

## Electronic Supplementary Information

### Photoluminescence and Ion Sensing Properties of a Bipyridyl Chromophore-Modified Semifluorinated Polymer and its Metallopolymer Derivatives

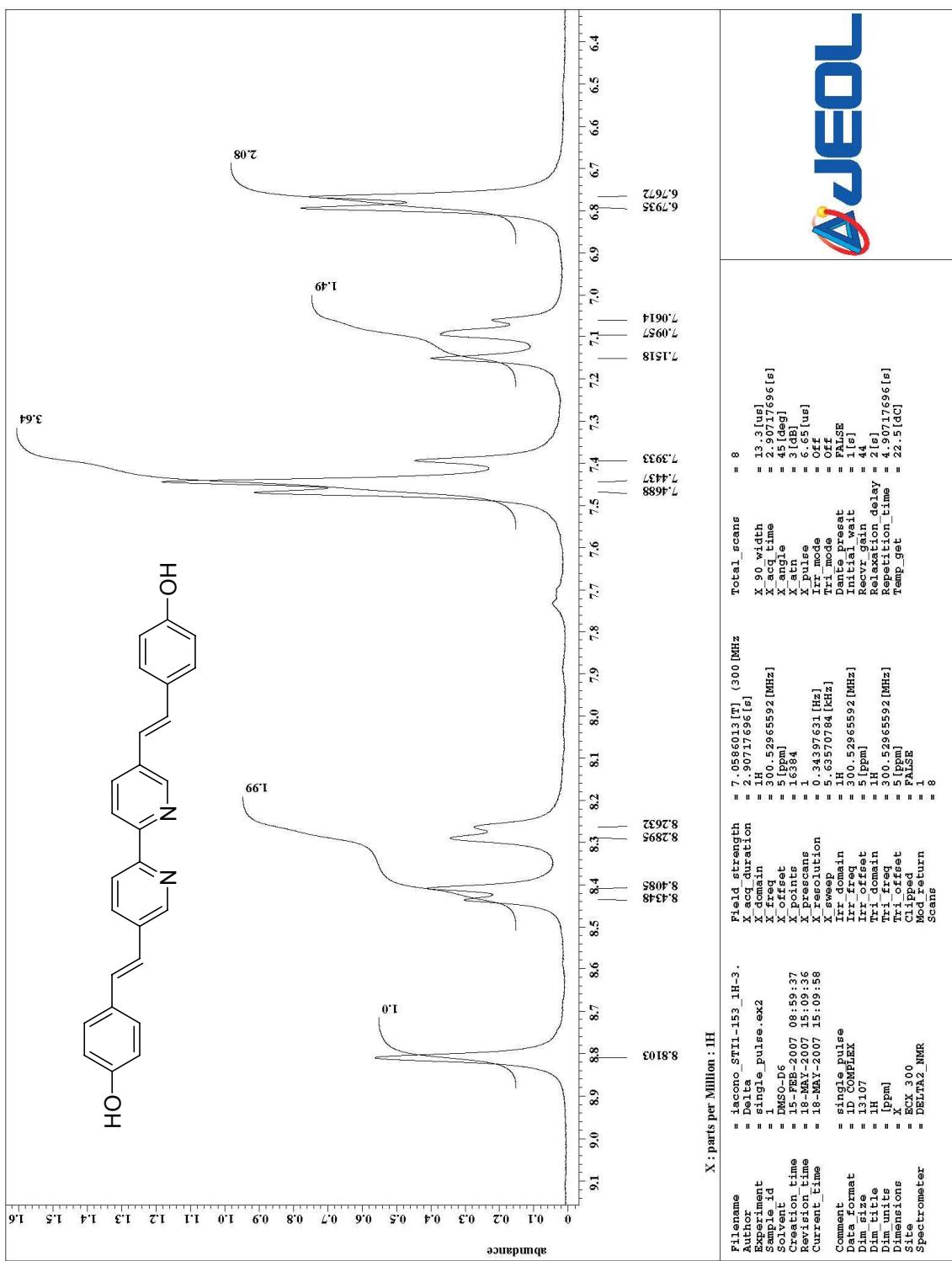
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