub>2</sub> Te···I <sub>2</sub> ( <b>MC</b> )  | C <sub>1</sub>      | -1069.436712    | 0.420439              | -1069.016273                              |
| (8-Me <sub>2</sub> NC <sub>10</sub> H <sub>6</sub> ) <sub>2</sub> TeCl <sup>+</sup> ( <b>CI</b> )    | C <sub>1</sub>      | -1506.492473    | 0.422667              | -1506.069806                              |
| (8-Me <sub>2</sub> NC <sub>10</sub> H <sub>6</sub> ) <sub>2</sub> TeBr <sup>+</sup> ( <b>CI</b> )    | C <sub>1</sub>      | -3620.447711    | 0.422128              | -3620.025583                              |
| (8-Me <sub>2</sub> NC <sub>10</sub> H <sub>6</sub> ) <sub>2</sub> TeI <sup>+</sup> ( <b>CI</b> )     | C <sub>1</sub>      | -1057.767340    | 0.421604              | -1057.345735                              |
| (8-Me <sub>2</sub> NC <sub>10</sub> H <sub>6</sub> ) <sub>2</sub> TeCl <sub>2</sub> ( <b>TB</b> )    | C <sub>2</sub>      | -1966.896775    | 0.422026              | -1966.474749                              |
| (8-Me <sub>2</sub> NC <sub>10</sub> H <sub>6</sub> ) <sub>2</sub> TeBr <sub>2</sub> ( <b>TB</b> )    | C <sub>2</sub>      | -6194.809041    | 0.421505              | -6194.387535                              |
| (8-Me <sub>2</sub> NC <sub>10</sub> H <sub>6</sub> ) <sub>2</sub> TeI <sub>2</sub> ( <b>TB</b> )     | C <sub>2</sub>      | -1069.449474    | 0.420988              | -1069.028486                              |

**Table S3.** Coordinates of the optimized gas-phase structures.

| Ph <sub>2</sub> Te :                         |                |               |               | Ph <sub>2</sub> Te ···I <sub>2</sub> (MC) : |               |               |               |
|----------------------------------------------|----------------|---------------|---------------|---------------------------------------------|---------------|---------------|---------------|
| Te                                           | 0.7252595126   | 0.7684946418  | -0.9244993704 | Te                                          | 0.0383232714  | 0.3577483168  | -0.0269307736 |
| C                                            | 0.7388242144   | 0.7624972347  | 1.1877181593  | C                                           | 0.0153889262  | 0.1725111503  | 2.0805794127  |
| C                                            | 1.9611310558   | 0.8368416391  | 1.8514938261  | C                                           | 2.1175723620  | 0.1092155534  | -0.3043190267 |
| C                                            | -0.4434368630  | 0.7383264330  | 1.9247564800  | C                                           | 0.2274048449  | -1.0829864633 | 2.6459976765  |
| C                                            | 1.9988326313   | 0.8971940904  | 3.2390860916  | C                                           | -0.2454591671 | 1.2733226674  | 2.8881663046  |
| H                                            | 2.8884296632   | 0.8364999209  | 1.2886038005  | C                                           | 2.5510623974  | -0.5411092545 | -1.4556429873 |
| C                                            | -0.39777846104 | 0.7747169268  | 3.3112147683  | C                                           | 3.0376467716  | 0.6050881732  | 0.6129011444  |
| H                                            | -1.4009405485  | 0.6908460728  | 1.4184100451  | C                                           | 0.1913782821  | -1.2289614801 | 4.0253030537  |
| C                                            | 0.8214390065   | 0.8607841566  | 3.9721123144  | C                                           | -0.2896244155 | 1.1146311499  | 4.2683370777  |
| H                                            | 2.9556627980   | 0.9584791232  | 3.7465961240  | C                                           | 3.9118825784  | -0.6896950640 | -1.6897634391 |
| H                                            | -1.3229109634  | 0.7479694989  | 3.8773111969  | C                                           | 4.3949058619  | 0.4407454080  | 0.3758100220  |
| H                                            | 0.8521853719   | 0.8977341401  | 5.0554324466  | C                                           | -0.0695387802 | -0.1316169570 | 4.8363997338  |
| C                                            | -0.7213463732  | -0.7439325237 | -1.2100595372 | C                                           | 4.8339720747  | -0.2028242874 | -0.7742534895 |
| C                                            | -0.6818781328  | -1.9361501532 | -0.4898567213 | H                                           | -0.4082252978 | 2.2509731280  | 2.4482796873  |
| C                                            | -1.7040151764  | -0.5589823173 | -2.1797491655 | H                                           | 2.7038585688  | 1.1196945664  | 1.5065928430  |
| C                                            | -1.6257572244  | -2.9243308312 | -0.7312001309 | H                                           | -0.4936017129 | 1.9737797981  | 4.8977669299  |
| H                                            | 0.0847744586   | -2.0951704620 | 0.2600870457  | H                                           | 5.1123000260  | 0.8262329058  | 1.0919481357  |
| C                                            | -2.6314326604  | -1.5620568422 | -2.4332444456 | H                                           | -0.1030995935 | -0.2502469077 | 5.9137470672  |
| H                                            | -1.7560751670  | 0.3728150514  | -2.7326959749 | H                                           | 5.8958737159  | -0.3235452160 | -0.9566785634 |
| C                                            | -2.5984126851  | -2.7436834045 | -1.7069227407 | H                                           | 0.3613727729  | -2.2053189115 | 4.4656053303  |
| H                                            | -1.5921035071  | -3.8464242305 | -0.1605459641 | H                                           | 0.4212616392  | -1.9448856992 | 2.0171986222  |
| H                                            | -3.3906994412  | -1.4098074932 | -3.1929647569 | H                                           | 4.2485184553  | -1.1945271704 | -2.5885423456 |
| H                                            | -3.3287964104  | -3.5220094450 | -1.8983600927 | H                                           | 1.8368781682  | -0.9372800905 | -2.1698716665 |
|                                              |                |               |               | I                                           | -0.1676875687 | 3.4321923516  | -0.3599080667 |
|                                              |                |               |               | I                                           | -0.3388091994 | 6.2417122057  | -0.6487245584 |
| Ph <sub>2</sub> Te ···Cl <sub>2</sub> (MC) : |                |               |               | Ph <sub>2</sub> TeCl <sup>+</sup> (CI) :    |               |               |               |
| Te                                           | 0.0215969309   | 0.0481038342  | 0.4962079019  | Te                                          | 0.1217887651  | 0.1717608867  | -0.2628030151 |
| C                                            | 2.0500676887   | 0.0020032959  | -0.1016068399 | C                                           | 2.2090020046  | 0.0378121643  | -0.2607712098 |
| C                                            | -0.3275476550  | 2.0956831308  | 0.1361720629  | C                                           | -0.1604898774 | 2.2390739507  | -0.2445627786 |
| C                                            | 2.3980409574   | 0.4179224834  | -1.3838793009 | C                                           | 2.7875560677  | -0.3888373080 | -1.4536504066 |
| C                                            | 3.0153571016   | -0.4894589273 | 0.7693370869  | C                                           | 2.9705576442  | 0.3432468346  | 0.8622295922  |
| C                                            | -1.3883922123  | 2.4597361027  | -0.6874172671 | C                                           | -1.4674552729 | 2.6775756083  | -0.4621337463 |
| C                                            | 0.4632012886   | 3.0663264944  | 0.7434376413  | C                                           | 0.8928354269  | 3.1306418191  | -0.0606871392 |
| C                                            | 3.7235161885   | 0.3504245050  | -1.7881353114 | C                                           | 4.1703136731  | -0.4864506013 | -1.5239648099 |
| C                                            | 4.3381882490   | -0.5633513102 | 0.3492738321  | C                                           | 4.3498063310  | 0.2285570214  | 0.7741512591  |
| C                                            | -1.6547566243  | 3.8054681660  | -0.9076688127 | C                                           | -1.7189086538 | 4.0400890576  | -0.4796184739 |
| C                                            | 0.1947823659   | 4.4068111852  | 0.5087464953  | C                                           | 0.6216773706  | 4.4896576582  | -0.0872433612 |
| C                                            | 4.6931480066   | -0.1430750060 | -0.9241007387 | C                                           | 4.9454592863  | -0.1794117030 | -0.4141588691 |
| C                                            | -0.8626359074  | 4.7771440244  | -0.3133637893 | C                                           | -0.6773166806 | 4.9406823196  | -0.2922137282 |
| H                                            | 2.7482575018   | -0.7957943230 | 1.7740403651  | H                                           | 2.5077353070  | 0.6467277949  | 1.7941307534  |
| H                                            | 1.2741273553   | 2.7826562154  | 1.4043252171  | H                                           | 1.9069058074  | 2.7812089913  | 0.0916424758  |
| H                                            | 5.0923309172   | -0.9436613450 | 1.0292982904  | H                                           | 4.9602153013  | 0.4547280364  | 1.6406546261  |
| H                                            | 0.8093986886   | 5.1651581391  | 0.9809299945  | H                                           | 1.4292557044  | 5.1989586672  | 0.0509851623  |
| H                                            | 5.7274070966   | -0.1977274538 | -1.2451485555 | H                                           | 6.0241754762  | -0.2680464263 | -0.4712257851 |
| H                                            | -1.0712726419  | 5.8268856413  | -0.4871875457 | H                                           | -0.8789073491 | 6.0055284699  | -0.3116058592 |
| H                                            | 3.9970857929   | 0.6812637577  | -2.7840416684 | H                                           | 4.6370957482  | -0.8153700189 | -2.4448608171 |
| H                                            | 1.6456957921   | 0.7988269439  | -2.0657740201 | H                                           | 2.1866160645  | -0.6498193847 | -2.3192682348 |
| H                                            | -2.4824155175  | 4.0907197988  | -1.5475860296 | H                                           | -2.2834968999 | 1.9782175425  | -0.6138227716 |
| H                                            | -2.0056346718  | 1.7032635634  | -1.1600930689 | H                                           | -2.7286258547 | 4.3972896176  | -0.6438513996 |
| Cl                                           | 0.4974050730   | 0.2415367951  | 3.1144569325  | Cl                                          | -0.2657754488 | -0.2779683241 | 1.9665623126  |
| Cl                                           | 0.9684200712   | 0.4582726361  | 5.2917623159  |                                             |               |               |               |
| Ph <sub>2</sub> Te ···Br <sub>2</sub> (MC) : |                |               |               | Ph <sub>2</sub> TeBr <sup>+</sup> (CI) :    |               |               |               |
| Te                                           | -0.0017833057  | 0.0388936472  | -0.0046883571 | Te                                          | -0.0036235607 | -0.0131841653 | -0.0014052225 |
| C                                            | -0.0012593677  | 0.0161010267  | 2.1108469098  | C                                           | 0.0029709379  | 0.0017179152  | 2.0934145064  |
| C                                            | 2.0899438012   | 0.0076901024  | -0.2772651030 | C                                           | 2.0451467183  | 0.0040109540  | -0.4171271765 |
| C                                            | 0.6654173738   | -1.0037472895 | 2.7846897453  | C                                           | -0.4019852904 | -1.1842423672 | 2.7007784515  |
| C                                            | -0.7081451356  | 0.9838161034  | 2.8147771199  | C                                           | 0.3734795856  | 1.1199489597  | 2.8322307293  |
| C                                            | 2.6374505040   | -0.9427876306 | -1.1334676590 | C                                           | 2.4005027089  | -0.1927334001 | -1.7518294309 |
| C                                            | 2.9043916842   | 0.9399026257  | 0.3581676247  | C                                           | 3.0009602294  | 0.1539348807  | 0.5832921622  |
| C                                            | 0.6315870077   | -1.0432911648 | 4.1711058189  | C                                           | -0.4115441966 | -1.2522208883 | 4.0873610572  |
| C                                            | -0.7455340984  | 0.9273939405  | 4.2030054442  | C                                           | 0.3483167422  | 1.0343807965  | 4.2161955064  |
| C                                            | 4.0096452160   | -0.9604287683 | -1.3508005650 | C                                           | 3.7448968301  | -0.2234433305 | -2.0860009385 |
| C                                            | 4.2742257002   | 0.9064155309  | 0.1432505428  | C                                           | 4.3409565278  | 0.1134656203  | 0.2296091791  |
| C                                            | -0.0763617387  | -0.0812081071 | 4.8806534854  | C                                           | -0.0384299653 | -0.1469514445 | 4.8392991365  |
| C                                            | 4.8271359429   | -0.0403383095 | -0.7106857888 | C                                           | 4.7099295000  | -0.0702090344 | -1.0977442979 |
| H                                            | -1.2117605562  | 1.7886135361  | 2.2915196514  | H                                           | 0.6603155057  | 2.0469409346  | 2.3491366487  |
| H                                            | 2.4754417325   | 1.6935772183  | 1.0083776572  | H                                           | 2.7159520214  | 0.2906995625  | 1.6194096274  |
| H                                            | -1.2943216560  | 1.6841793907  | 4.7524723071  | H                                           | 0.6272084191  | 1.8977126382  | 4.8090801555  |
| H                                            | 4.9107043306   | 1.6316323033  | 0.6380357725  | H                                           | 5.0994751139  | 0.2250210682  | 0.9955590085  |
| H                                            | -0.1036842917  | -0.1180907344 | 5.9639913770  | H                                           | -0.0580716713 | -0.2016104437 | 5.9216043864  |
| H                                            | 5.8980510778   | -0.0573976983 | -0.8796020704 | H                                           | 5.7602753323  | -0.0992626314 | -1.3638782341 |
| H                                            | 1.1571283822   | -1.8327401017 | 4.6971416602  | H                                           | -0.7230936753 | -2.1680466623 | 4.5755634961  |
| H                                            | 1.2142244413   | -1.7621218078 | 2.2372955568  | H                                           | -0.7127488418 | -2.0465714748 | 2.1192939789  |
| H                                            | 4.4372056791   | -1.6993375143 | -2.0194629145 | H                                           | 1.6510824409  | -0.3184030798 | -2.5267340727 |
| H                                            | 2.0038159941   | -1.6710801865 | -1.6281959642 | H                                           | 4.0376323732  | -0.3720229815 | -3.1186371664 |
| Br                                           | -0.4291923982  | 2.8177971127  | -0.3730016736 | Br                                          | -0.5494806738 | 2.3560598804  | -0.4329226874 |
| Br                                           | -0.7563920045  | 5.2682067636  | -0.6470786730 |                                             |               |               |               |

