

## Supporting Information

### **Selective Sensing of $\text{H}_2\text{PO}_4^-$ (Pi) Driven by Assembly of Anthryl Pyridinium Ligand**

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Experimental Section

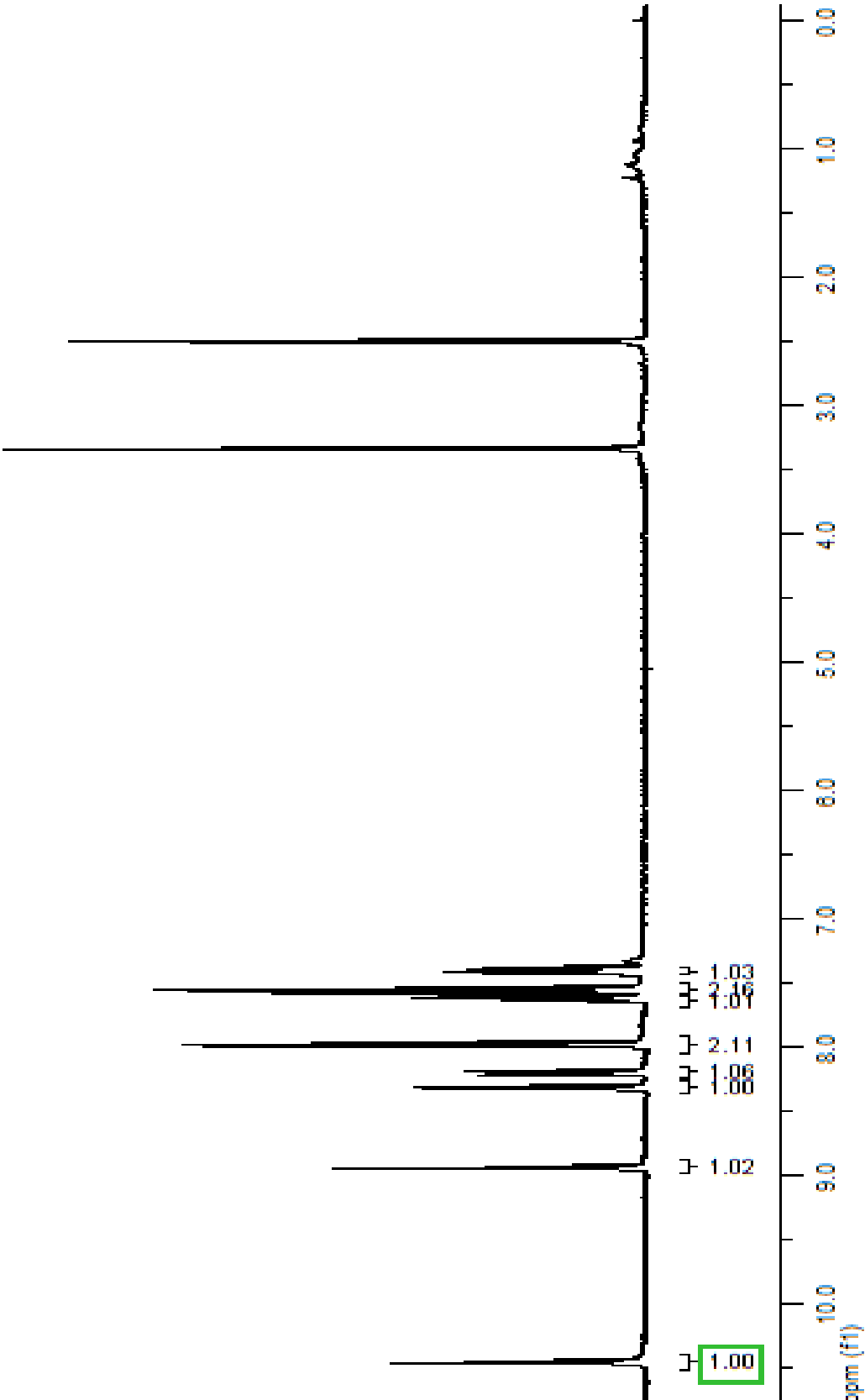


