

## **Synthesis and Photovoltaic Properties of Dithieno[3,2-b:2',3'-d]silole-Based conjugated copolymer**

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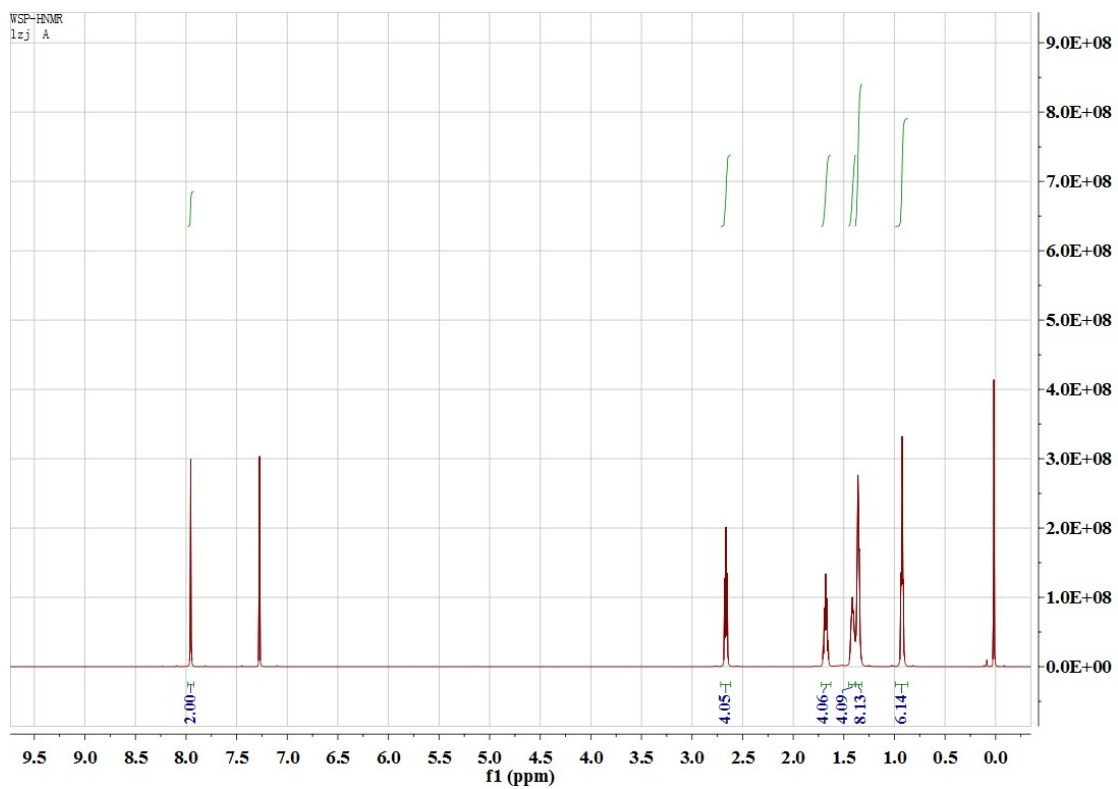