**Ph<sub>2</sub>TeI<sup>+</sup> (CI) :**

|    |               |               |               |
|----|---------------|---------------|---------------|
| Te | -0.0173652641 | 0.0455091790  | -0.0093316088 |
| C  | -0.0093885176 | 0.0316137712  | 2.0909570976  |
| C  | 2.0403968161  | 0.0186339656  | -0.4140705872 |
| C  | -0.3953902861 | -1.1708625235 | 2.6776047037  |
| C  | 0.3524959962  | 1.1377685238  | 2.8508660607  |
| C  | 2.4044203276  | -0.1725909006 | -1.7462924895 |
| C  | 2.9877246419  | 0.1333102853  | 0.5975043136  |
| C  | -0.3948154922 | -1.2666624900 | 4.0627969612  |
| C  | 0.3401156258  | 1.0243752786  | 4.2331469917  |
| C  | 3.7515013850  | -0.2379414609 | -2.0655721226 |
| C  | 4.3307475052  | 0.0597589338  | 0.2584368522  |
| C  | -0.0284509361 | -0.1734033418 | 4.8350850210  |
| C  | 4.7099131691  | -0.1212943276 | -1.0659353789 |
| H  | 0.6257480984  | 2.0777840821  | 2.3851612811  |
| H  | 2.6949174903  | 0.2683100552  | 1.6316506000  |
| H  | 0.6146095926  | 1.8786510622  | 4.8410399664  |
| H  | 5.0826185515  | 0.1432000220  | 1.0344795971  |
| H  | -0.0389010603 | -0.2508458265 | 5.9161217084  |
| H  | 5.7618236884  | -0.1764894449 | -1.3213425482 |
| H  | -0.6921351783 | -2.1961653355 | 4.5338296358  |
| H  | -0.6978728567 | -2.0255734879 | 2.0809801530  |
| H  | 1.6607709229  | -0.2688907525 | -2.5307729485 |
| H  | 4.0510001639  | -0.3842611745 | -3.0966675271 |
| I  | -0.5893200855 | 2.6239050254  | -0.4978923499 |