Figure S1 <sup>1</sup>H-NMR of P1

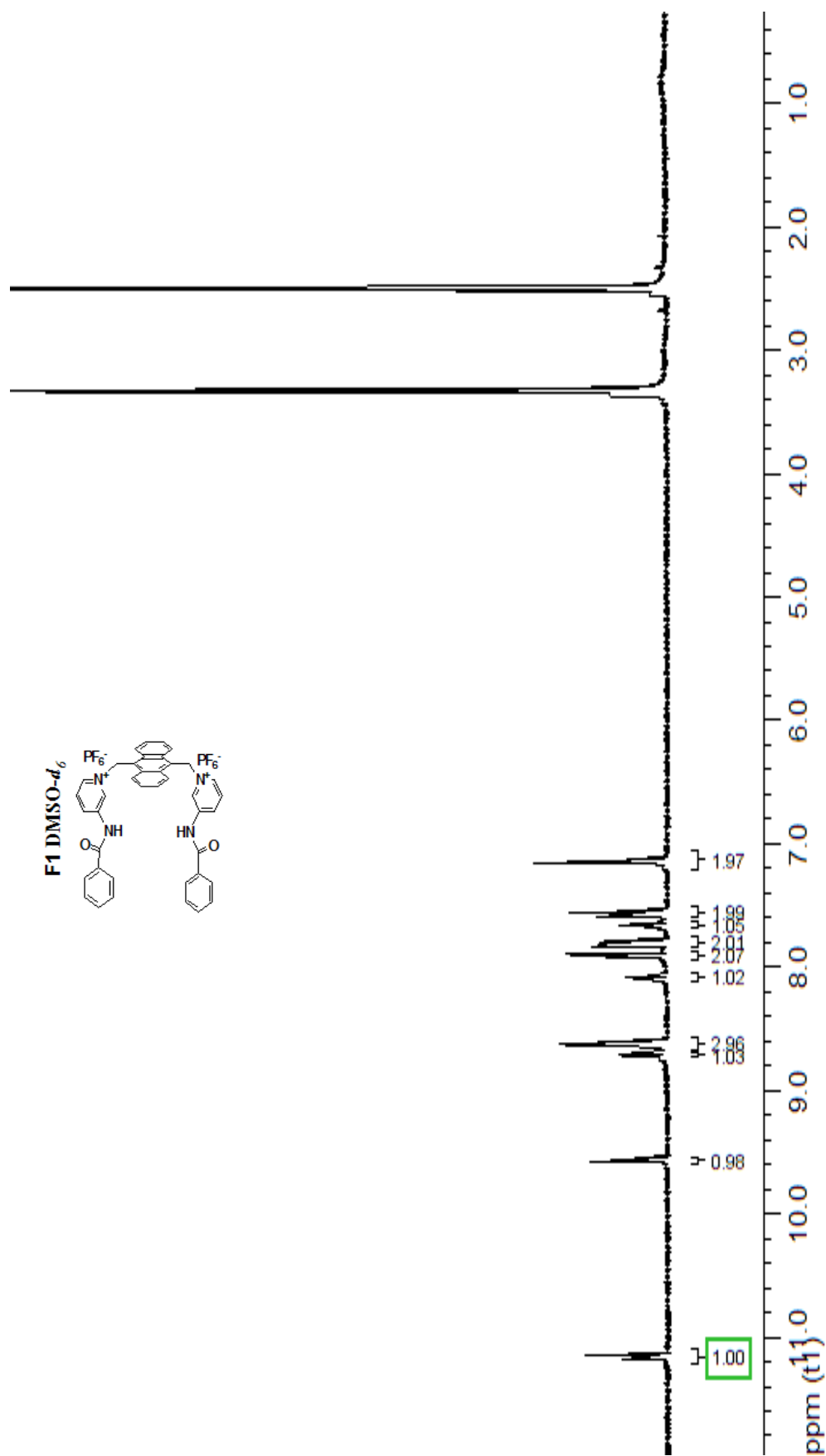
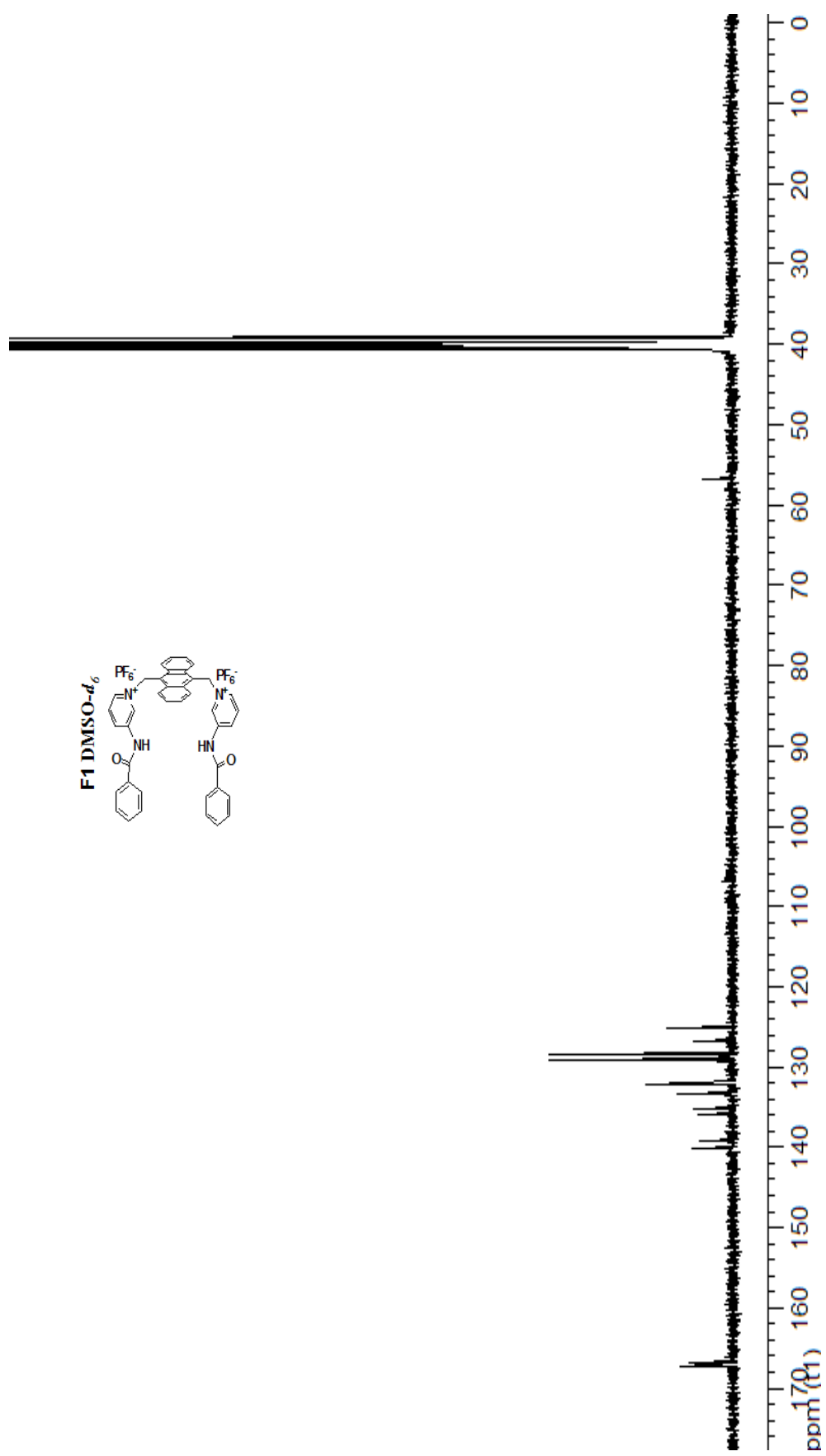