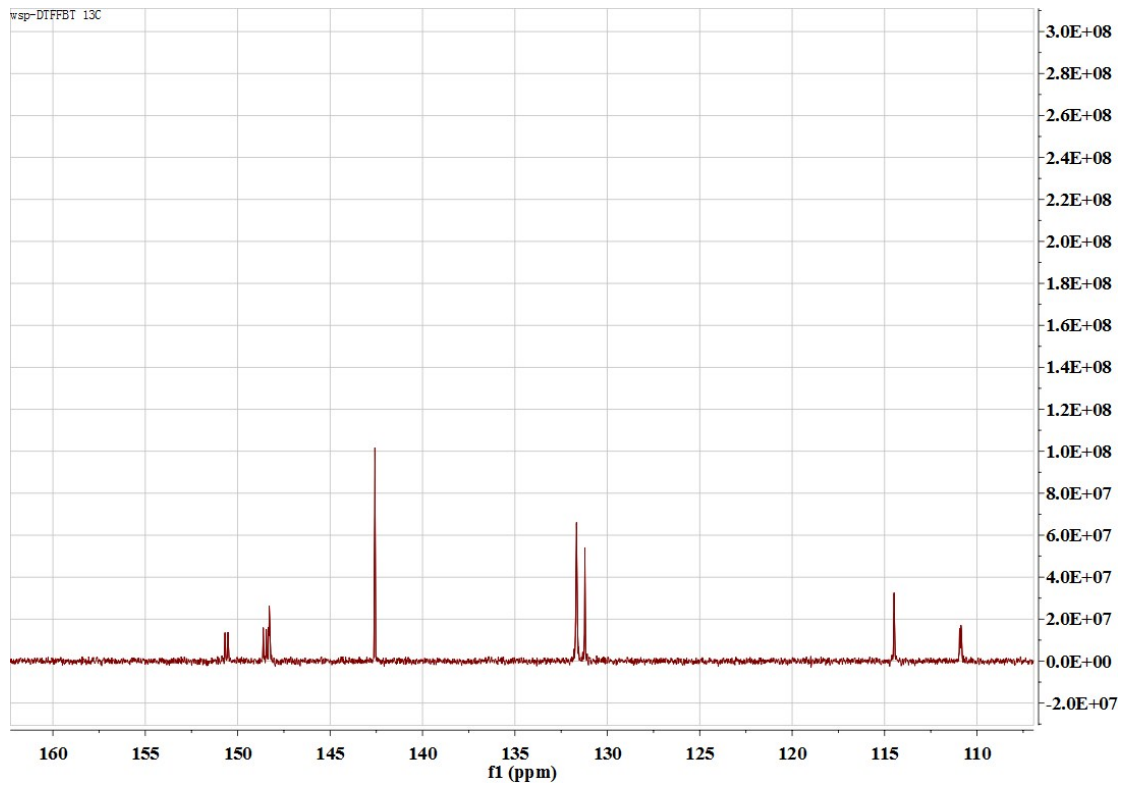
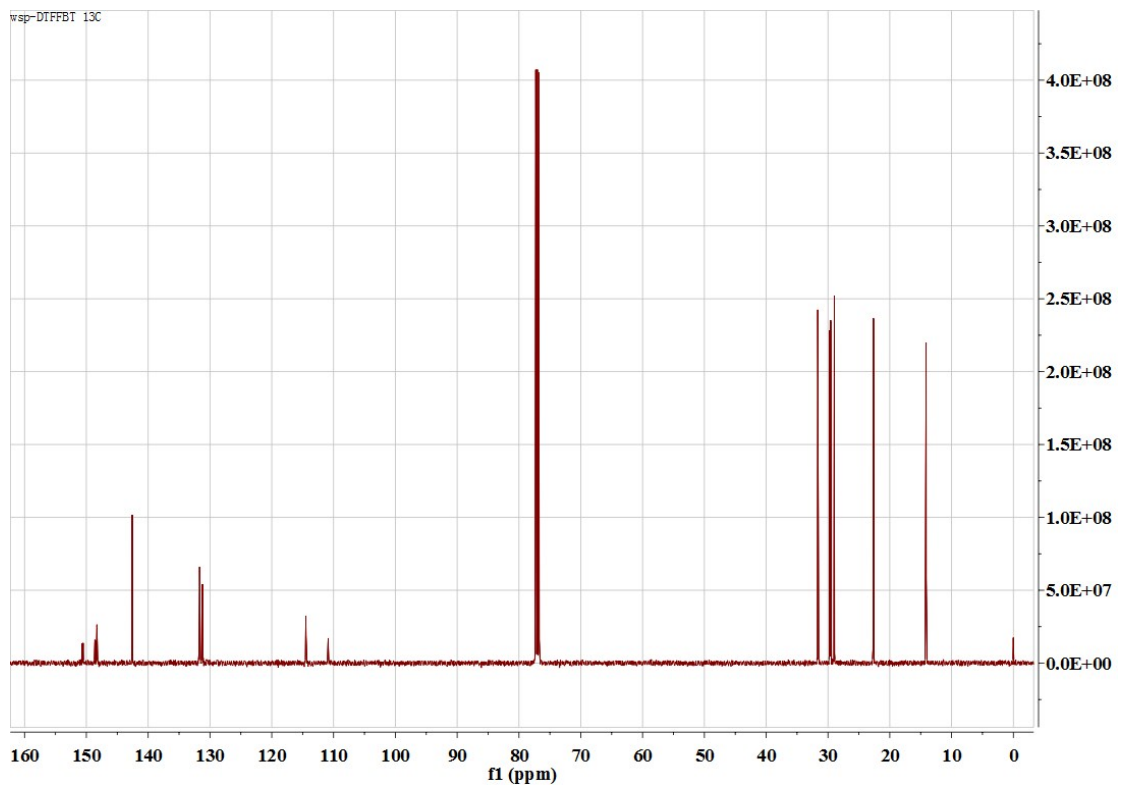


Figure S1.  $^1\text{H}$  NMR spectrum of M1 at room temperature.