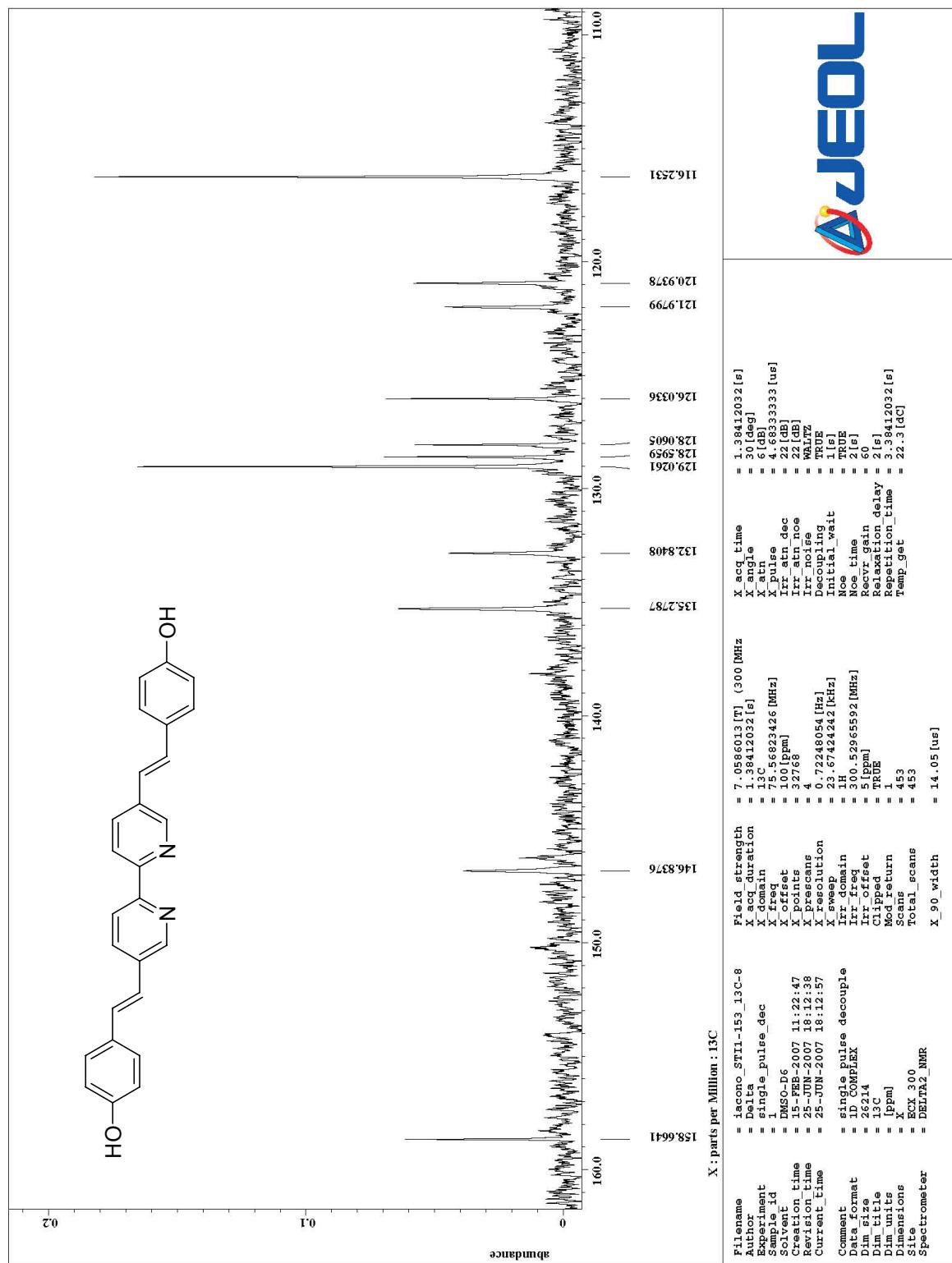
Email: [rhatt@clemson.edu](mailto:rhatt@clemson.edu)

#### List of Supplementary Information Figures:

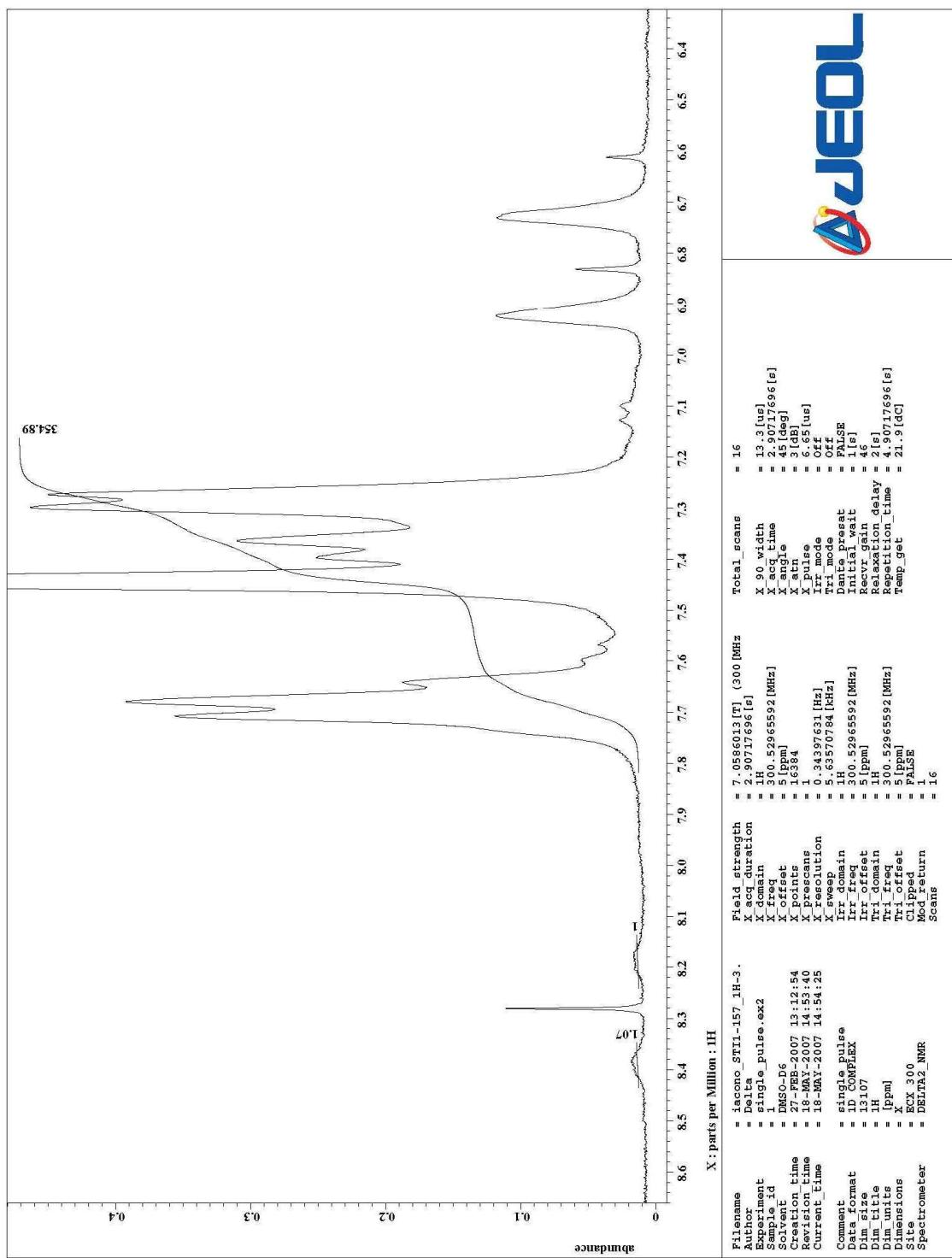
- Figure S1.** Proton NMR spectrum (300 MHz, DMSO) of 5,5'-Bis(4-hydroxystyryl)-2,2'-bipyridine
- Figure S2.** Carbon-13 NMR spectrum (75.6 MHz, DMSO) of 5,5'-Bis(4-hydroxystyryl)-2,2'-bipyridine
- Figure S3.** Proton NMR spectrum (300 MHz, DMSO) of **P1**
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- Figure S9.** Titration of **P1** with  $\text{Hg}^{2+}$ .



