

Supporting Information

Highly Sensitive OFET Based Room Temperature Operated Gas Sensors Using Thieno[3,2-*b*]thiophene Extended Phthalocyanine Semiconductor

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1. Computational Study

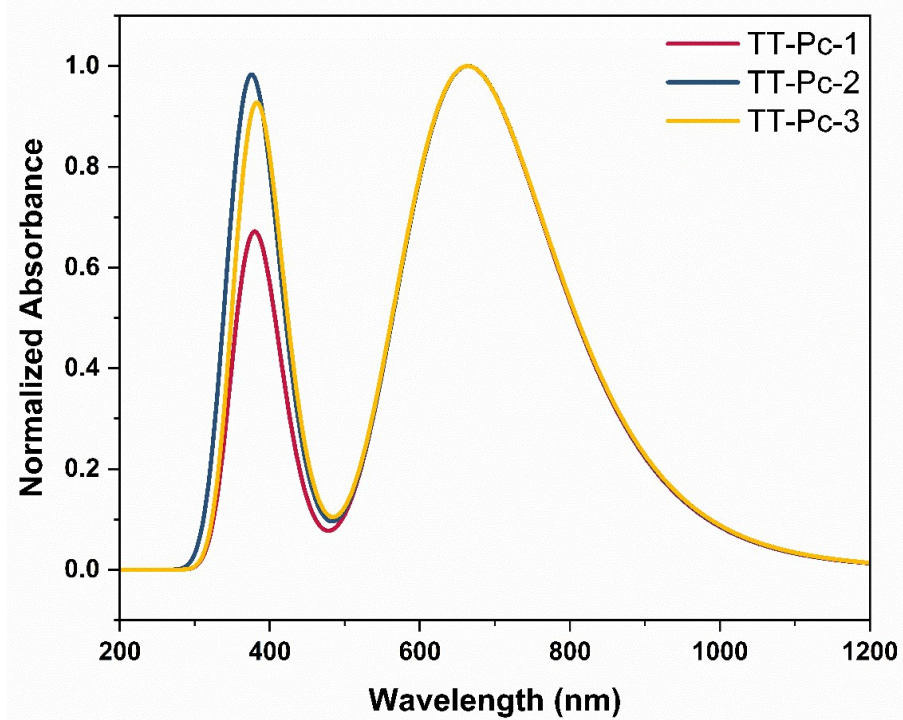


Fig. S1 Normalized absorption spectrums of TT-Pc molecules in the presence of tetrahydrofuran solvent at CAM-B3LYP/6-31G (d, p).

2. OFET Devices

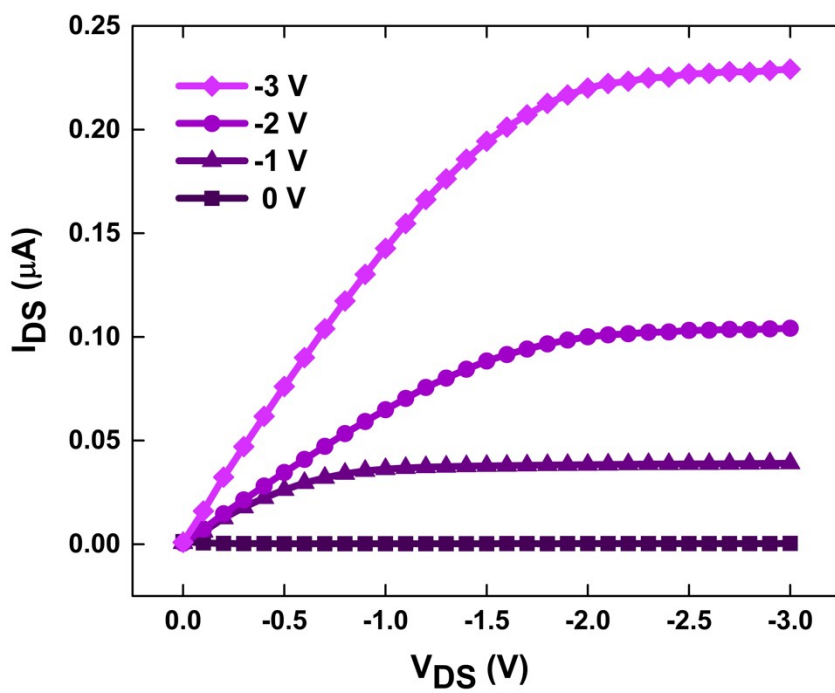


Fig. S2 The leakage current characteristics of TT-Pc OFETs.