Figure S2 <sup>1</sup>H-NMR of F1



**Figure S3** <sup>13</sup>C NMR of F1

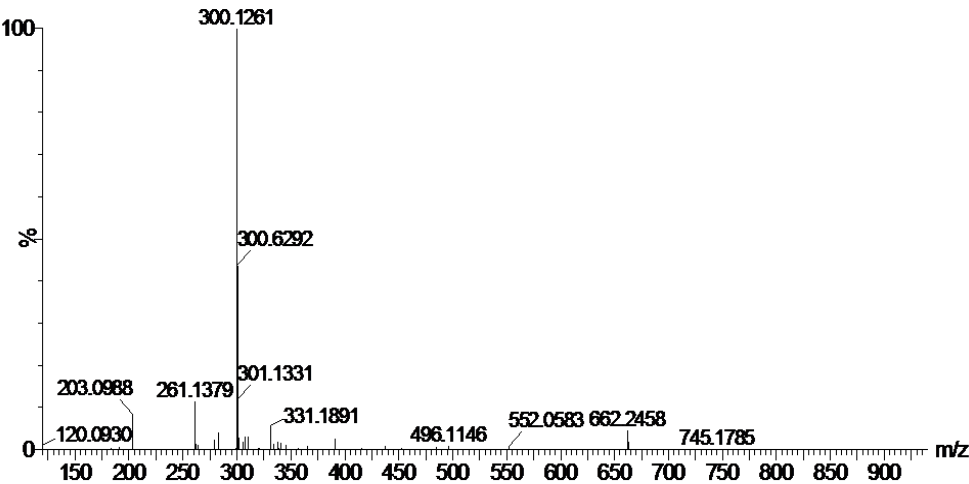


Figure S4 HRMS of F1

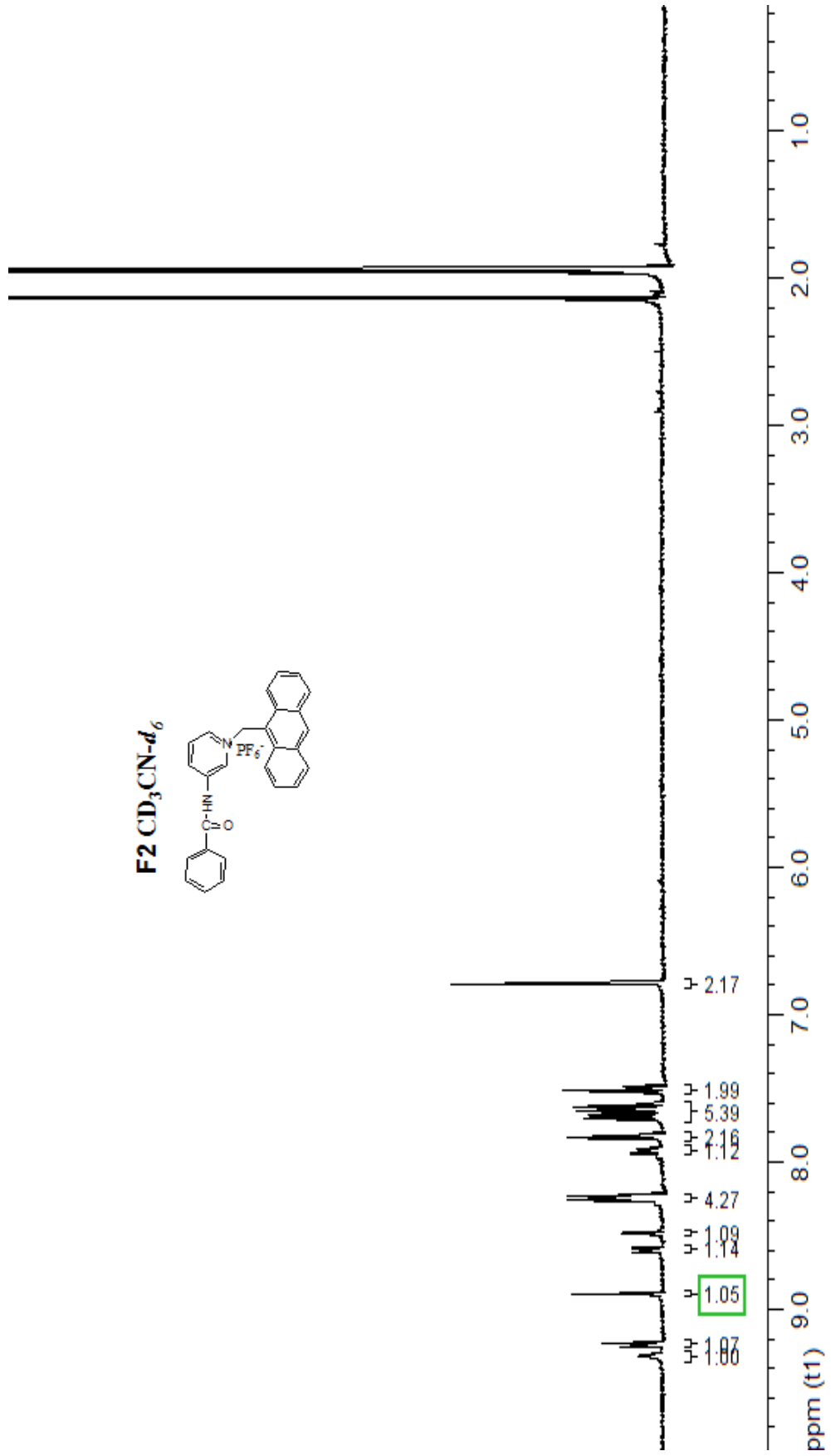


Figure S5 <sup>1</sup>H-NMR of F2