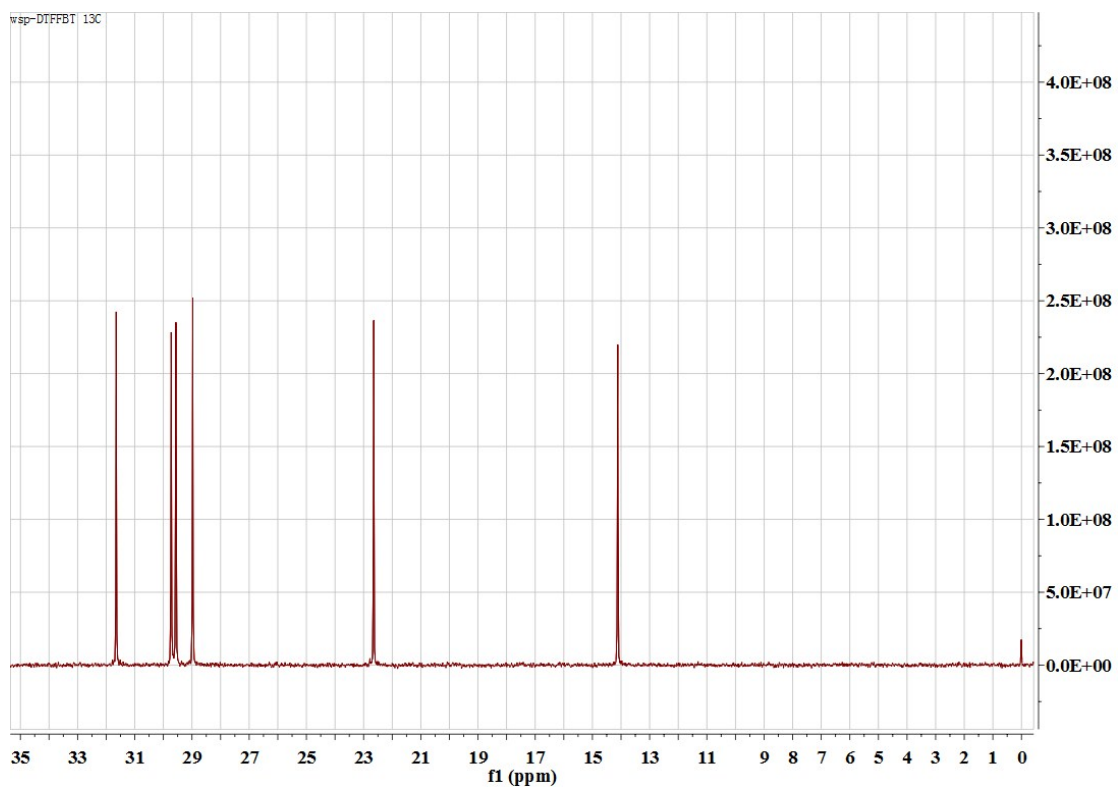


Figure S2.  $^{13}\text{C}$  NMR spectra of M1 at room temperature (the peaks above 110 ppm and below 35 ppm are also shown for clarity.).