3. NMR and Mass Collection

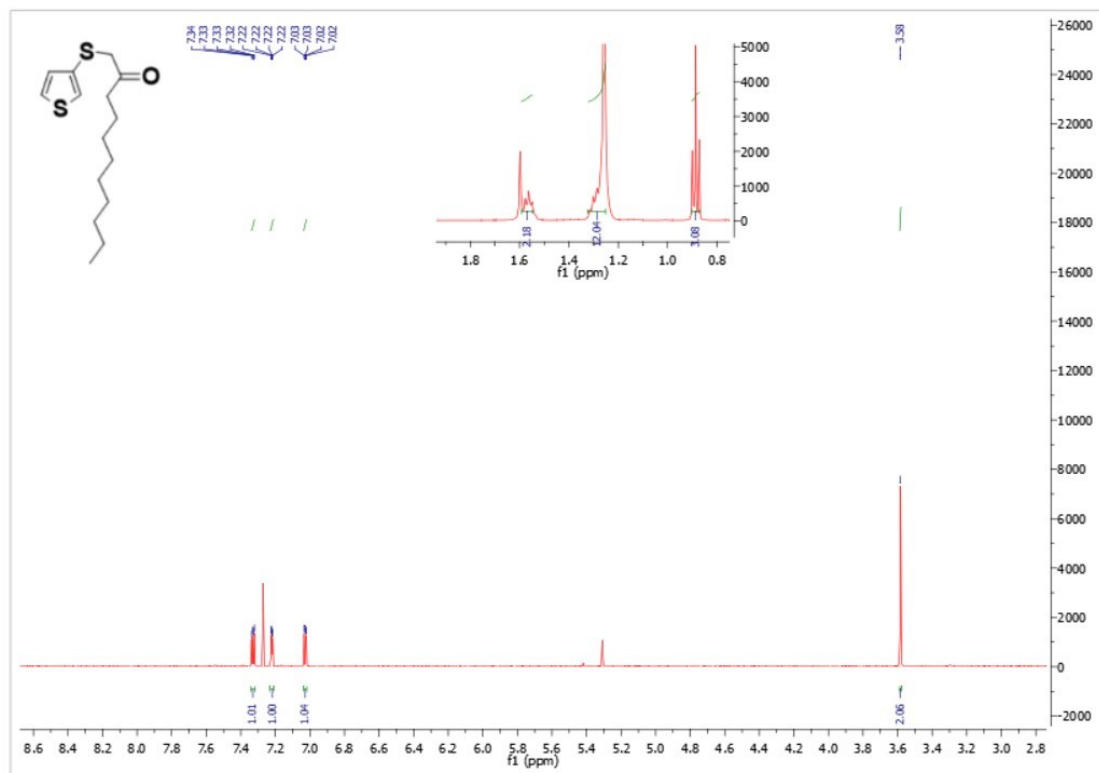


Fig. S3 $^1\text{H-NMR}$ spectra of **2** in CDCl_3 .