**Ph<sub>2</sub>TeCl<sub>2</sub> (TB) :**

|    |              |               |               |
|----|--------------|---------------|---------------|
| Te | 0.2273741531 | 0.0000000019  | 0.0142121525  |
| C  | 1.6071973212 | -1.6123120760 | 0.1000933247  |
| C  | 1.6071518150 | 1.6123120759  | 0.1008214321  |
| C  | 1.3403301179 | -2.6703698996 | 0.9586331080  |
| C  | 1.4492711375 | 2.6703699002  | -0.7842674640 |
| C  | 2.2095351846 | -3.7532152243 | 0.9885236967  |
| C  | 2.3154328772 | 3.7532152224  | -0.7056879431 |
| C  | 3.3315453823 | 3.7664191975  | 0.2390782267  |
| H  | 4.0095110488 | 4.6110212101  | 0.2937370678  |
| C  | 3.4820125071 | 2.6993986470  | 1.1150180521  |
| H  | 4.2762579777 | 2.7067371557  | 1.8531818091  |
| C  | 2.6127307177 | 1.6190123106  | 1.0580716880  |
| H  | 2.7155698890 | 0.8003989422  | 1.7600219239  |
| C  | 2.7241505679 | -1.6190123137 | -0.7244868271 |
| H  | 2.9135994015 | -0.8003989457 | -1.4081674316 |
| C  | 3.5937575380 | -2.6993986526 | -0.6727429399 |
| H  | 4.4737405937 | -2.7067371636 | -1.3062580710 |
| C  | 3.3353854690 | -3.7664192025 | 0.1776421544  |
| H  | 4.0148805702 | -4.6110212169 | 0.2078321865  |
| H  | 0.6769554078 | 2.6486448922  | -1.5437063649 |
| H  | 2.1944180563 | 4.5841985569  | -1.3914722196 |
| H  | 0.4794568335 | -2.6486448893 | 1.6159885815  |
| H  | 2.0040652317 | -4.5841985584 | 1.6539008529  |
| Cl | 0.0929333411 | -0.0146354556 | 2.5035090874  |
| Cl | 0.4039585880 | 0.0146354594  | -2.4724505708 |

**Ph<sub>2</sub>TeBr<sub>2</sub> (TB) :**

|    |               |               |               |
|----|---------------|---------------|---------------|
| Te | -0.6883647745 | 0.0000000008  | -0.5902456629 |
| C  | -0.6875735361 | 0.0166500491  | 1.5333483983  |
| C  | 1.4104853703  | -0.0166500499 | -0.9134799934 |
| C  | -1.5925197873 | 0.8414378923  | 2.1880383519  |
| C  | 1.9194337342  | -0.8414378926 | -1.9077225274 |
| C  | -1.6444605540 | 0.8207956415  | 3.5754858497  |
| C  | 3.2827108678  | -0.8207956434 | -2.1707507757 |
| C  | 4.1223551739  | 0.0056522696  | -1.4375680304 |
| H  | 5.1872480565  | 0.0145487545  | -1.6420306656 |
| C  | 3.6012260133  | 0.8216881787  | -0.4420568303 |
| H  | 4.2549932938  | 1.4682702776  | 0.1326194876  |
| C  | 2.2381969774  | 0.8235840736  | -0.1810129694 |
| H  | 1.8304613660  | 1.4821649181  | 0.5764253707  |
| C  | 0.1626087930  | -0.8235840764 | 2.2396092920  |
| H  | 0.8489664945  | -1.4821649212 | 1.7210784126  |
| C  | 0.1125913244  | -0.8216881830 | 3.6265088207  |
| H  | 0.7802901924  | -1.4682702834 | 4.1849376408  |
| C  | -0.7917502021 | -0.0056522734 | 4.2934305211  |
| H  | -0.8313383194 | -0.0145487595 | 5.3770515810  |
| H  | 1.2717626437  | -1.5125470430 | -2.4595095044 |
| H  | 3.6859061276  | -1.4593884103 | -2.9486297767 |
| H  | -2.2366671681 | 1.5125470441  | 1.6321419054  |
| H  | -2.3517123452 | 1.4593884088  | 4.0926483591  |
| Br | -0.7214286781 | -2.6726401231 | -0.5880897383 |
| Br | -0.6912789538 | 2.6726401247  | -0.6232513756 |

**Ph<sub>2</sub>TeI<sub>2</sub> (TB) :**

|    |               |               |               |
|----|---------------|---------------|---------------|
| Te | 0.0072372469  | 0.0000000001  | 0.0062099998  |
| C  | 0.0091796888  | 0.0205445714  | 2.1304515756  |
| C  | 2.1071253659  | -0.0205445713 | -0.3145327832 |
| C  | -0.9496983544 | 0.7839444257  | 2.7829505620  |
| C  | 2.6064038837  | -0.7839444255 | -1.3613961891 |
| C  | -1.0088613804 | 0.7533233065  | 4.1699420903  |
| C  | 3.9683149462  | -0.7533233065 | -1.6305504595 |
| C  | 4.8159877317  | 0.0223350587  | -0.8524277411 |
| H  | 5.8796350534  | 0.0393823862  | -1.0625640668 |
| C  | 4.3046116507  | 0.7772259034  | 0.1949261758  |
| H  | 4.9644769499  | 1.3853424120  | 0.8035608112  |
| C  | 2.9431307149  | 0.7684628173  | 0.4639360050  |
| H  | 2.5436675352  | 1.3810422026  | 1.2632252854  |
| C  | 0.9056009936  | -0.7684628173 | 2.8385105011  |
| H  | 1.6349391206  | -1.3810422027 | 2.3222740416  |
| C  | 0.8465153984  | -0.7772259035 | 4.2250549537  |
| H  | 1.5483183336  | -1.3853424123 | 4.7848146991  |
| C  | -0.1110098990 | -0.0223350588 | 4.8895856364  |
| H  | -0.1571447044 | -0.0393823864 | 5.9728097499  |
| H  | 1.9525961174  | -1.4160110084 | -1.9513518646 |
| H  | 4.3638304861  | -1.3447176295 | -2.4486044415 |
| H  | -1.6321189579 | 1.4160110087  | 2.2263408117  |
| H  | -1.7573461025 | 1.3447176296  | 4.6851269896  |
| I  | -0.0322647063 | 2.9181589137  | -0.0957137987 |
| I  | -0.0995040534 | -2.9181589134 | -0.0173518312 |

(8-Me<sub>2</sub>NC<sub>10</sub>H<sub>6</sub>)<sub>2</sub>Te:

|    |               |               |               |
|----|---------------|---------------|---------------|
| Te | -0.0005367157 | -0.0000000004 | -0.0002580707 |
| N  | 0.0000475824  | -0.0004317124 | 2.8458704677  |
| N  | 2.2228862279  | 0.0004317113  | -1.7770074655 |
| C  | -0.6233455555 | -0.4004740553 | -2.0161296017 |
| C  | -1.9639965212 | 0.4004740547  | 0.7720465794  |
| C  | -1.3699568025 | -0.2759962457 | 3.1182175713  |
| C  | 1.5801407393  | 0.2759962449  | -3.0171539069 |
| C  | 0.2019924402  | -0.0689646781 | -3.1330587365 |
| C  | -2.3210439563 | 0.0689646775  | 2.1141459157  |
| C  | -0.3693787881 | -0.0860713962 | -4.4435972901 |
| C  | -3.7014621386 | 0.0860713958  | 2.4861970177  |
| C  | 0.9657135390  | -0.9392532586 | 3.3821596084  |
| H  | 1.9379979558  | -0.7483249954 | 2.9201372186  |
| H  | 1.0952012819  | -0.8575863689 | 4.4725347372  |
| H  | 0.6644070707  | -1.9581880983 | 3.1373268490  |
| C  | 0.3571115829  | 1.3834406517  | 3.1432603894  |
| H  | 0.3743067433  | 1.5783443730  | 4.2272975789  |
| H  | 1.3463925081  | 1.5995089195  | 2.7323838524  |
| H  | -0.3613093743 | 2.0603992178  | 2.6805091612  |
| C  | 3.2447617312  | 0.9392532573  | -1.3576183403 |
| H  | 4.1772894022  | 0.8575863675  | -1.9373399459 |
| H  | 2.8653828563  | 1.9581880971  | -1.4400824961 |
| H  | 3.4910074166  | 0.7483249939  | -0.3096847841 |
| C  | 2.6781331568  | -1.3834406529 | -1.6838103650 |
| H  | 3.5355916131  | -1.5783443743 | -2.3472840248 |
| H  | 2.9749410331  | -1.5995089208 | -0.6545381163 |
| H  | 1.8680837481  | -2.0603992188 | -1.9560002378 |
| C  | -1.7870177974 | -0.7740415525 | 4.3301979538  |
| H  | -1.0547720502 | -1.0482814477 | 5.0807925884  |
| C  | -3.1551090793 | -0.8761074560 | 4.6358728185  |
| H  | -3.4601144375 | -1.2734845929 | 5.5978962799  |
| C  | -4.0884259356 | -0.4139216598 | 3.7509242875  |
| H  | -5.1435863284 | -0.4243486921 | 4.0046151429  |
| C  | -4.6578617934 | 0.6003320604  | 1.5835077857  |
| H  | -5.7002361206 | 0.6288553327  | 1.8837507845  |
| C  | -4.2646577415 | 1.0713840657  | 0.3615916775  |
| H  | -4.9895542381 | 1.5060868569  | -0.3187283761 |
| C  | -2.9251091003 | 0.9506351271  | -0.0470448129 |
| H  | -2.6630105406 | 1.2612560534  | -1.0513678643 |
| C  | -1.8632693781 | -0.9506351274 | -2.2553721833 |
| H  | -2.4840654478 | -1.2612560536 | -1.4235232268 |
| C  | -2.3805443047 | -1.0713840658 | -3.5568332830 |
| H  | -3.3645761940 | -1.5060868567 | -3.6982247506 |
| C  | -1.6716564416 | -0.6003320605 | -4.6269577615 |
| H  | -2.0880311888 | -0.6288553327 | -5.6286174673 |
| C  | 0.3768446749  | 0.4139216594  | -5.5355801610 |
| H  | -0.0838750789 | 0.4243486919  | -6.5181583071 |
| C  | 1.6508518231  | 0.8761074553  | -5.3591714225 |
| H  | 2.2118162114  | 1.2734845922  | -6.1981209824 |
| C  | 2.2663710198  | 0.7740415516  | -4.0997084428 |
| H  | 3.3098821646  | 1.0482814466  | -3.9964581130 |

(8-Me<sub>2</sub>NC<sub>10</sub>H<sub>6</sub>)<sub>2</sub>Te ··· Cl<sub>2</sub> (MC) :

|    |               |               |               |
|----|---------------|---------------|---------------|
| Te | -0.0355449984 | 0.0197627103  | 0.0110062812  |
| C  | -0.0018151613 | 0.0122603564  | 2.1519390818  |
| C  | 1.2402703565  | -0.0103295719 | 2.8477430276  |
| C  | -1.1798894068 | -0.0083131417 | 2.8611777372  |
| C  | -1.1829179865 | -0.1470365278 | 4.2607225832  |
| C  | -0.0064929395 | -0.3241807553 | 4.9342985005  |
| C  | 1.2287181689  | -0.2703355508 | 4.2516888235  |
| C  | 2.4969116393  | 0.2127406071  | 2.2191994628  |
| C  | 3.6638182816  | -0.0080522815 | 2.9090195341  |
| C  | 3.6405717292  | -0.3816114274 | 4.2636674772  |
| C  | 2.4515096463  | -0.4685120353 | 4.9316051989  |
| N  | 2.4796554643  | 0.7481365471  | 0.8961356842  |
| C  | 3.5797951415  | 0.3403375449  | 0.0302131288  |
| C  | 2.3337423884  | 2.2054815486  | 0.9114082171  |
| H  | -2.1303613021 | 0.0401260320  | 2.3438479878  |
| H  | -2.1284236295 | -0.1572546832 | 4.7916390373  |
| H  | -0.0030707573 | -0.5004887488 | 6.0049617721  |
| H  | 4.6177400536  | 0.1370598664  | 2.4168060371  |
| H  | 4.5756913606  | -0.5567568534 | 4.7836186589  |
| H  | 2.4272387031  | -0.6968601456 | 5.9919334110  |
| H  | 3.7080813636  | -0.7394851020 | 0.0752233740  |
| H  | 3.3365964198  | 0.6129171845  | -0.9992297445 |
| H  | 4.5249349777  | 0.8363855005  | 0.2930745302  |
| H  | 1.4848406485  | 2.4931288542  | 1.5330577294  |
| H  | 2.1586984131  | 2.5626271949  | -0.1062870050 |
| H  | 3.2352075385  | 2.6959499915  | 1.3054732399  |
| C  | -1.8963868913 | -1.0275860490 | -0.1713073786 |
| C  | -2.8493251211 | -0.6754168842 | -1.1694298384 |
| C  | -2.1938421216 | -2.0175749878 | 0.7349598921  |
| C  | -3.4673159434 | -2.6123094547 | 0.7695459588  |
| C  | -4.4530866042 | -2.1672758052 | -0.0671199508 |
| C  | -4.1767549657 | -1.1907939888 | -1.0495709048 |
| C  | -2.5501758550 | 0.1412318714  | -2.2985591541 |
| C  | -3.5623209251 | 0.5833541179  | -3.1167541248 |
| C  | -4.8921608858 | 0.1778010142  | -2.9067726443 |
| C  | -5.1851867889 | -0.7248855872 | -1.9234403365 |
| N  | -1.1758503451 | 0.3924967769  | -2.5793700234 |
| C  | -0.5660763198 | -0.6907689278 | -3.3556157772 |
| C  | -0.8673562614 | 1.6964693087  | -3.1375107442 |
| H  | -1.4510391283 | -2.3336338828 | 1.4576858774  |
| H  | -3.6683491480 | -3.3977029533 | 1.4896063763  |
| H  | -5.4574988807 | -2.5732204904 | -0.0043339094 |
| H  | -3.3309997248 | 1.2144482669  | -3.9669367119 |
| H  | -5.6716117351 | 0.5424116610  | -3.5665937088 |
| H  | -6.1954099251 | -1.1012167258 | -1.8009546985 |
| H  | 0.5165439202  | -0.5514861238 | -3.3887494756 |
| H  | -0.7678070066 | -1.6515208301 | -2.8828135798 |
| H  | -0.9516131025 | -0.7152933700 | -4.3855564015 |
| H  | 0.2146355524  | 1.8486377658  | -3.1059805675 |
| H  | -1.3445710508 | 2.4775179001  | -2.5438812553 |
| H  | -1.1837852877 | 1.8065968221  | -4.1854606522 |
| Cl | 1.2794475730  | -2.1424691830 | -0.4020099812 |
| Cl | 2.4959152763  | -4.1325570654 | -0.7630568935 |