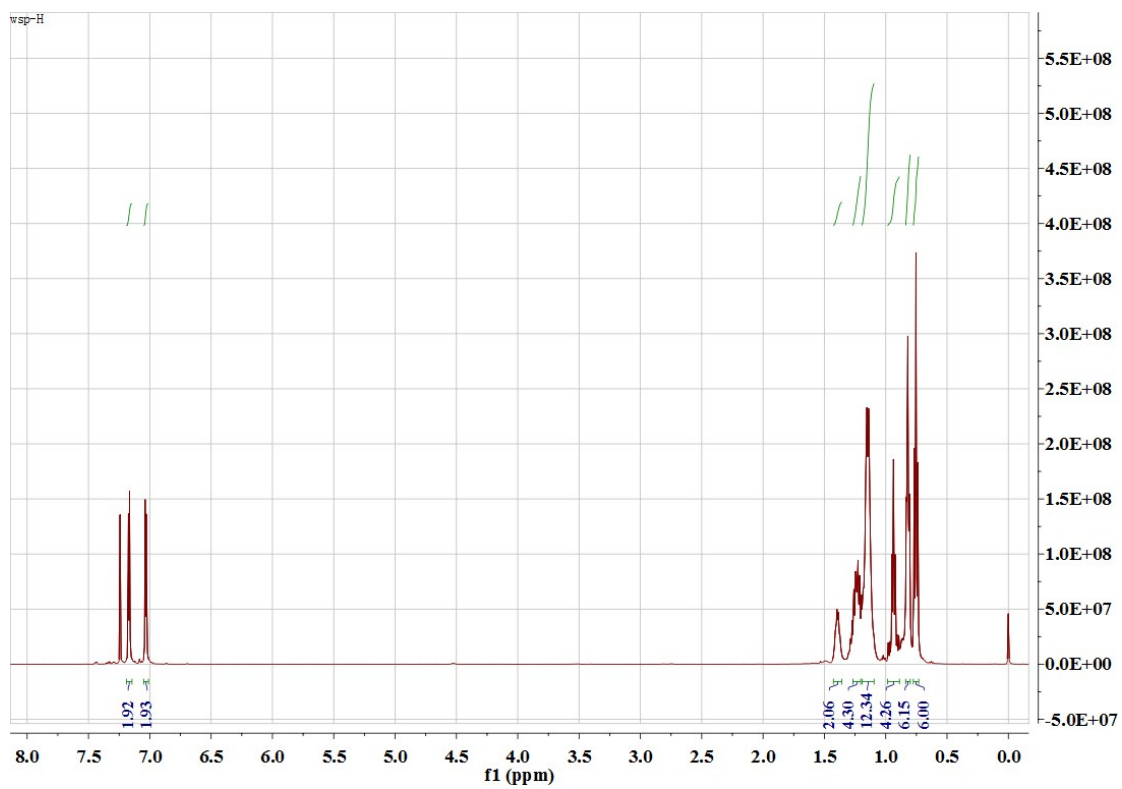


Figure S3.  $^1\text{H}$  NMR spectrum of compound **4** at room temperature.