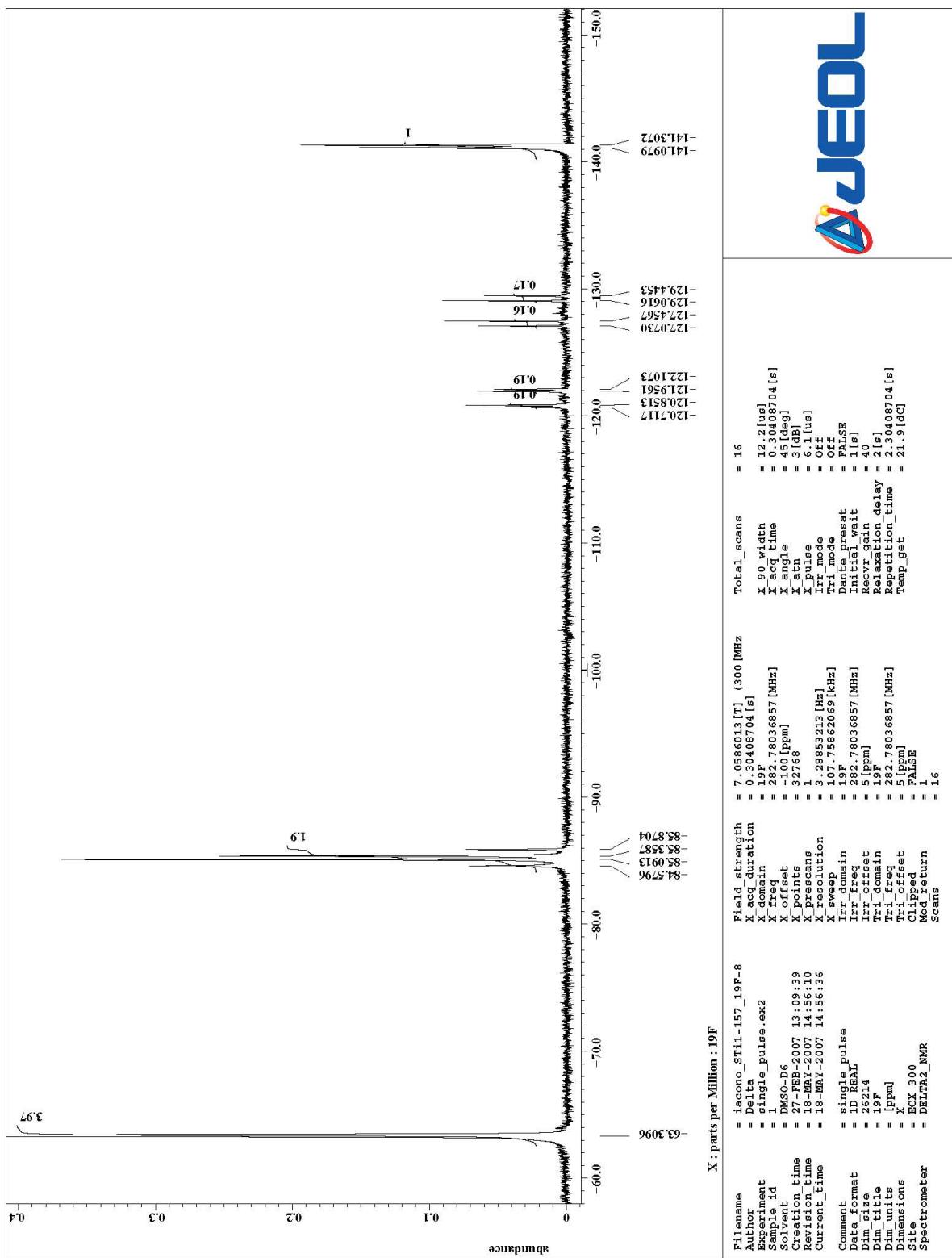
**Figure S1.** Proton NMR spectrum (300 MHz, DMSO) of 5,5'-Bis(4-hydroxystyryl)-2,2'-bipyridine (the structure is shown as an inset).