**(8-Me<sub>2</sub>NC<sub>10</sub>H<sub>6</sub>)<sub>2</sub>Te ··· Br<sub>2</sub> (MC) :**

|    |               |               |               |
|----|---------------|---------------|---------------|
| Te | 0.0197486713  | -0.0264544403 | -0.0122715287 |
| C  | 0.0025739134  | -0.0137923154 | 2.1298155573  |
| C  | 1.2244984844  | 0.0017851205  | 2.8619229616  |
| C  | -1.1937169513 | -0.0527746769 | 2.8066236817  |
| C  | -1.2348262104 | -0.1776684755 | 4.2068082919  |
| C  | -0.0754008169 | -0.3201245454 | 4.9164062193  |
| C  | 1.1769754960  | -0.2422903482 | 4.2684461673  |
| C  | 2.4950049274  | 0.2488383759  | 2.2698881446  |
| C  | 3.6450594564  | 0.0659716896  | 2.9986318180  |
| C  | 3.5895678931  | -0.2921577146 | 4.3563457046  |
| C  | 2.3826805666  | -0.4019581628 | 4.9877892384  |
| N  | 2.5078763945  | 0.7677593632  | 0.9410496074  |
| C  | 3.6479322820  | 0.3861610523  | 0.1181290552  |
| C  | 2.3131038012  | 2.2193450545  | 0.9314824385  |
| H  | -2.1295894317 | -0.0279403631 | 2.2625199462  |
| H  | -2.1953984395 | -0.2040489054 | 4.7094218502  |
| H  | -0.0981664866 | -0.4851241890 | 5.9885762515  |
| H  | 4.6101649430  | 0.2314564955  | 2.5353537341  |
| H  | 4.5122537385  | -0.4360476775 | 4.9072536071  |
| H  | 2.3310139901  | -0.6184140883 | 6.0496203933  |
| H  | 3.8029995781  | -0.6897317562 | 0.1763802161  |
| H  | 3.4350642611  | 0.6454602467  | -0.9214924759 |
| H  | 4.5712507394  | 0.9071262232  | 0.4095571260  |
| H  | 1.4315481862  | 2.4847678855  | 1.5163746709  |
| H  | 2.1643442263  | 2.5586565034  | -0.0963897473 |
| H  | 3.1819303566  | 2.7453178575  | 1.3528888641  |
| C  | -1.8696832307 | -1.0235209939 | -0.2309329386 |
| C  | -2.8306238097 | -0.5991668509 | -1.1933312859 |
| C  | -2.1820171073 | -2.0431082388 | 0.6371526169  |
| C  | -3.4719746904 | -2.6014811816 | 0.6710265180  |
| C  | -4.4585033898 | -2.0922365149 | -0.1272548709 |
| C  | -4.1705523540 | -1.0811179049 | -1.0703835740 |
| C  | -2.5303967941 | 0.2613496105  | -2.2897706734 |
| C  | -3.5459683093 | 0.7719593219  | -3.0631446171 |
| C  | -4.8825894327 | 0.3949537784  | -2.8448089431 |
| C  | -5.1821730476 | -0.5461405954 | -1.9002626270 |
| N  | -1.1577405743 | 0.4877590884  | -2.5901831692 |
| C  | -0.5884666079 | -0.5787636182 | -3.4158324733 |
| C  | -0.8209421501 | 1.8040197122  | -3.0980189939 |
| H  | -1.4366658191 | -2.4110553981 | 1.3326774675  |
| H  | -3.6838160471 | -3.4100558915 | 1.3618162616  |
| H  | -5.4733722169 | -2.4710410813 | -0.0631320267 |
| H  | -3.3133528641 | 1.4371907199  | -3.8865839115 |
| H  | -5.6640106759 | 0.8131959946  | -3.4695991457 |
| H  | -6.2001016255 | -0.9000281952 | -1.7745033875 |
| H  | 0.4969684851  | -0.4659544845 | -3.4608215841 |
| H  | -0.8106508629 | -1.5520236610 | -2.9786752072 |
| H  | -0.9877932805 | -0.5542605080 | -4.4409337812 |
| H  | 0.2647865149  | 1.9276944078  | -3.0659866998 |
| H  | -1.2748741919 | 2.5719473827  | -2.4701078724 |
| H  | -1.1404920603 | 1.9646132162  | -4.1387652842 |
| Br | 1.4046889786  | -2.4042286748 | -0.4057114683 |
| Br | 2.6554092752  | -4.6067251883 | -0.7510838378 |

**(8-Me<sub>2</sub>NC<sub>10</sub>H<sub>6</sub>)<sub>2</sub>Te ··· I<sub>2</sub> (MC) :**

|    |               |               |               |
|----|---------------|---------------|---------------|
| Te | 0.0777456932  | -0.1509599988 | -0.0449791617 |
| C  | 0.0390277279  | -0.0911554059 | 2.0992700486  |
| C  | 1.2520664129  | -0.0144451196 | 2.8432148237  |
| C  | -1.1600471817 | -0.1644756966 | 2.7686601277  |
| C  | -1.2082322924 | -0.2696490799 | 4.1702607127  |
| C  | -0.0511933143 | -0.3591315760 | 4.8919740284  |
| C  | 1.2022983225  | -0.2419415039 | 4.2523920857  |
| C  | 2.5173635278  | 0.2801943135  | 2.2608234640  |
| C  | 3.6674632667  | 0.1516409015  | 3.0014777552  |
| C  | 3.6143718196  | -0.1959712831 | 4.3620430898  |
| C  | 2.4069035745  | -0.3460210410 | 4.9838508187  |
| N  | 2.5210719984  | 0.7908454356  | 0.9293757463  |
| C  | 3.6887545404  | 0.4651952097  | 0.1232702730  |
| C  | 2.2501906788  | 2.2297865078  | 0.9047444956  |
| H  | -2.0926043578 | -0.1836464689 | 2.2190516287  |
| H  | -2.1718167322 | -0.3236299362 | 4.6650017588  |
| H  | -0.0773600321 | -0.5107390040 | 5.9660316380  |
| H  | 4.6291040663  | 0.3545027682  | 2.5457892548  |
| H  | 4.5369495702  | -0.2978967726 | 4.9224599312  |
| H  | 2.3535862978  | -0.5523716688 | 6.0476273858  |
| H  | 3.8959040200  | -0.6021385435 | 0.1852176795  |
| H  | 3.4775948878  | 0.7140820104  | -0.9193702227 |
| H  | 4.5833027080  | 1.0290863112  | 0.4251257464  |
| H  | 1.3493606228  | 2.4531984803  | 1.4772019532  |
| H  | 2.0954360131  | 2.5518622537  | -0.1276775623 |
| H  | 3.0861384362  | 2.8034466760  | 1.3307871037  |
| C  | -1.8012638229 | -1.1720066795 | -0.2638558943 |
| C  | -2.7646752033 | -0.7620691689 | -1.2302729771 |
| C  | -2.1116406208 | -2.1810621422 | 0.6171427131  |
| C  | -3.4011582121 | -2.7398871843 | 0.6616874260  |
| C  | -4.3901076419 | -2.2405839882 | -0.1395351565 |
| C  | -4.1045561510 | -1.2413541065 | -1.0963852968 |
| C  | -2.4676723571 | 0.0841988301  | -2.3391210566 |
| C  | -3.4864790255 | 0.5892895967  | -3.1122126053 |
| C  | -4.8226528560 | 0.2176597146  | -2.8824239977 |
| C  | -5.1191958052 | -0.7135466138 | -1.9270571484 |
| N  | -1.0964858112 | 0.3011816301  | -2.6501678491 |
| C  | -0.5289255077 | -0.7872498184 | -3.4467242559 |
| C  | -0.7596235932 | 1.6023088720  | -3.1950057522 |
| H  | -1.3651090730 | -2.5352382261 | 1.3186837122  |
| H  | -3.6110484511 | -3.5392706294 | 1.3637353557  |
| H  | -5.4051260909 | -2.6175793410 | -0.0672053797 |
| H  | -3.2568289047 | 1.2447717831  | -3.9441741870 |
| H  | -5.6065294358 | 0.6314750990  | -3.5071273852 |
| H  | -6.1372064931 | -1.0639935591 | -1.7924606212 |
| H  | 0.5564726528  | -0.6756235728 | -3.4960557809 |
| H  | -0.7514011092 | -1.7479967277 | -2.9827483969 |
| H  | -0.9293184967 | -0.7915066487 | -4.4718853347 |
| H  | 0.3267874154  | 1.7221051138  | -3.1773467475 |
| H  | -1.2041053743 | 2.3880219730  | -2.5826097166 |
| H  | -1.0883745825 | 1.7372560764  | -4.2366999520 |
| I  | 1.6371219999  | -2.7642018490 | -0.4003709442 |
| I  | 3.0422895349  | -5.2479835879 | -0.7290281088 |

