

## Supporting Information

to

### **Stimuli-responsive self-assembly of one-step prepared supramolecular heterotelechelic polymers**

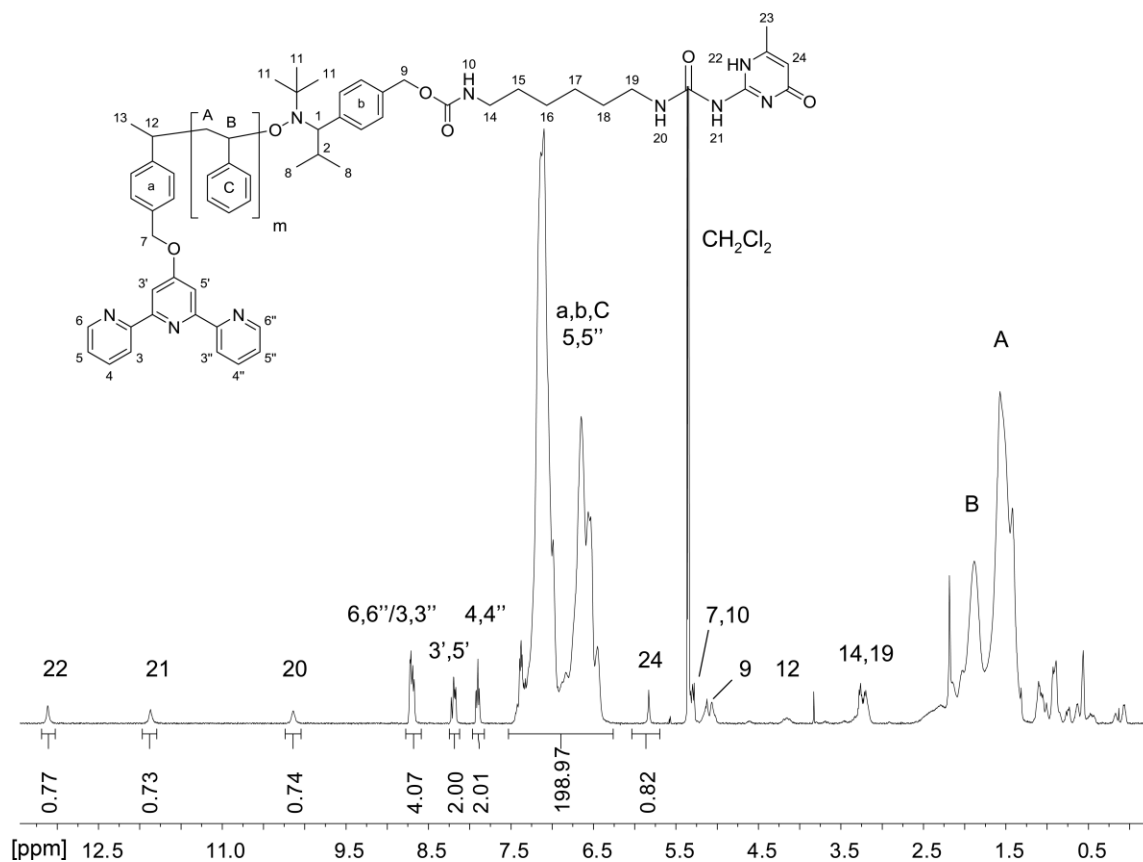
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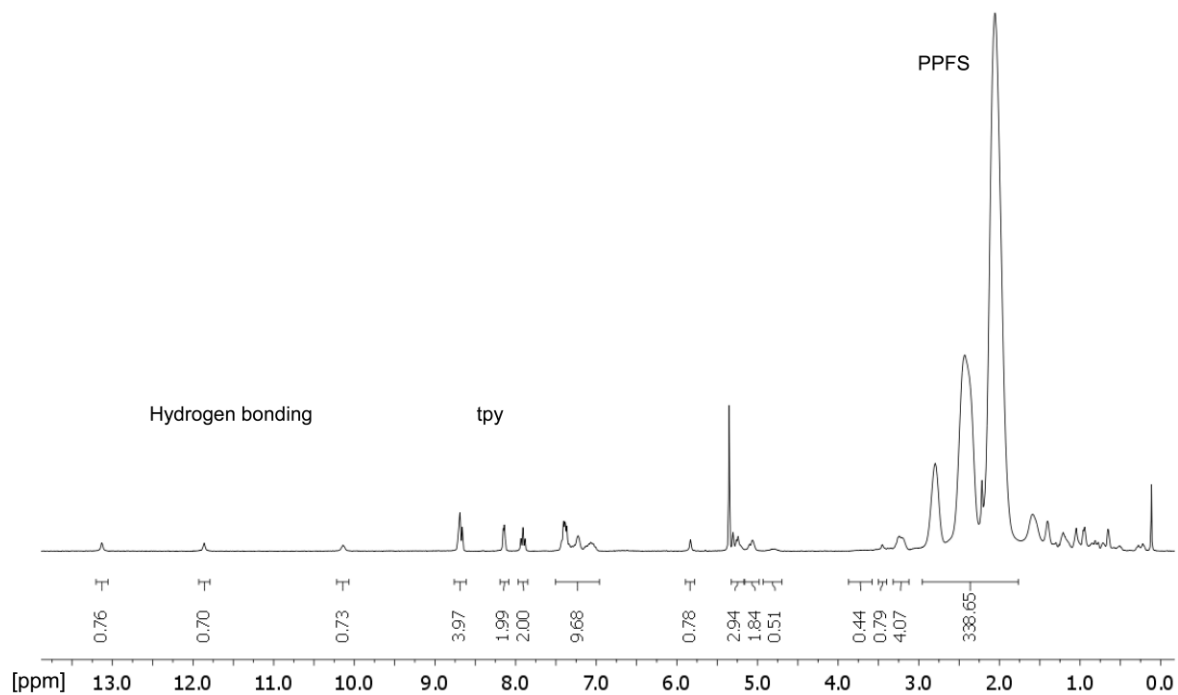