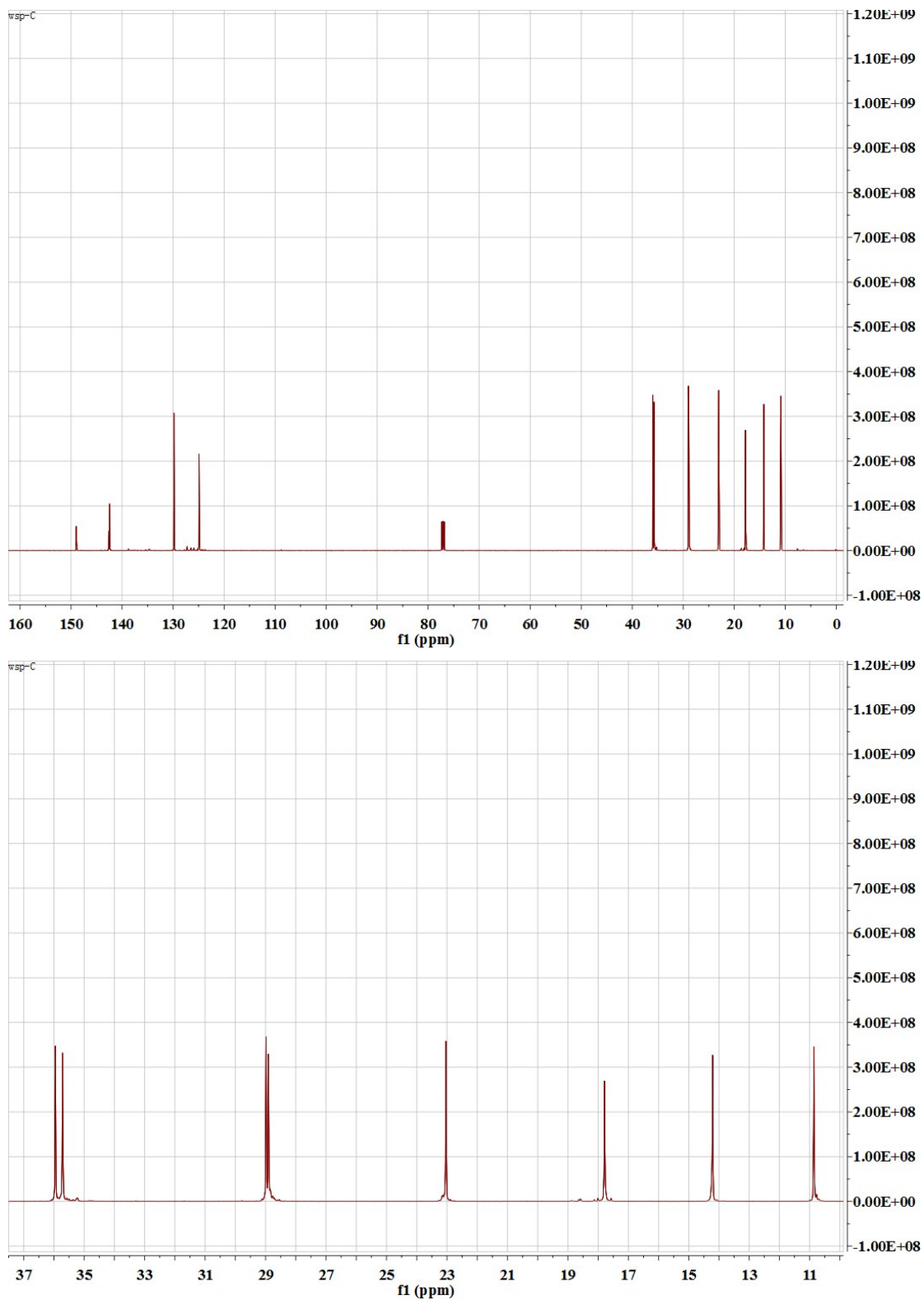


Figure S4.  $^{13}\text{C}$  NMR of spectra of compound **4** at room temperature (the peaks below 37 ppm are also shown for clarity).