**(8-Me<sub>2</sub>NC<sub>10</sub>H<sub>6</sub>)<sub>2</sub>TeCl<sup>+</sup> (CI) :**

|    |               |               |               |
|----|---------------|---------------|---------------|
| Te | -0.0118220481 | -1.0608675528 | 0.3293194958  |
| N  | -1.0754692504 | 0.7846216273  | 1.6873001966  |
| N  | 2.7073183179  | -1.0412593971 | 0.9093377757  |
| C  | -1.9862584796 | -0.8693335549 | -0.4583563822 |
| C  | 0.8917946576  | 0.4382554174  | -0.8542207138 |
| C  | -2.3533440734 | 1.0691930226  | 1.0612740690  |
| C  | -0.2155127641 | 1.9705351010  | 1.8306845842  |
| C  | -1.2823998976 | 0.1299869257  | 2.9962748926  |
| C  | 2.7769509550  | -0.9641277577 | 2.3689747460  |
| C  | 3.1450963092  | 0.1588717995  | 0.2472106719  |
| C  | 3.4317298118  | -2.2247489524 | 0.4241823953  |
| C  | -2.7934919377 | 0.1808461690  | 0.0541667896  |
| C  | -2.4759906009 | -1.7244694797 | -1.4127972184 |
| C  | 2.2476147733  | 0.8145775763  | -0.6376742892 |
| C  | 0.1101973900  | 1.0765439329  | -1.7850236170 |
| C  | -3.1417531486 | 2.1139553663  | 1.4712992402  |
| C  | 4.4193190273  | 0.6408071959  | 0.4225565341  |
| C  | -4.1007587873 | 0.3641628178  | -0.4873202764 |
| C  | -3.7821997677 | -1.5630498445 | -1.9128528852 |
| C  | 2.7383180549  | 1.9373057035  | -1.3789841307 |
| C  | 0.6234981843  | 2.1442467978  | -2.5404556978 |
| C  | -4.4155660016 | 2.3089513398  | 0.9106615720  |
| C  | 4.8788755491  | 1.7688518013  | -0.2741288466 |
| C  | -4.8900528954 | 1.4442547425  | -0.0369422855 |
| C  | -4.5684646278 | -0.5362506516 | -1.4704643476 |
| C  | 1.9024221843  | 2.5736071505  | -2.3237622637 |
| C  | 4.0572370194  | 2.3941644267  | -1.1693452150 |
| H  | -1.8591081428 | -2.5238900694 | -1.8030977359 |
| H  | 3.3780413644  | -2.2735902703 | -0.6617993578 |
| H  | 0.7740205208  | 1.6604684261  | 2.1683505903  |
| H  | -0.6194162439 | 2.6702741445  | 2.5684464315  |
| H  | -0.1213837010 | 2.4735351474  | 0.8704581783  |
| H  | -0.3179803369 | -0.1592232092 | 3.4174027866  |
| H  | -1.8997573766 | -0.7604171923 | 2.8699595732  |
| H  | -1.7858655808 | 0.8071372579  | 3.6925144931  |
| H  | 2.2779596957  | -1.8362268040 | 2.7988084511  |
| H  | 2.2787100149  | -0.0603554951 | 2.7240235524  |
| H  | 3.8085736930  | -0.9488599633 | 2.7416911079  |
| H  | 2.9724331068  | -3.1251750187 | 0.8353061488  |
| H  | 4.4863875835  | -2.2016098056 | 0.7269178506  |
| H  | -0.9145002604 | 0.7653447413  | -1.9466592890 |
| H  | -2.7999966908 | 2.7924587028  | 2.2443478846  |
| H  | 5.0949149633  | 0.1279111848  | 1.0983139361  |
| H  | -4.1493025030 | -2.2528880643 | -2.6636235825 |
| H  | -0.0054150307 | 2.6258104865  | -3.2797793625 |
| H  | -5.0227093445 | 3.1405204029  | 1.2480611240  |
| H  | 5.8903660916  | 2.1231742426  | -0.1140813445 |
| H  | -5.8799930484 | 1.5796226700  | -0.4586207679 |
| H  | -5.5668723299 | -0.3966127331 | -1.8712709806 |
| H  | 2.3021581974  | 3.4118255830  | -2.8844675938 |
| H  | 4.4078472887  | 3.2488076010  | -1.7374594146 |
| Cl | 0.5512302868  | -2.8453369007 | -1.1567949560 |

**(8-Me<sub>2</sub>NC<sub>10</sub>H<sub>6</sub>)<sub>2</sub>TeBr<sup>+</sup> (CI) :**

|    |               |               |               |
|----|---------------|---------------|---------------|
| Te | 0.0082388441  | -0.0017143592 | 0.0042778195  |
| N  | -0.0067920886 | 0.0013961622  | 2.5424555465  |
| N  | 2.7218213974  | -0.0000581392 | -0.6760780544 |
| C  | -2.0216855133 | 0.3991203436  | 0.5433579209  |
| C  | 0.7047807928  | 1.9923675435  | 0.0965241866  |
| C  | -1.3332415954 | 0.4330404267  | 2.9397498969  |
| C  | 1.0710195578  | 0.8146714311  | 3.1271975857  |
| C  | 0.1836047512  | -1.4287808097 | 2.8598457404  |
| C  | 3.3250300206  | -1.0411643215 | 0.1562510689  |
| C  | 3.1103072667  | 1.3347825156  | -0.3060244673 |
| C  | 2.9891401787  | -0.2644503731 | -2.0968172249 |
| C  | -2.3113212056 | 0.5500029095  | 1.9267039205  |
| C  | -3.0211040390 | 0.4899622185  | -0.3914016228 |
| C  | 2.0962006260  | 2.2815839562  | 0.0030863595  |
| C  | -0.2197707056 | 2.9812300566  | 0.3266941770  |
| C  | -1.6518746492 | 0.6519569035  | 4.2558998544  |
| C  | 4.4316152922  | 1.7106447277  | -0.3028584314 |
| C  | -3.6515302988 | 0.8524487805  | 2.3141120811  |
| C  | -4.3477768429 | 0.7505728104  | 0.0010587101  |
| C  | 2.4964323119  | 3.6363927043  | 0.2389937962  |
| C  | 0.1866562418  | 4.3148931918  | 0.5002387710  |
| C  | -2.9663707312 | 0.9797884908  | 4.6275040856  |
| C  | 4.8189743283  | 3.0300062029  | -0.0245946712 |
| C  | -3.9470278707 | 1.0645290788  | 3.6779563236  |
| C  | -4.6516587182 | 0.9395138618  | 1.3199507161  |
| C  | 1.5167931129  | 4.6261882500  | 0.4769485119  |
| C  | 3.8660831914  | 3.9774520539  | 0.2239389828  |
| H  | -2.7982163395 | 0.3753691113  | -1.4449227880 |
| H  | 2.5450726736  | 0.5177345898  | -2.7097796521 |
| H  | 2.0212711045  | 0.5418017467  | 2.6673131654  |
| H  | 1.1568713227  | 0.6484648974  | 4.2052851115  |
| H  | 0.8771730660  | 1.8687595253  | 2.9395827035  |
| H  | 1.1486460888  | -1.7632458600 | 2.4762196613  |
| H  | -0.6088377530 | -2.0180519083 | 2.3965230391  |
| H  | 0.1540125657  | -1.5936719432 | 3.9410006549  |
| H  | 2.8642738401  | -2.0033158416 | -0.0806176052 |
| H  | 3.1632624940  | -0.8219804606 | 1.2128460568  |
| H  | 4.4056771858  | -1.1395492946 | -0.0060228057 |
| H  | 2.5447526702  | -1.2205235541 | -2.3780500824 |
| H  | 4.0667783180  | -0.3057315475 | -2.3015008260 |
| H  | -1.2758869554 | 2.7459773936  | 0.3809770418  |
| H  | -0.8956991733 | 0.5576659155  | 5.0266275639  |
| H  | 5.1946458820  | 0.9783967190  | -0.5429081159 |
| H  | -5.1201364538 | 0.8137484486  | -0.7564048050 |
| H  | -0.5597672784 | 5.0825792553  | 0.6663201239  |
| H  | -3.1973548995 | 1.1489542018  | 5.6724689991  |
| H  | 5.8698947931  | 3.2942053132  | -0.0325408416 |
| H  | -4.9674821158 | 1.2990933080  | 3.9603900864  |
| H  | -5.6691818475 | 1.1610273326  | 1.6235871595  |
| H  | 1.8436119722  | 5.6484121170  | 0.6352052213  |
| H  | 4.1467416649  | 5.0084482304  | 0.4095243627  |
| Br | -0.4492238389 | 0.0320537498  | -2.5120499542 |