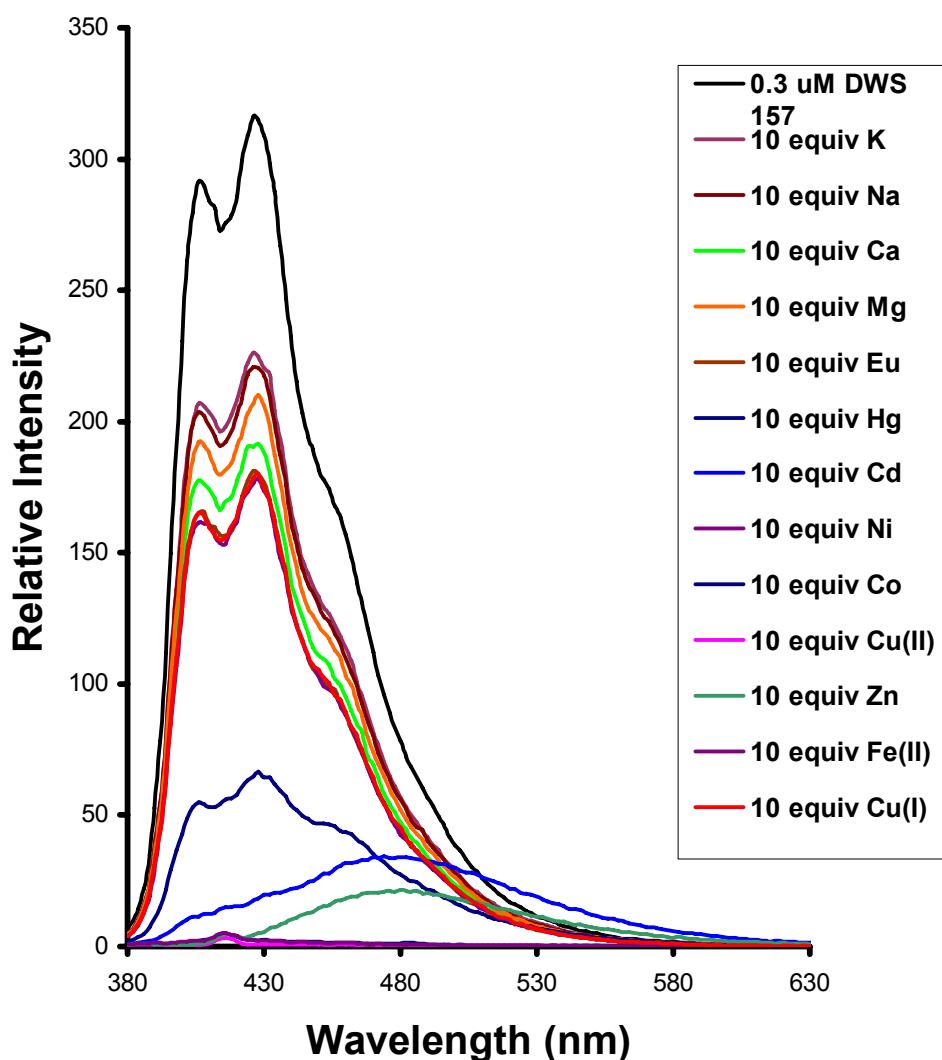
**Figure S2.** Carbon-13 NMR spectrum (75.6 MHz, DMSO) of 5,5'-Bis(4-hydroxystyryl)-2,2'-bipyridine (the structure is shown as an inset).