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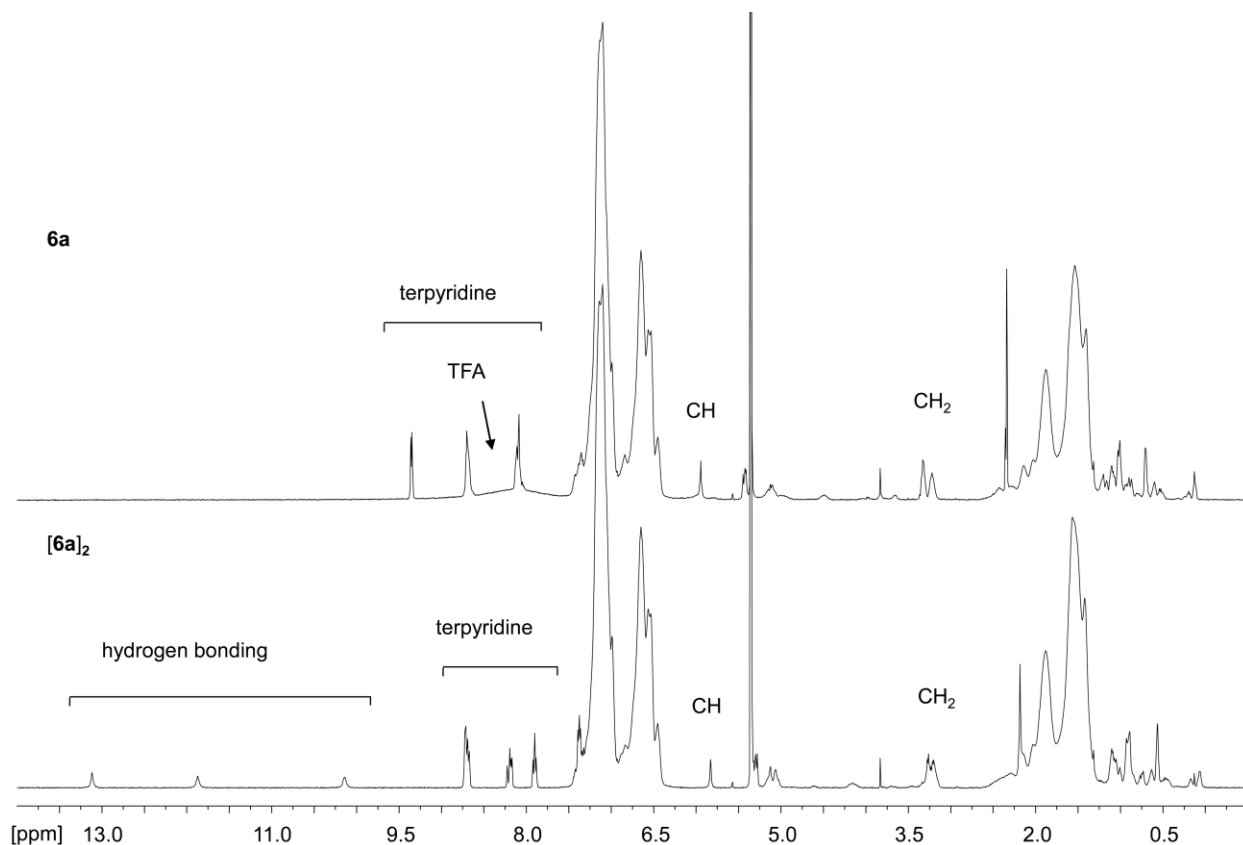
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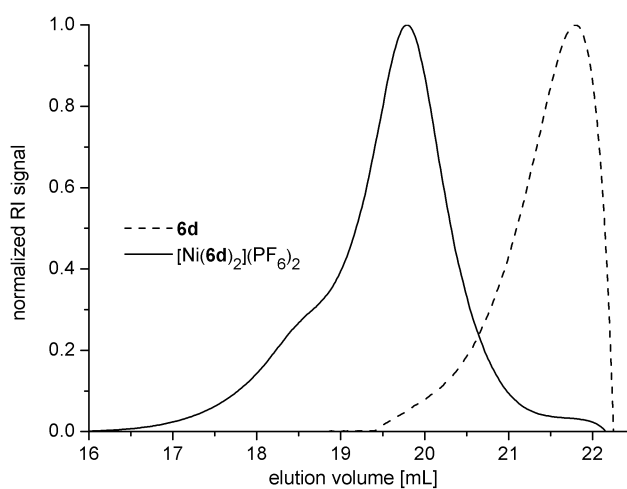
**Figure S1**  $^1\text{H}$  NMR spectrum of **tpy~PS~UPy 6a** (400 MHz,  $\text{CD}_2\text{Cl}_2$ ).