**(8-Me<sub>2</sub>NC<sub>10</sub>H<sub>6</sub>)<sub>2</sub>TeI<sup>+</sup> (CI) :**

|    |               |               |               |
|----|---------------|---------------|---------------|
| Te | 0.0000000000  | 0.0000000000  | 0.0000000000  |
| C  | 0.0000000000  | 0.0000000000  | 2.1451527500  |
| C  | 1.2610889638  | 0.0000000000  | 2.8036701391  |
| C  | -1.1619275408 | -0.0100279761 | 2.8734009898  |
| C  | -1.1320808835 | 0.0014425279  | 4.2804691597  |
| C  | 0.0623179004  | 0.0521845463  | 4.9412458985  |
| C  | 1.2831478993  | 0.0601015962  | 4.2303440741  |
| C  | 2.4975735835  | -0.0394982135 | 2.1193749308  |
| C  | 3.6840905549  | 0.0411559001  | 2.8041464142  |
| C  | 3.6973131270  | 0.1403865530  | 4.2049972550  |
| C  | 2.5217259715  | 0.1328805475  | 4.9031882558  |
| N  | 2.4650892211  | -0.2441401168 | 0.6863045750  |
| C  | 3.3692804279  | 0.6479405368  | -0.0532479723 |
| C  | 2.7373772819  | -1.6581417425 | 0.3617519134  |
| H  | -2.1231990579 | -0.0103324738 | 2.3738290615  |
| H  | -2.0664304352 | -0.0116461439 | 4.8292053418  |
| H  | 0.0910801874  | 0.0876934581  | 6.0249952138  |
| H  | 4.6274155703  | 0.0101918643  | 2.2715232244  |
| H  | 4.6455186029  | 0.2035436795  | 4.7254665280  |
| H  | 2.5242859569  | 0.1855895674  | 5.9864002840  |
| H  | 3.1992656448  | 1.6782040559  | 0.2531989427  |
| H  | 4.4186551046  | 0.3881946392  | 0.1188828744  |
| H  | 3.1727373168  | 0.5596242402  | -1.1218660414 |
| H  | 2.0406694958  | -2.3013716150 | 0.9009281115  |
| H  | 3.7573660237  | -1.9329293287 | 0.6479537192  |
| H  | 2.6145870107  | -1.8179134947 | -0.7106973464 |
| C  | 0.3984817705  | 2.0618334100  | -0.2586726293 |
| C  | 0.7773302127  | 2.5797876117  | -1.5304843477 |
| C  | 0.3657707501  | 2.8566722773  | 0.8603117737  |
| C  | 0.7323185315  | 4.2107515750  | 0.7885852345  |
| C  | 1.1633704981  | 4.7325117727  | -0.3980447392 |
| C  | 1.2067531030  | 3.9461772902  | -1.5711260151 |
| C  | 0.7650135186  | 1.8521849998  | -2.7519728490 |
| C  | 1.2280236983  | 2.4337659814  | -3.9074514273 |
| C  | 1.6949478446  | 3.7567348341  | -3.9284447995 |
| C  | 1.6650031104  | 4.5030405647  | -2.7843421530 |
| N  | 0.1996738352  | 0.5289193016  | -2.7650900240 |
| C  | -1.0777316507 | 0.5024439303  | -3.4907580906 |
| C  | 1.0987055139  | -0.4974011016 | -3.2928412031 |
| H  | 0.0592780248  | 2.4473628341  | 1.8153097881  |
| H  | 0.6858302253  | 4.8243737687  | 1.6803845758  |
| H  | 1.4762804053  | 5.7693341819  | -0.4603418734 |
| H  | 1.2095387396  | 1.8681014068  | -4.8324844589 |
| H  | 2.0514488308  | 4.1857848303  | -4.8574775508 |
| H  | 1.9901484763  | 5.5376186719  | -2.7906470431 |
| H  | -1.7417759861 | 1.2725325615  | -3.1020967972 |
| H  | -1.5536395404 | -0.4696126663 | -3.3517218435 |
| H  | -0.9322419063 | 0.6709766193  | -4.5658234189 |
| H  | 2.0635786989  | -0.4533234444 | -2.7862446988 |
| H  | 0.6572529211  | -1.4827539738 | -3.1249233777 |
| H  | 1.2773451657  | -0.3909879415 | -4.3702467438 |
| I  | -2.7619520543 | 0.2035477348  | -0.2712789419 |

**(8-Me<sub>2</sub>NC<sub>10</sub>H<sub>6</sub>)<sub>2</sub>TeCl<sub>2</sub> (TB) :**

|    |               |               |               |
|----|---------------|---------------|---------------|
| Te | 0.0019986105  | 0.0000000007  | 0.0001209573  |
| N  | -1.1649622559 | 2.4619045138  | -0.7681283863 |
| N  | -1.2490955783 | -2.4619045108 | 0.6220277477  |
| C  | 1.4411966827  | -1.6011506628 | 0.0355264698  |
| C  | 1.4349621735  | 1.6011506624  | 0.1385408779  |
| C  | -0.0127300144 | 3.2163707445  | -1.1282999724 |
| C  | -0.1487098681 | -3.2163707430 | 1.1185295062  |
| C  | 1.1559132758  | -2.8228945968 | 0.7037097149  |
| C  | 1.2323437658  | 2.8228945966  | -0.5591705607 |
| C  | 2.2394538248  | -3.7165186516 | 0.9622573007  |
| C  | 2.3391565674  | 3.7165186501  | -0.6851562757 |
| C  | -2.2046200982 | 2.3603386969  | -1.7784444591 |
| H  | -2.9187251108 | 1.5917809996  | -1.4718973307 |
| H  | -2.7651734985 | 3.2980065735  | -1.9100117694 |
| H  | -1.7640016221 | 2.0606508913  | -2.7282269238 |
| C  | -1.7113752875 | 2.8776502609  | 0.5254451450  |
| H  | -2.1754767550 | 3.8729404928  | 0.4666304777  |
| H  | -2.4676279720 | 2.1578880866  | 0.8477615829  |
| H  | -0.9238768273 | 2.9038448765  | 1.2787331225  |
| C  | -2.4030091001 | -2.3603386926 | 1.4995871931  |
| H  | -2.9753381308 | -3.2980065684 | 1.5625915866  |
| H  | -2.0801501925 | -2.0606508874 | 2.4955758967  |
| H  | -3.0749324810 | -1.5917809943 | 1.1091565594  |
| C  | -1.6355157314 | -2.8776502573 | -0.7280015660 |
| H  | -2.1033228572 | -3.8729404886 | -0.7255867241 |
| H  | -2.3473773815 | -2.1578880821 | -1.1391694135 |
| H  | -0.7629186722 | -2.9038448740 | -1.3808192848 |
| C  | -0.0814287366 | 4.3281918707  | -1.9319420782 |
| H  | -1.0264607364 | 4.6113700224  | -2.3797197926 |
| C  | 1.0474107712  | 5.1382124586  | -2.1469053594 |
| H  | 0.9644707193  | 6.0085772920  | -2.7883839510 |
| C  | 2.2206176587  | 4.8628030363  | -1.5035809999 |
| H  | 3.0794496877  | 5.5169491003  | -1.6118666285 |
| C  | 3.5342045655  | 3.4410702974  | 0.0150086372  |
| H  | 4.3603783061  | 4.1394276185  | -0.0720772521 |
| C  | 3.6433047999  | 2.3276835856  | 0.8002504650  |
| H  | 4.5485482614  | 2.1375244108  | 1.3660913884  |
| C  | 2.5962145854  | 1.3897300412  | 0.8378277097  |
| H  | 2.7259217202  | 0.4825690961  | 1.4145232802  |
| C  | 2.6783072131  | -1.3897300432 | -0.5186095907 |
| H  | 2.8766170203  | -0.4825690984 | -1.0754533234 |
| C  | 3.7132231227  | -2.3276835889 | -0.3550277327 |
| H  | 4.6800997078  | -2.1375244154 | -0.8075665098 |
| C  | 3.5102191710  | -3.4410703005 | 0.4113253095  |
| H  | 4.3198602974  | -4.1394276227 | 0.5974119738  |
| C  | 2.0230782388  | -4.8628030377 | 1.7604127419  |
| H  | 2.8625826030  | -5.5169491027 | 1.9714829964  |
| C  | 0.7808495495  | -5.1382124584 | 2.2575530811  |
| H  | 0.6211526618  | -6.0085772916 | 2.8843470983  |
| C  | -0.3138262599 | -4.3281918690 | 1.9080209413  |
| H  | -1.3059625744 | -4.6113700195 | 2.2385597382  |
| Cl | 0.0069892265  | 0.0047119483  | 2.5238580782  |
| Cl | 0.3113150205  | -0.0047119471 | -2.5045940604 |