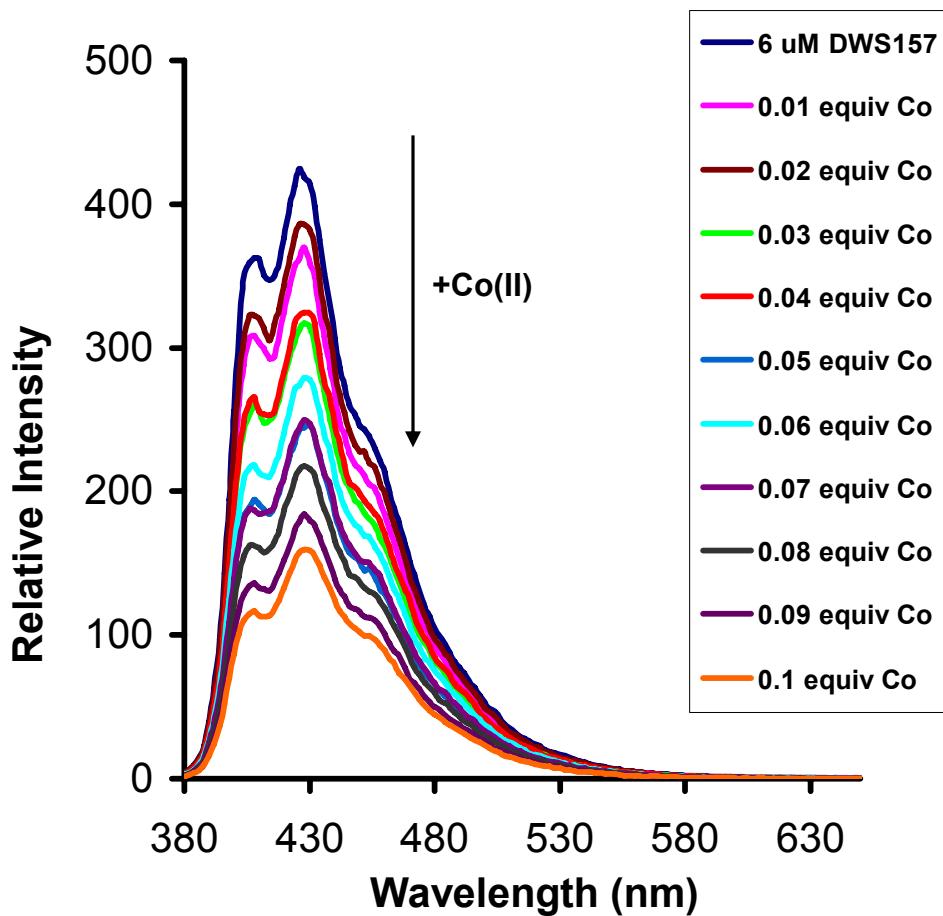
**Figure S3.** Proton NMR spectrum (300 MHz, DMSO) of **P1**.



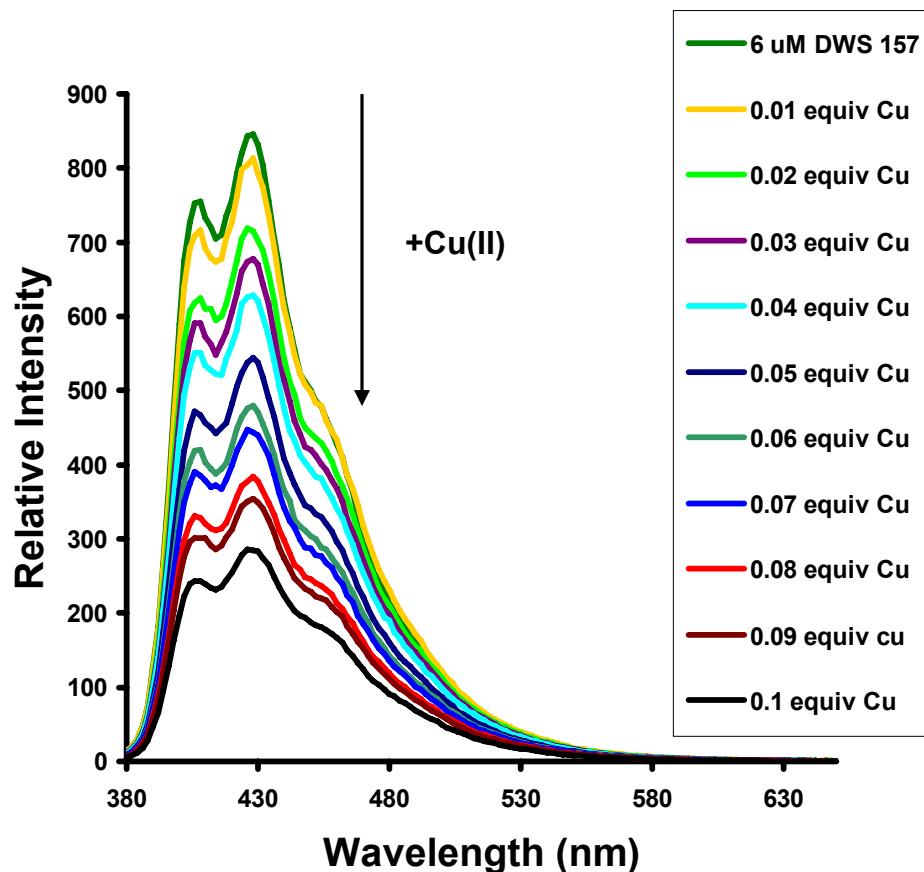
**Figure S4.** Fluorine-19 NMR spectrum (283 MHz, DMSO) of **P1**.