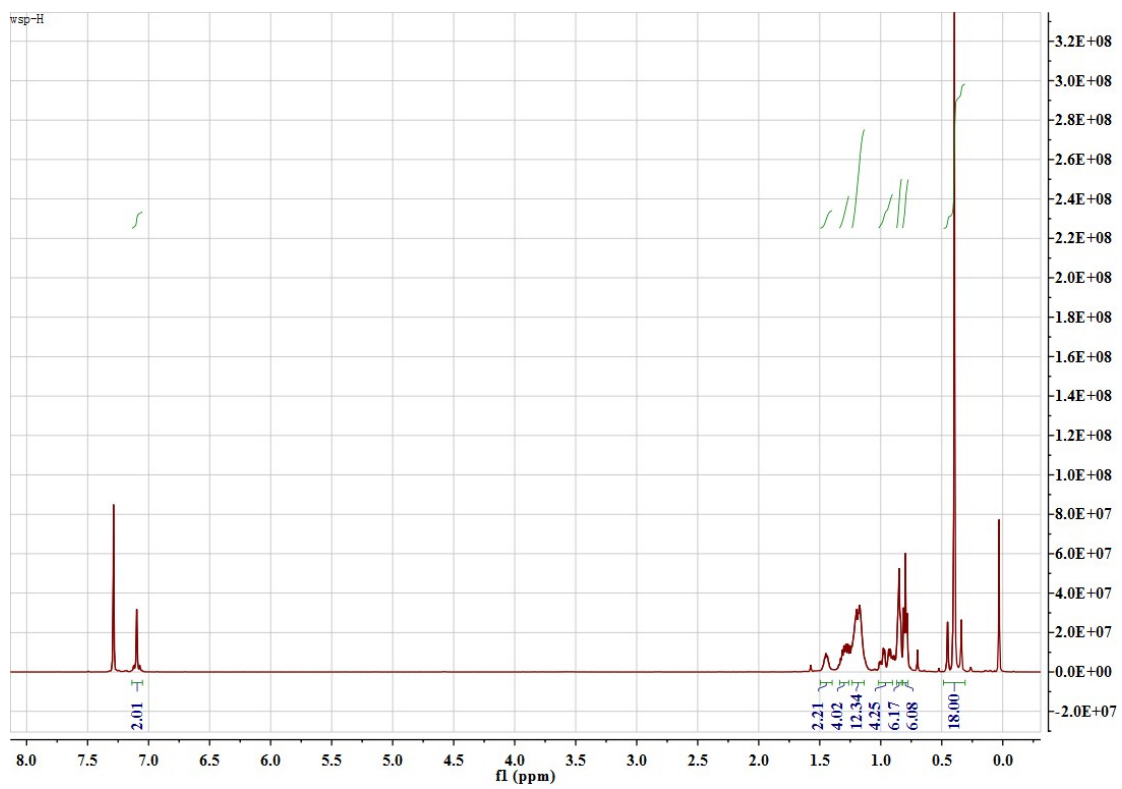
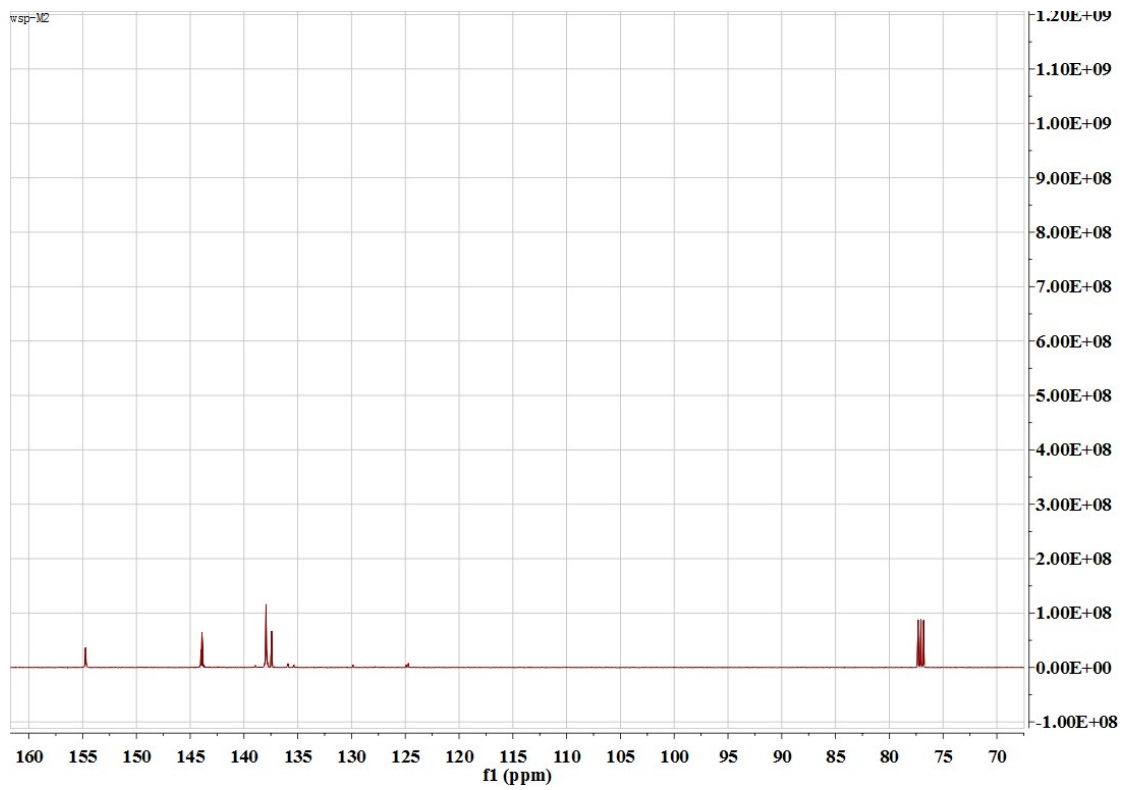