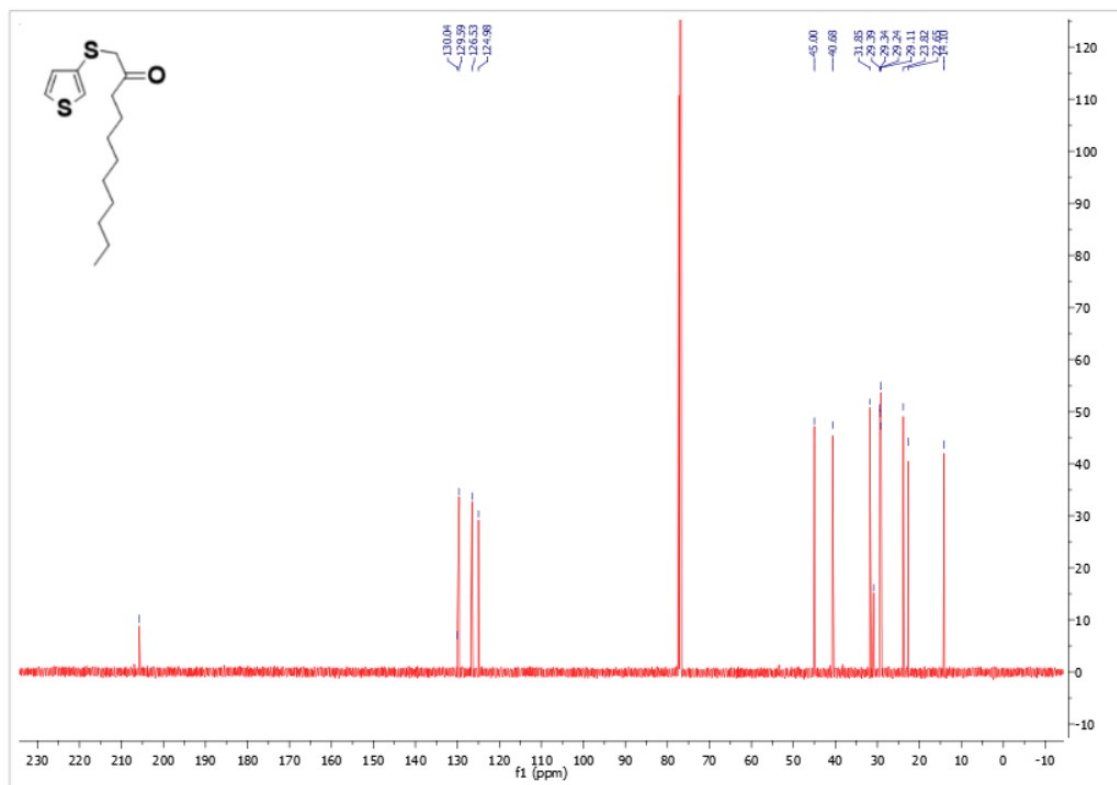


Fig. S4 $^{13}\text{C-NMR}$ spectra of **2** in CDCl_3 .