**(8-Me<sub>2</sub>NC<sub>10</sub>H<sub>6</sub>)<sub>2</sub>TeBr<sub>2</sub> (TB) :**

|    |               |               |               |
|----|---------------|---------------|---------------|
| Te | -0.0332204685 | 0.0000000000  | -0.0157203584 |
| N  | 0.0029094895  | 0.0235224916  | 2.8140680913  |
| N  | 2.1778729648  | -0.0235224919 | -1.7820934427 |
| C  | -0.6678236866 | -0.4631172109 | -2.0231591702 |
| C  | -1.9878971470 | 0.4631172112  | 0.7664374966  |
| C  | -1.3720220951 | -0.1985679235 | 3.1123509025  |
| C  | 1.5367093330  | 0.1985679234  | -3.0344187578 |
| C  | 0.1585821334  | -0.1467812737 | -3.1366762822 |
| C  | -2.3249369276 | 0.1467812739  | 2.1115289895  |
| C  | -0.4248268417 | -0.1924764250 | -4.4395711029 |
| C  | -3.7023512288 | 0.1924764254  | 2.4865367078  |
| C  | 0.9470593965  | -0.8907621424 | 3.4360339557  |
| H  | 1.9240181390  | -0.7627464116 | 2.9629786316  |
| H  | 1.0746178052  | -0.7034709626 | 4.5127619383  |
| C  | 0.6216423563  | -1.9182224562 | 3.2798527485  |
| C  | 0.3900719321  | 1.4192522671  | 3.0390870972  |
| H  | 0.4028178431  | 1.6640220004  | 4.1111388907  |
| H  | 1.3883782738  | 1.5899198804  | 2.6293407224  |
| H  | -0.3033750767 | 2.0919112874  | 2.5347506866  |
| C  | 3.2574853375  | 0.8907621418  | -1.4463886489 |
| H  | 4.1709665566  | 0.7034709618  | -2.0304831264 |
| H  | 2.9303751295  | 1.9182224557  | -1.5989918308 |
| H  | 3.5111565477  | 0.7627464108  | -0.3909832096 |
| C  | 2.5973647248  | -1.4192522675 | -1.6253931781 |
| H  | 3.4344297315  | -1.6640220010 | -2.2953033817 |
| H  | 2.9135267820  | -1.5899198810 | -0.5936232438 |
| H  | 1.7676770171  | -2.0919112876 | -1.8418239450 |
| C  | -1.7941626555 | -0.6536467818 | 4.3376631352  |
| H  | -1.0648376497 | -0.9334162633 | 5.0883177362  |
| C  | -3.1618986356 | -0.7117982309 | 4.6557936950  |
| H  | -3.4660850802 | -1.0851523500 | 5.6296883844  |
| C  | -4.0934011942 | -0.2644654125 | 3.7656664465  |
| H  | -5.1469788340 | -0.2497301507 | 4.0243327836  |
| C  | -4.6529661008 | 0.6985994993  | 1.5733141772  |
| H  | -5.6929946132 | 0.7474138226  | 1.8794521917  |
| C  | -4.2698187367 | 1.1354941621  | 0.3362790709  |
| H  | -4.9951203887 | 1.5595233332  | -0.3491820598 |
| C  | -2.9336699858 | 0.9898607787  | -0.0765186008 |
| H  | -2.6619305636 | 1.2873240904  | -1.0813721213 |
| C  | -1.9193497487 | -0.9898607781 | -2.2199935194 |
| H  | -2.5240661425 | -1.2873240898 | -1.3727090369 |
| C  | -2.4473713265 | -1.1354941613 | -3.5149408604 |
| H  | -3.4373153204 | -1.5595233322 | -3.6411563000 |
| C  | -1.7337579055 | -0.6985994986 | -4.5955951262 |
| H  | -2.1564921456 | -0.7474138216 | -5.5939315188 |
| C  | 0.3163261226  | 0.2644654130  | -5.5530275445 |
| H  | -0.1517076606 | 0.2497301513  | -6.5317402168 |
| C  | 1.5952796208  | 0.7179823100  | -5.3971382091 |
| H  | 2.1554825528  | 1.0851523501  | -6.2498825635 |
| C  | 2.2165330423  | 0.6536467817  | -4.1377919698 |
| H  | 3.2594401713  | 0.9334162630  | -4.0498032518 |
| Br | -0.4604272034 | -2.6123691413 | 0.5458103473  |
| Br | 0.1301100317  | 2.6123691413  | -0.7021207338 |

**(8-Me<sub>2</sub>NC<sub>10</sub>H<sub>6</sub>)<sub>2</sub>TeI<sub>2</sub> (TB) :**

|    |               |               |               |
|----|---------------|---------------|---------------|
| Te | -0.0308028702 | -0.0000000009 | -0.0150599471 |
| N  | 0.0003750805  | 0.0324274342  | 2.8236859876  |
| N  | 2.2286373060  | -0.0324274412 | -1.7338911303 |
| C  | -0.6240720426 | -0.4261063740 | -2.0469834351 |
| C  | -1.9987243059 | 0.4261063781  | 0.7646621767  |
| C  | -1.3723365656 | -0.2169857208 | 3.1162783114  |
| C  | 1.6164856295  | 0.2169857184  | -2.9969104705 |
| C  | 0.2365459867  | -0.1088613634 | -3.1352548785 |
| C  | -2.3290156115 | 0.1088613663  | 2.1122176596  |
| C  | -0.3151608832 | -0.1329766738 | -4.4528600250 |
| C  | -3.7076828706 | 0.1329766811  | 2.4860363069  |
| C  | 0.9600512595  | -0.8612192847 | 3.4537151070  |
| C  | 0.3543587036  | 1.4346798191  | 3.0698336875  |
| C  | 3.3152380741  | 0.8612192731  | -1.3634672663 |
| C  | 2.6402946508  | -1.4346798278 | -1.6057064155 |
| C  | -1.7892605377 | -0.6754697475 | 4.3422344609  |
| C  | -3.1558903561 | -0.7629035930 | 4.6585023383  |
| C  | -4.0930977610 | -0.3273308067 | 3.7656220175  |
| C  | -4.6670307319 | 0.6214164632  | 1.5724513906  |
| C  | -4.2916505803 | 1.0628765199  | 0.3348036296  |
| C  | -2.9537149295 | 0.9374182993  | -0.0777526951 |
| C  | -1.8754065150 | -0.9374182901 | -2.2832712911 |
| C  | -2.3715266304 | -1.0628765065 | -3.5925227409 |
| C  | -1.6253376233 | -0.6214164507 | -4.6488769451 |
| C  | 0.4579619629  | 0.3273308132  | -5.5428899760 |
| C  | 1.7382012524  | 0.7629035944  | -5.3516300665 |
| C  | 2.3279333702  | 0.6754697444  | -4.0788698929 |
| H  | 1.9381992718  | -0.7067867337 | 2.9913651945  |
| H  | 1.0714741160  | -0.6730316888 | 4.5319808137  |
| H  | 0.6627536713  | -1.8963441389 | 3.2913838789  |
| H  | 0.3451950321  | 1.6650205108  | 4.1452693123  |
| H  | 1.3550202413  | 1.6311673514  | 2.6786730017  |
| H  | -0.3450866353 | 2.0986611390  | 2.5628399465  |
| H  | 4.2346189424  | 0.6730316748  | -1.9377588343 |
| H  | 3.0045414586  | 1.8963441287  | -1.4983927784 |
| H  | 3.5510957247  | 0.7067867194  | -0.3075732643 |
| H  | 3.4833829777  | -1.6650205214 | -2.2734247905 |
| H  | 2.9461605227  | -1.6311673630 | -0.5757664840 |
| H  | 1.8106140480  | -2.0986611442 | -1.8463234085 |
| H  | -1.0567590816 | -0.9411558055 | 5.0948450173  |
| H  | -3.4552963939 | -1.1329862872 | 5.6327385830  |
| H  | -5.1472652489 | -0.3294000148 | 4.0221742407  |
| H  | -5.7073990179 | 0.6540318953  | 1.8794252801  |
| H  | -5.0231995673 | 1.4757125146  | -0.3507952442 |
| H  | -2.6874499430 | 1.2400907077  | -1.0825953318 |
| H  | -2.5048833794 | -1.2400906976 | -1.4560079442 |
| H  | -3.3618761789 | -1.4757124973 | -3.7487837771 |
| H  | -2.0220285294 | -0.6540318795 | -5.6584488666 |
| H  | 0.0130042205  | 0.3294000247  | -6.5323851723 |
| H  | 2.3231702355  | 1.1329862879  | -6.1862506541 |
| H  | 3.3717524112  | 0.9411557984  | -3.9630128926 |
| I  | -0.4389415583 | -2.8765424947 | 0.5413293695  |
| I  | 0.1576291961  | 2.8765424935  | -0.6788668571 |