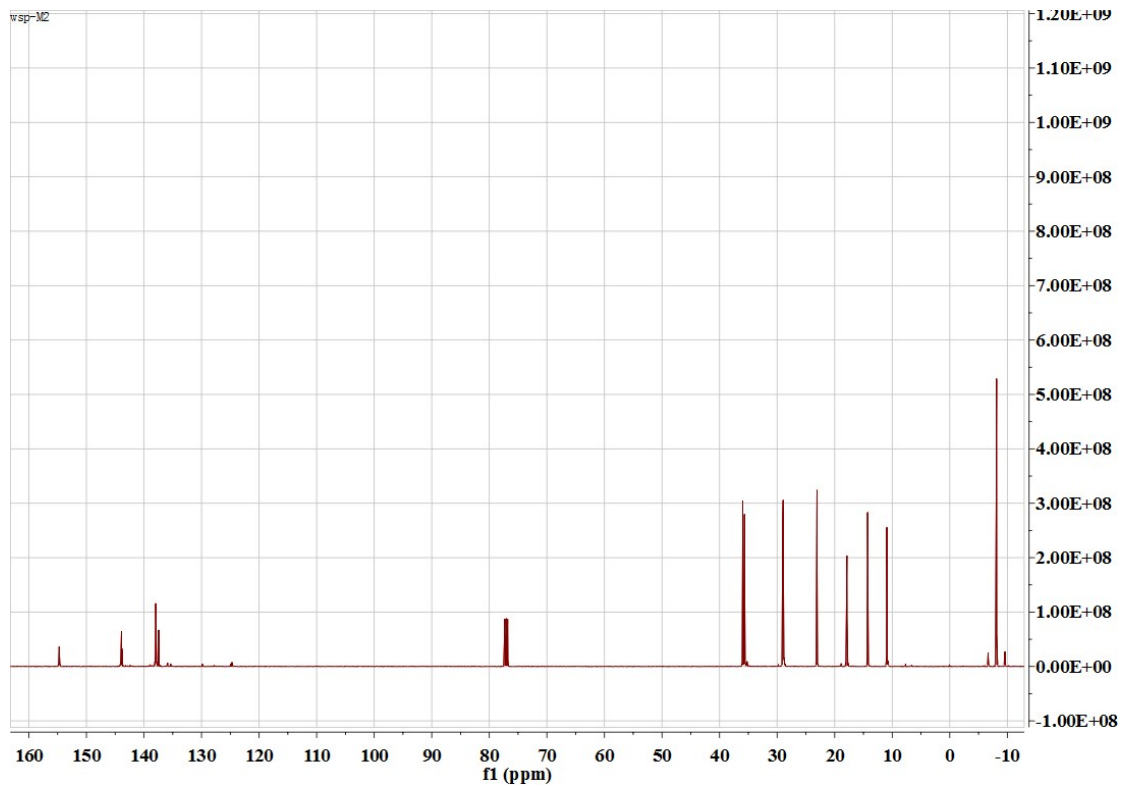


Figure S5. <sup>1</sup>H NMR spectrum of M2 at room temperature.





