Electronic supplementary information (ESI)

Structural Modulation of Silver Complexes and Their Distinctive Catalytic Properties

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Table S1 Distances [Å] and angles [°] of hydrogen bonding for complexes 1 - 3

<table>
<thead>
<tr>
<th>D-H···A b</th>
<th>Distance (D···A b)</th>
<th>D-H A b</th>
<th>Angle (D-H-A b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5-H5B···F4#1</td>
<td>3.444</td>
<td>C5-H5B-F4</td>
<td>152</td>
</tr>
<tr>
<td>C6-H6B···O7#2</td>
<td>3.260</td>
<td>C6-H6B-O7</td>
<td>140</td>
</tr>
<tr>
<td>C8-H8B···O5#3</td>
<td>3.031</td>
<td>C17-H17A-O8</td>
<td>100</td>
</tr>
<tr>
<td>C23-H23B···O6#4</td>
<td>2.980</td>
<td>C23-H23B-O6</td>
<td>98</td>
</tr>
<tr>
<td>C2-H2A···F2#6</td>
<td>2.614(4)</td>
<td>C2-H2A-F2</td>
<td>124</td>
</tr>
<tr>
<td>C19-H7···O4#7</td>
<td>3.170(12)</td>
<td>C1-H1-F6</td>
<td>131</td>
</tr>
<tr>
<td>C19-H7···O3#8</td>
<td>3.411(10)</td>
<td>C4-H4-F1</td>
<td>148</td>
</tr>
<tr>
<td>C29-H15···O2#9</td>
<td>2.668(3)</td>
<td>C29-H15-O2</td>
<td>151</td>
</tr>
</tbody>
</table>

a Symmetry codes for 1-3: #1: -x, 1/2+y, -1/2-z; #2: -1+x, 3/2-y, 1/2+z; #3: x, 3/2-y, -1/2+z; #4: -1+x, 3/2-y, 1/2+z; #5: -x, 2-y, -z; #6: 2-x, -y, 1-z; #7: -1/2+x, 1/2+y, z; #8: 1/2-x, 3/2-y, 1-z; #9: 1/2-x, 1/2-y, 1-z. b D: donor; A: acceptor
NMR spectra

Figure S1

Figure S2
Figure S3

Figure S4
Figure S5

Figure S6
Figure S7

Figure S8
Figure S9

Figure S10
Figure S11

Figure S12
Figure S13

Figure S14
Figure of Structure

Figure S15 (a) 1D double chain of 1 with hydrogen bonds indicated by dashed lines.

Figure S15 (b) 2D network of 1 with hydrogen bonds indicated by dashed lines.

Figure S15 (c) 3D structure of 1 with hydrogen bonds indicated by dashed lines.
Figure S16 3D structure of 2 with hydrogen bonds indicated by dashed lines.

Figure S17 3D structure of 3 with hydrogen bonds indicated by dashed lines, CF₃COO⁻ are omitted for clarity.