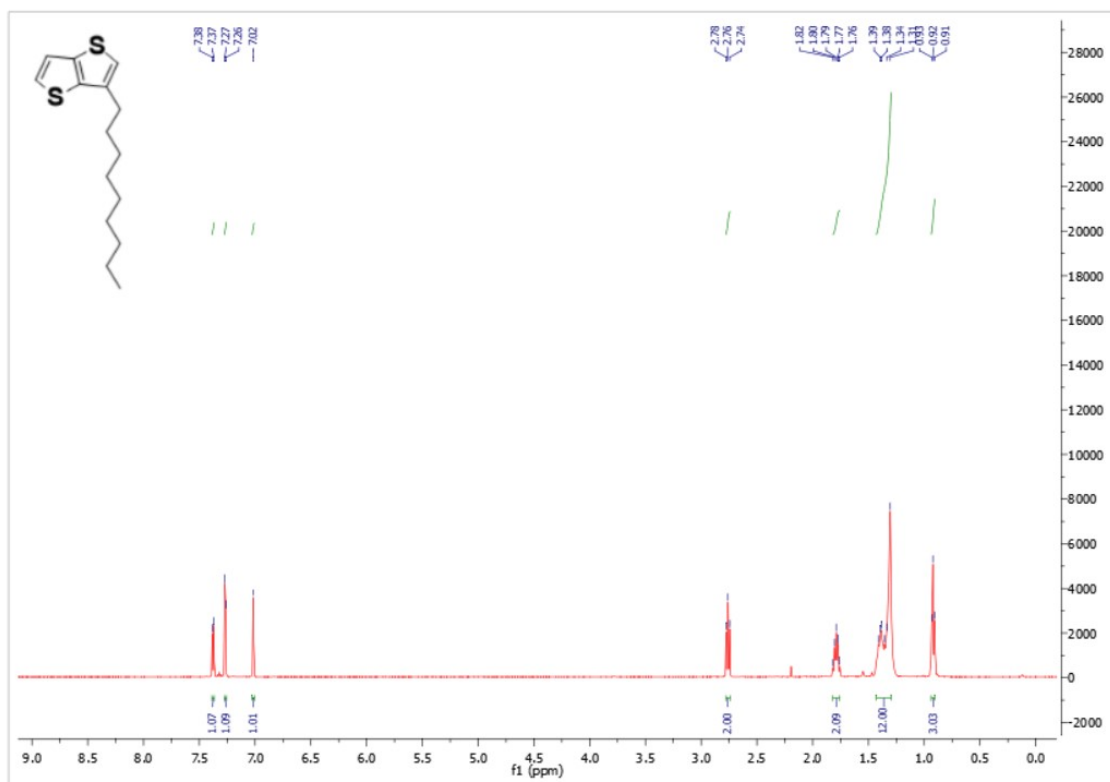


Fig. S5 ¹H-NMR spectra of **3** in CDCl₃.

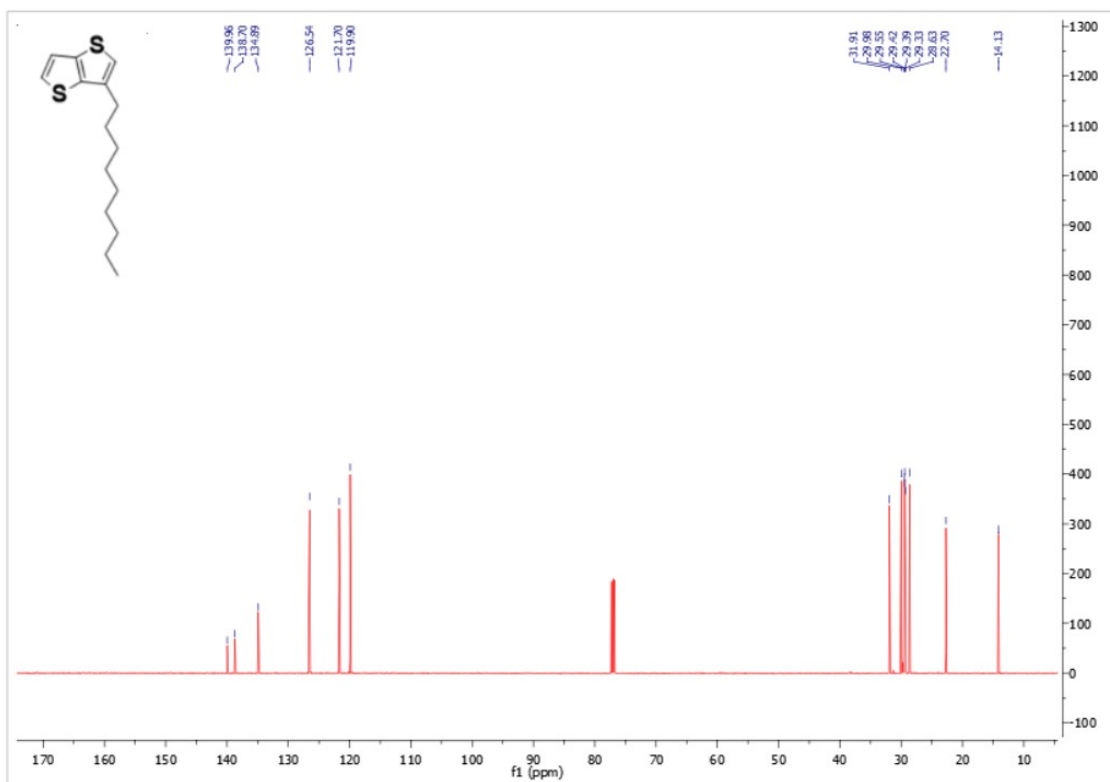


Fig. S6 ¹³C-NMR spectra of **3** in CDCl₃.