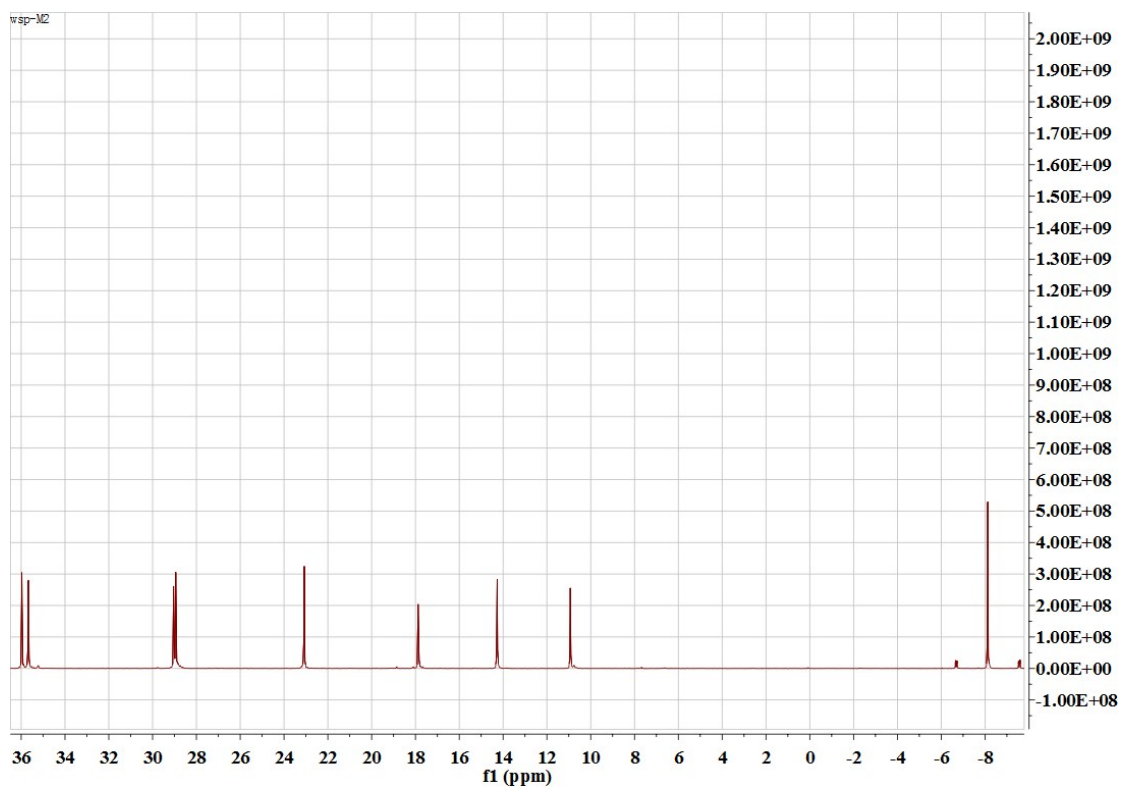


Figure S6.  $^{13}\text{C}$  NMR spectra of M2 at room temperature (The peaks above 70 ppm and below 36 ppm are shown for clarity.).