Electronic Supplementary Information

Stimuli-responsive europium-containing metallo-supramolecular polymers

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Table of Contents

Fig. S1 \textsuperscript{1}H-NMR of 1. 
Fig. S2 \textsuperscript{13}C-NMR of 1. 
Fig. S3 MALDI-TOF of 1. 
Fig. S4 MALDI-TOF/TOF of 1. 
Fig. S5 Solution PL of metallo-supramolecular polymers. 
Fig. S6 DMTA of metallo-supramolecular polymer films. 
Fig. S7 TGA of metallo-supramolecular polymer films. 
Fig. S8 Photograph of the 70:30 Zn\textsuperscript{2+}:Eu\textsuperscript{3+}:1 dipped into triethyl phosphate liquid. 
Table S1 d-spacings from WAXS of metallo-supramolecular polymer films.
Fig. S1 $^1$H-NMR of 1.

Fig. S2 $^{13}$C-NMR of 1.
Fig. S3 MALDI-TOF of 1; matrix: HABA [2-(4-hydroxyphenylazo)benzoic acid] with a sodium trifluoroacetate additive.

Figure S4 MALDI-TOF/TOF of 1; matrix: HABA [2-(4-hydroxyphenylazo)benzoic acid] with a sodium trifluoroacetate additive. Fragment peak at 355.4 m/z corresponds to [M+H] of Mebip ligand.
Fig S5 Photoluminescence spectra (PL) of 1 (25 mM) with varying ratios of Zn$^{2+}$:Eu$^{3+}$ in solution (excited at 385 nm).

Fig. S6 Dynamic mechanical thermal analysis (DMTA) of films made from 1 with varying ratios of Zn$^{2+}$:Eu$^{3+}$. Samples were cooled directly to -110 °C and run. The increase in modulus at -35 °C is attributed to a cold crystallization of the p(THF) core.
Fig. S7 TGA of films made from 1 with varying ratios of Zn$^{2+}$:Eu$^{3+}$. Thermogravimetric analyses were carried out on a TA Instruments TGAQ500 under N$_2$.

Fig. S8 Photograph of the 70:30 Zn$^{2+}$:Eu$^{3+}$:1 dipped into triethyl phosphate liquid
Table S1 WAXS d-spacings of select films of I and varying ratios of Zn$^{2+}$:Eu$^{3+}$. 

<table>
<thead>
<tr>
<th>Zn$^{2+}$:Eu$^{3+}$</th>
<th>d$_1$ (Å)</th>
<th>d$_2$ (Å)</th>
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</thead>
<tbody>
<tr>
<td>100:0</td>
<td>60.2</td>
<td>9.8</td>
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<tr>
<td>90:10</td>
<td>50.3</td>
<td>9.7</td>
</tr>
<tr>
<td>70:30</td>
<td>-</td>
<td>9.5</td>
</tr>
<tr>
<td>50:50</td>
<td>58.6</td>
<td>9.5</td>
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