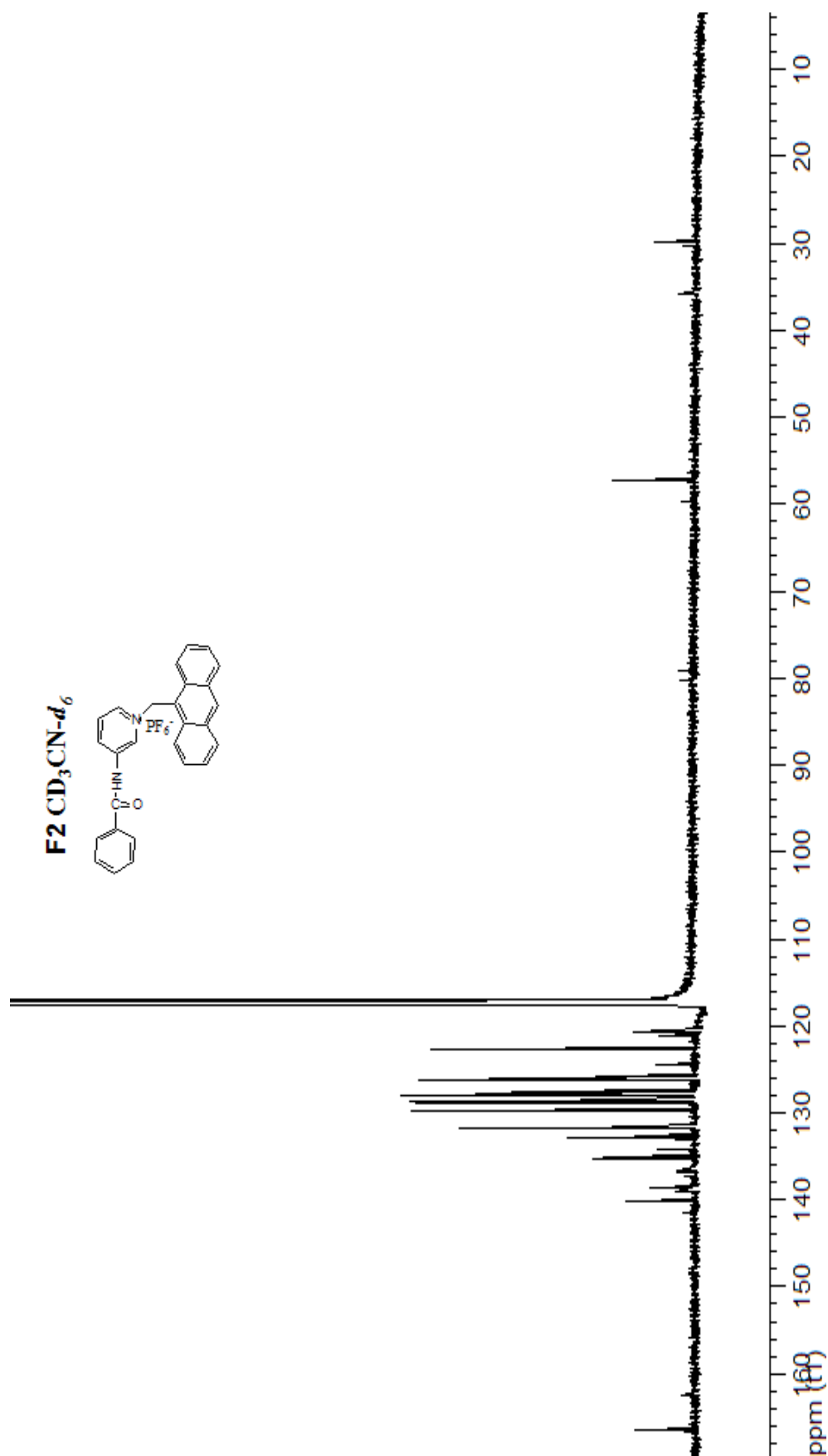


Figure S6 <sup>13</sup>C NMR of F2

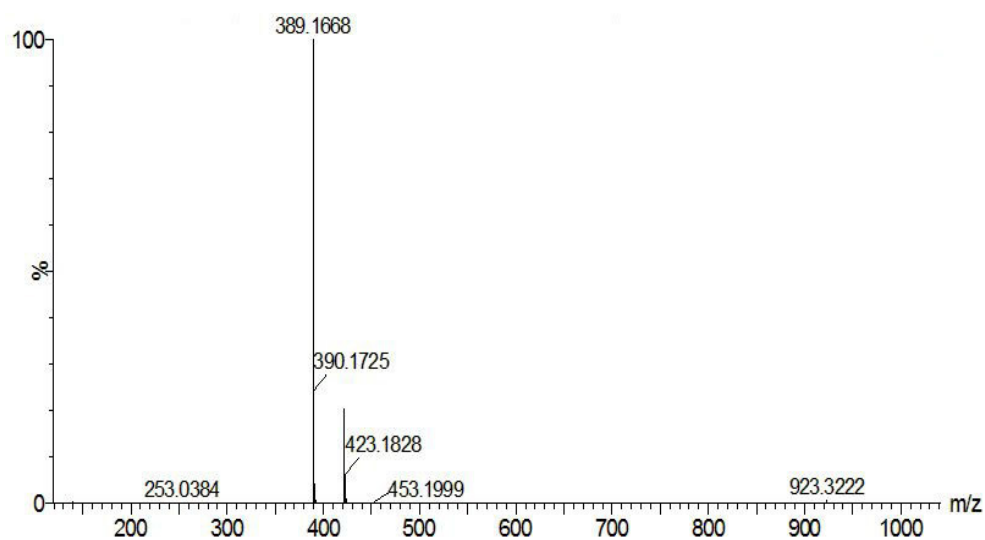


Figure S7 HRMS of F2

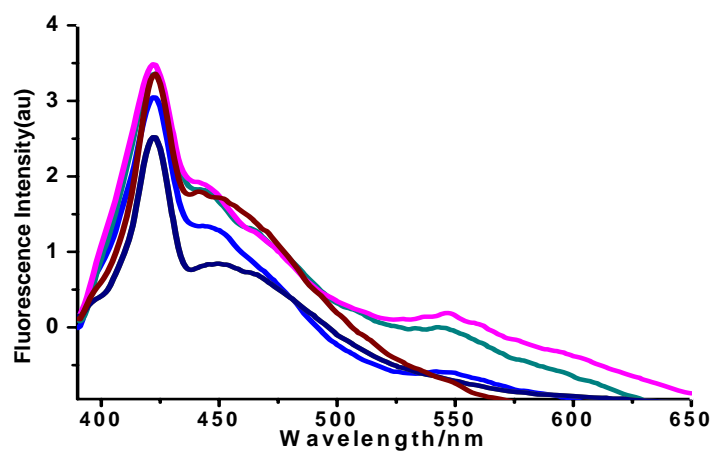


Figure S8 Fluorescence spectrum of various