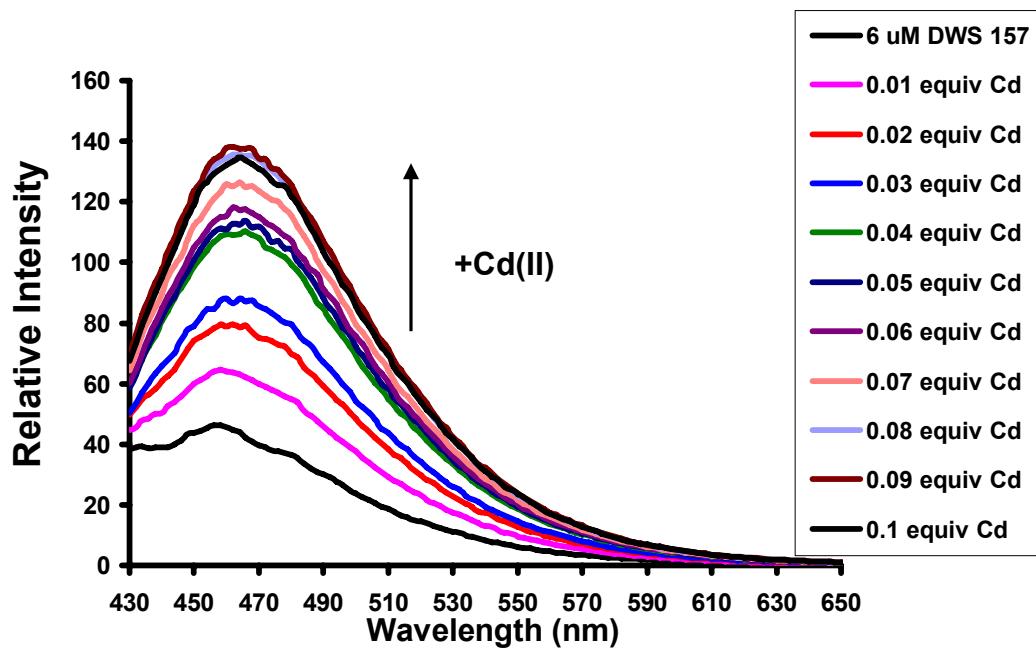
**Figure S5.** Fluorescence Response of P1 (0.3  $\mu$ M in THF) to 10 equiv of various metals ( $\lambda_{\text{ex}} = 370$  nm).