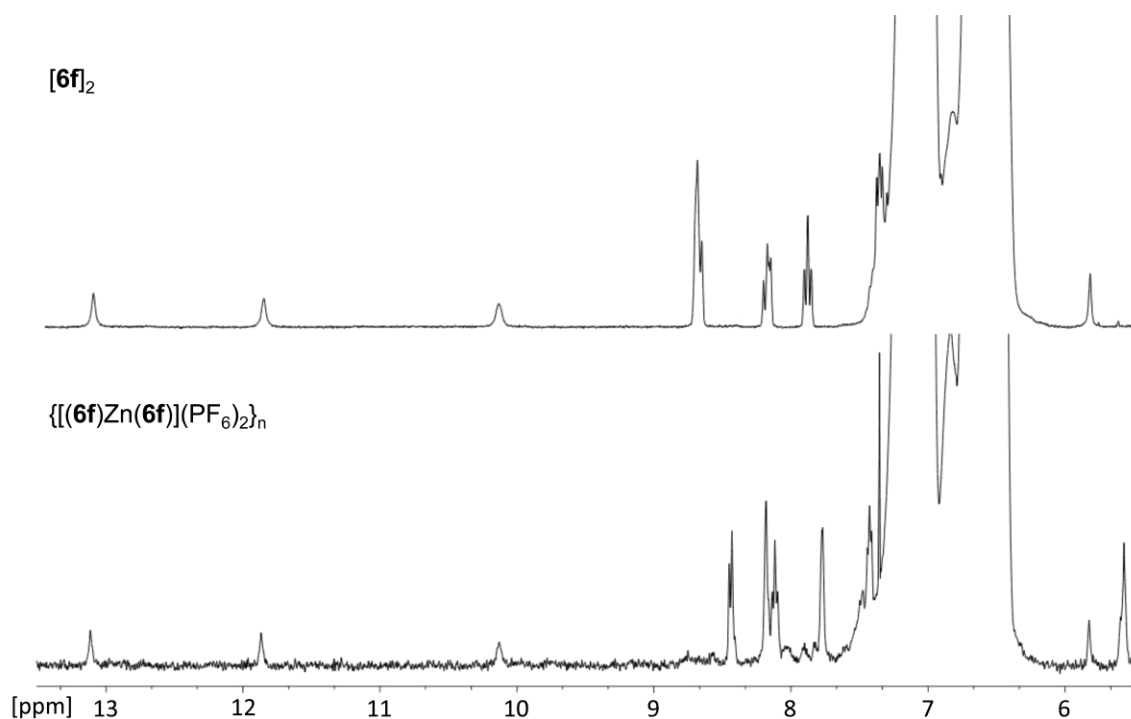
**Figure S2**  $^1\text{H}$  NMR spectrum of **tpy~PPFS~UPy 7** (400 MHz,  $\text{CD}_2\text{Cl}_2$ ).