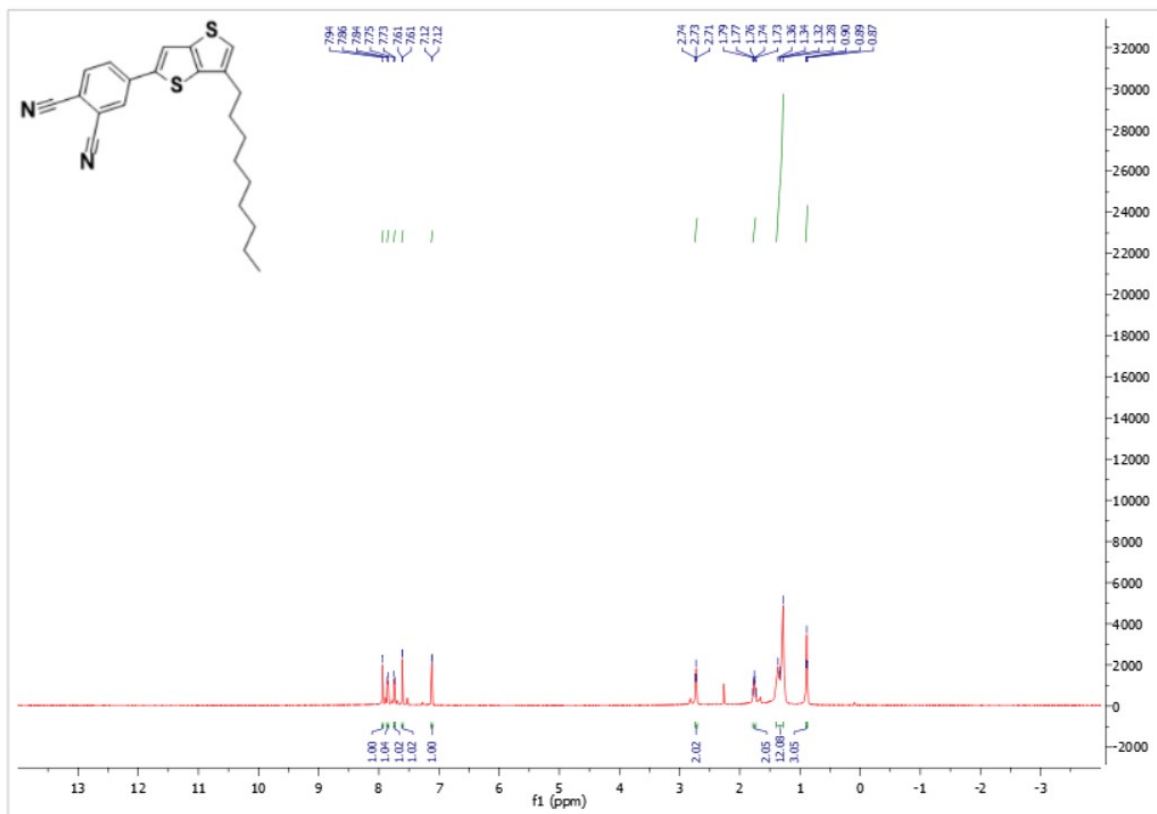


Fig. S7 ¹H-NMR spectra of **5** in CDCl₃.