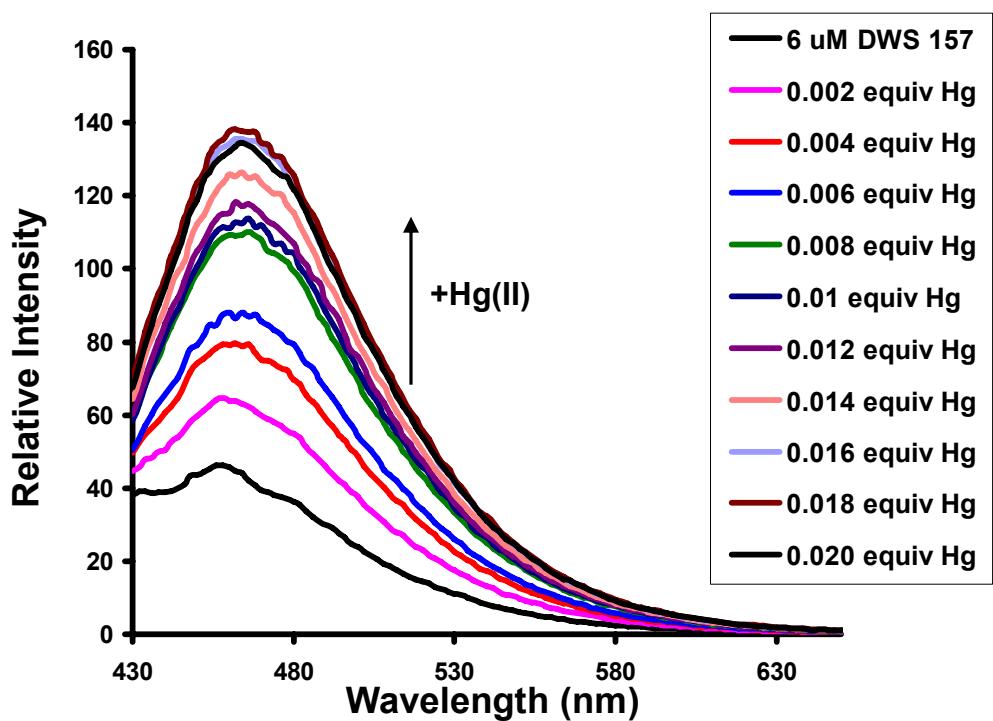
**Figure S6.** Titration of **P1** (6  $\mu$ M in THF) with Co(II) ( $\lambda_{\text{ex}} = 370$  nm).



**Figure S7.** Titration of **P1** (6  $\mu$ M in THF) with Cu(II) ( $\lambda_{\text{ex}} = 370$  nm).



**Figure S8.** Fluorescence Response of P1 to Cd(II) ( $\lambda_{\text{ex}} = 420 \text{ nm}$ ).



**Figure S9.** Fluorescence Response of **P1** to Hg (II) ( $\lambda_{\text{ex}} = 420 \text{ nm}$ ).