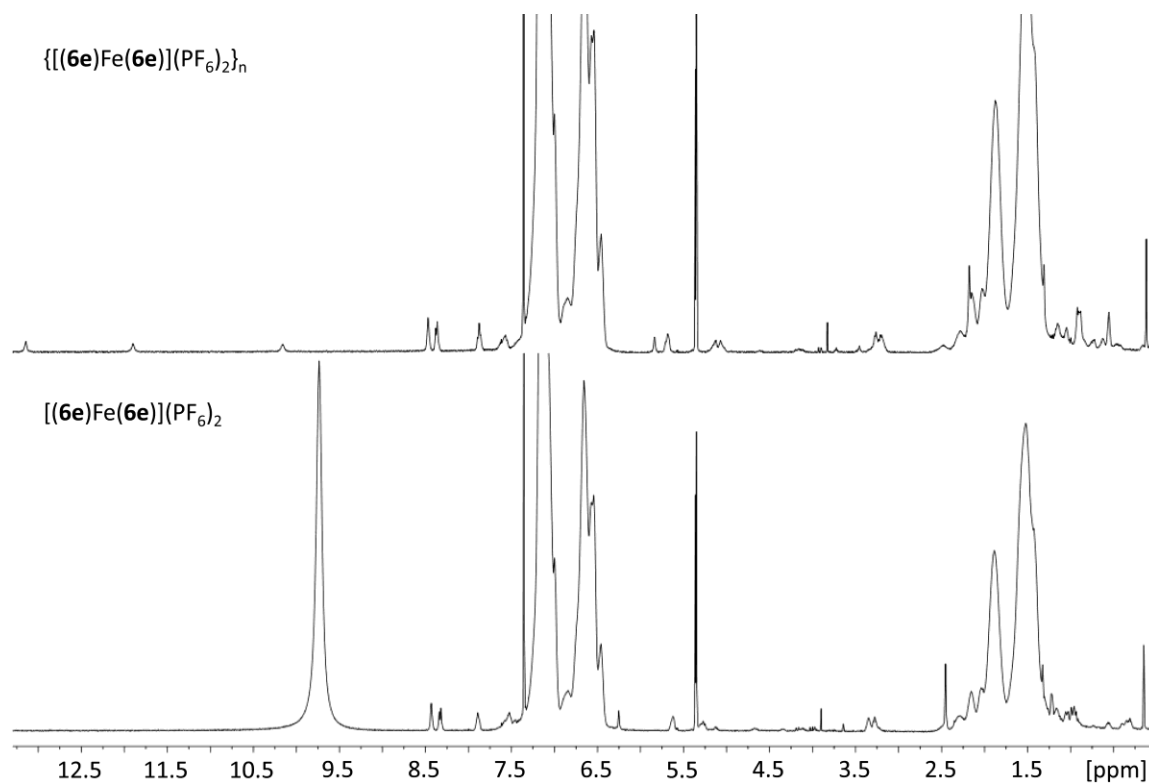
**Figure S3** <sup>1</sup>H NMR spectra for the monomeric (denoted **6a**) and dimeric (denoted **[6a]<sub>2</sub>**) species of tpy~PS~UPy in CD<sub>2</sub>Cl<sub>2</sub> (bottom) and CD<sub>2</sub>Cl<sub>2</sub>-TFA (top) (400 MHz, CD<sub>2</sub>Cl<sub>2</sub>, 298 K).



**Figure S4** SEC traces (RI signal) of **6** and **[Ni(6d)<sub>2</sub>](PF<sub>6</sub>)<sub>2</sub>**; eluent: DMAc containing 0.005 M NH<sub>4</sub>PF<sub>6</sub> (Figure was created from data published in *Chem. Commun.*, **2009**, 3386-3388).



**Figure S5** Zoom into the low-field region of the  $^1\text{H}$  NMR spectra of  $(\mathbf{6f})_2$  (top) and  $\{[(\mathbf{6f})\text{Zn}(\mathbf{6f})](\text{PF}_6)_2\}_n$  (bottom) (400 MHz,  $\text{CD}_2\text{Cl}_2$ , 298 K).



**Figure S6**  $^1\text{H}$  NMR spectra of the linear supramolecular polymer  $\{[(\mathbf{6e})\text{Fe}(\mathbf{6e})](\text{PF}_6)_2\}_n$  (in  $\text{CD}_2\text{Cl}_2$ ) and the dimer  $[(\mathbf{6e})\text{Fe}(\mathbf{6e})](\text{PF}_6)_2$  after the *in-situ* addition of TFA (400 MHz,  $\text{CD}_2\text{Cl}_2$ , 298 K).