Supporting Information

Synthesis of New Heteroleptic Strontium Complexes

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Figure S1. Crystal structure of complex 1 & 2.
Figure S2. Crystal structure of complex 4 & 5.
Figure S3. Sr₄O₄ core of complex 7.
Figure S4. TGA plots of [Sr(bdmadmaeh)(tmhd)]₂ (4) and [Sr(bdmadmaph)(tmhd)]₂ (5).
Figure S5. TGA plots of [Sr(dmaemp)(tmhd)]₂ (6), [Sr(dmapmp)(tmhd)]₂ (7), [Sr(dmamemp)(tmhd)]₂ (8), and [Sr(dmaeemp)(tmhd)]₂ (9).
Table S6. Crystallographic data and data collection parameters for 1, 2, 4, 5, and 7.
Figure S1. Crystal structure of complex 1 (above) & 2 (below) (disorders included).
Figure S2. Crystal structure of complex 4 (disorders included) & 5.
Figure S3. Sr₄O₄ core of complex 7.
Figure S4. TGA plots of [Sr(bdmadmaeh)(tmhd)]_2 (4) (black) and [Sr(bdmadmaph)(tmhd)]_2 (5) (red).

Figure S5. TGA plots of [Sr(dmaemp)(tmhd)]_2 (6) (black), [Sr(dmapmp)(tmhd)]_2 (7) (red), [Sr(dmamemp)(tmhd)]_2 (8) (blue), and [Sr dmaeemp)(tmhd)]_2 (9) (green).
Table S6. Crystallographic data and data collection parameters for 1, 2, 4, 5, and 7.

<table>
<thead>
<tr>
<th>Compound</th>
<th>(1)</th>
<th>(2)</th>
<th>(4)</th>
<th>(5)</th>
<th>(7)</th>
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<tr>
<td>Formula weight</td>
<td>944.42</td>
<td>1116.74</td>
<td>1086.67</td>
<td>114.72</td>
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<tr>
<td>Temperature (K)</td>
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<td>173(2)</td>
<td>173(2)</td>
<td>173(2)</td>
<td>173(2)</td>
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<tr>
<td>Wavelength (Å)</td>
<td>0.71073 Å</td>
<td>0.71073</td>
<td>0.71073</td>
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<tr>
<td>Crystal system</td>
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<td>Monoclinic</td>
<td>Tetragonal</td>
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<tr>
<td>Space group</td>
<td>P2₁/n</td>
<td>P2₁/n</td>
<td>P2₁/c</td>
<td>P2₁/c</td>
<td>P4₁/a</td>
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<tr>
<td>a (Å)</td>
<td>10.736(2)</td>
<td>17.275(4)</td>
<td>12.915(3)</td>
<td>29.008(6)</td>
<td>26.451(4)</td>
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<tr>
<td>b (Å)</td>
<td>14.750(3)</td>
<td>10.216(2)</td>
<td>14.502(3)</td>
<td>11.542(2)</td>
<td>26.451(4)</td>
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<tr>
<td>c (Å)</td>
<td>16.890(3)</td>
<td>19.675(4)</td>
<td>16.512(3)</td>
<td>19.150(4)</td>
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<td>α (°)</td>
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<td>90</td>
<td>90</td>
<td>90</td>
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<tr>
<td>β (°)</td>
<td>102.20(3)</td>
<td>113.21(3)</td>
<td>99.99(3)</td>
<td>94.86(3)</td>
<td>90</td>
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<tr>
<td>γ (°)</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
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<tr>
<td>V (Å³)</td>
<td>2614.2(9)</td>
<td>3191.3(11)</td>
<td>3045.8(11)</td>
<td>6389(2)</td>
<td>9393(3)</td>
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<tr>
<td>Z</td>
<td>2</td>
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<td>2</td>
<td>4</td>
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<tr>
<td>ρcalc (Mg/m³)</td>
<td>1.200</td>
<td>1.162</td>
<td>1.185</td>
<td>1.159</td>
<td>1.259</td>
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<td>μ (mm⁻¹)</td>
<td>2.084</td>
<td>1.717</td>
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<td>1.716</td>
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<td>F(000)</td>
<td>1008</td>
<td>1204</td>
<td>1168</td>
<td>2400</td>
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<td>Crystal size (mm³)</td>
<td>0.23 x 0.20 x 0.16</td>
<td>0.34 x 0.29 x 0.18</td>
<td>0.35 x 0.30 x 0.25</td>
<td>0.24 x 0.22 x 0.19</td>
<td>0.70 x 0.45 x 0.08</td>
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<tr>
<td>Theta range for data collection (°)</td>
<td>3.03 to 27.44</td>
<td>3.00 to 27.48</td>
<td>3.07 to 27.49</td>
<td>3.02 to 27.45</td>
<td>3.08 to 27.47</td>
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<td>Index ranges</td>
<td>-13&lt;=h&lt;=13, -19&lt;=k&lt;=17, -21&lt;=l&lt;=21</td>
<td>-22&lt;=h&lt;=22, -13&lt;=k&lt;=12, -23&lt;=l&lt;=25</td>
<td>-16&lt;=h&lt;=16, -18&lt;=k&lt;=18, -21&lt;=l&lt;=21</td>
<td>-37&lt;=h&lt;=37, -14&lt;=k&lt;=14, -22&lt;=l&lt;=24</td>
<td>-34&lt;=h&lt;=30, -34&lt;=k&lt;=34, -17&lt;=l&lt;=17</td>
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<td>total reflns</td>
<td>23744</td>
<td>28960</td>
<td>29024</td>
<td>60438</td>
<td>45260</td>
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<td>Independent reflns(Rint)</td>
<td>5953 (0.0672)</td>
<td>13398 (0.0390)</td>
<td>6938 (0.0544)</td>
<td>14403 (0.1011)</td>
<td>5378 (0.1292)</td>
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<td>parameters</td>
<td>350</td>
<td>676</td>
<td>386</td>
<td>664</td>
<td>246</td>
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<td>GOF on F²</td>
<td>1.039</td>
<td>1.024</td>
<td>1.161</td>
<td>1.029</td>
<td>1.070</td>
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<tr>
<td>R1 [I&gt;2σ(I)]</td>
<td>0.0422</td>
<td>0.0383</td>
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<td>0.0540</td>
<td>0.0508</td>
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<td>wR2 [I&gt;2σ(I)]</td>
<td>0.0820</td>
<td>0.0889</td>
<td>0.0933</td>
<td>0.0984</td>
<td>0.1035</td>
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