concentration **F2** in  $\text{CH}_3\text{CN}$

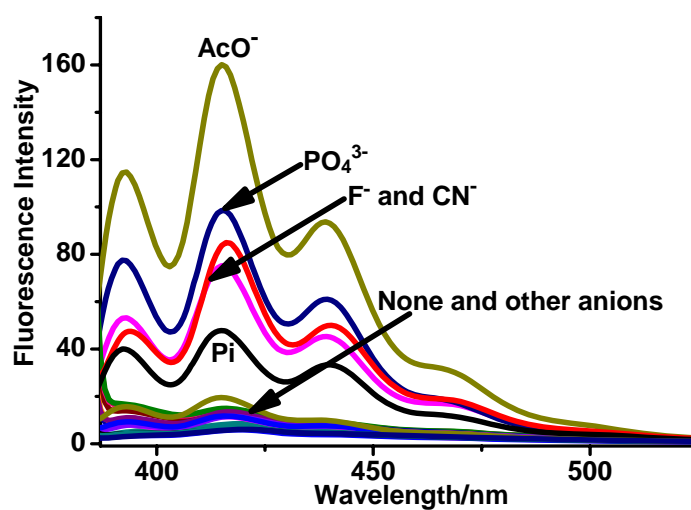


Figure S9 Fluorescence spectrum of **F2** ( $5.0\ \mu\text{M}$ ) upon addition of 5 equiv. of various anions in  $\text{CH}_3\text{CN}$ .