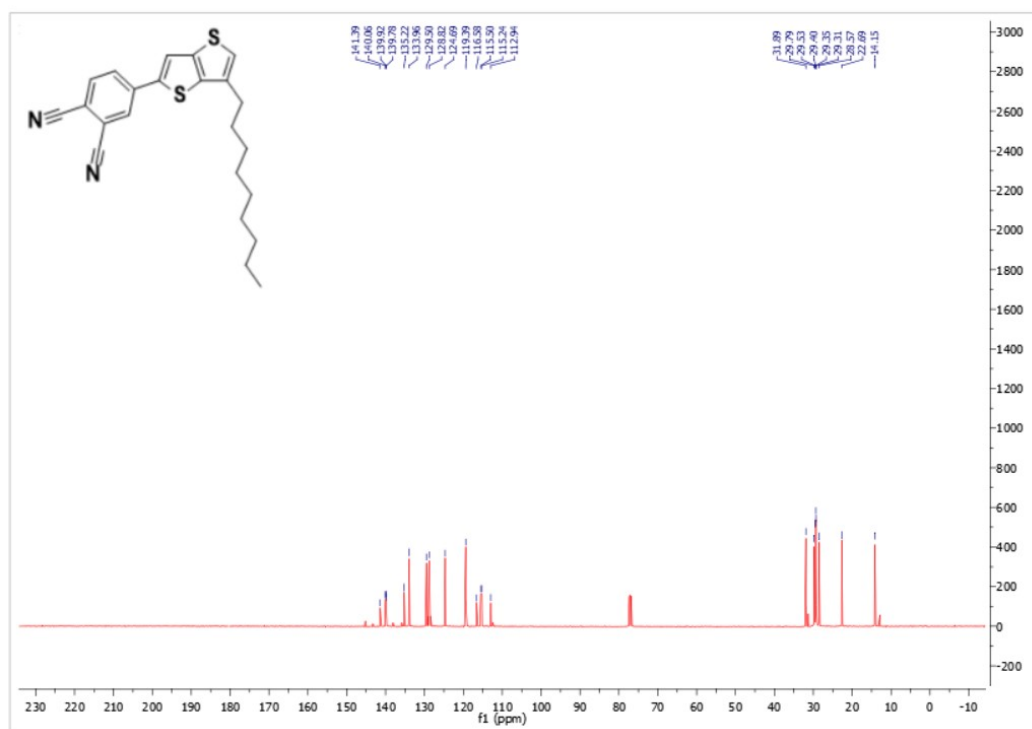


Fig. S8 ¹³C-NMR spectra of **5** in CDCl₃.

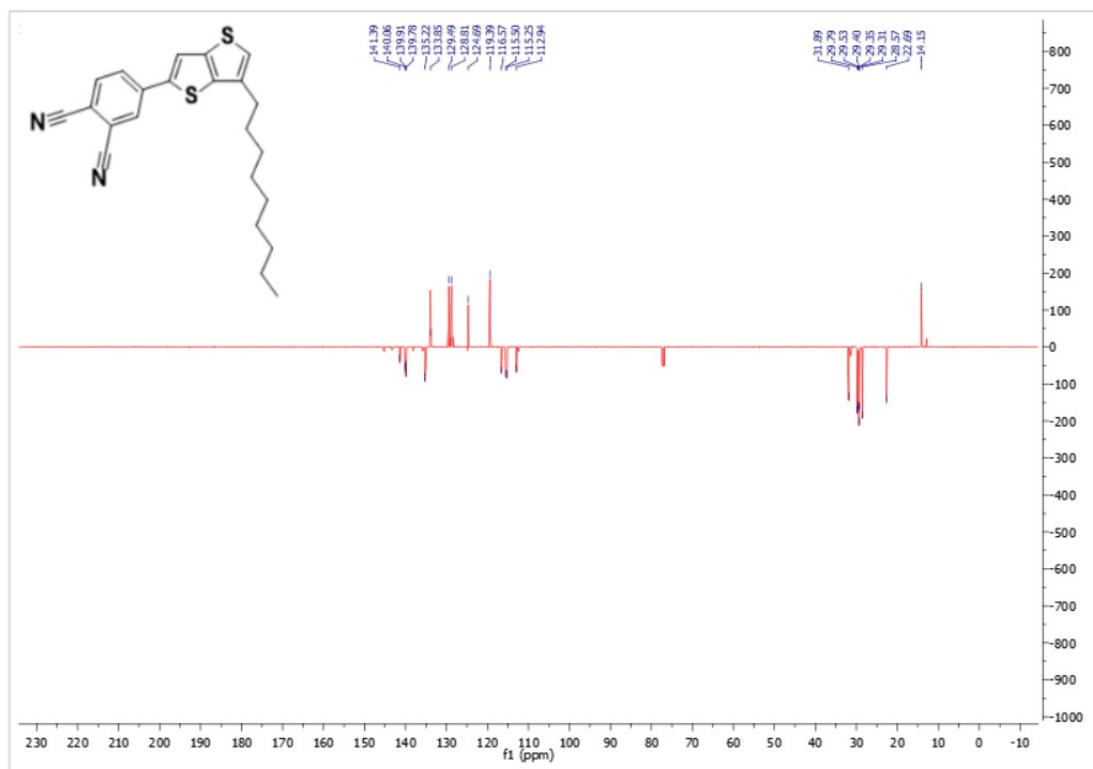


Fig. S9 APT spectra of **5** in CDCl_3 .

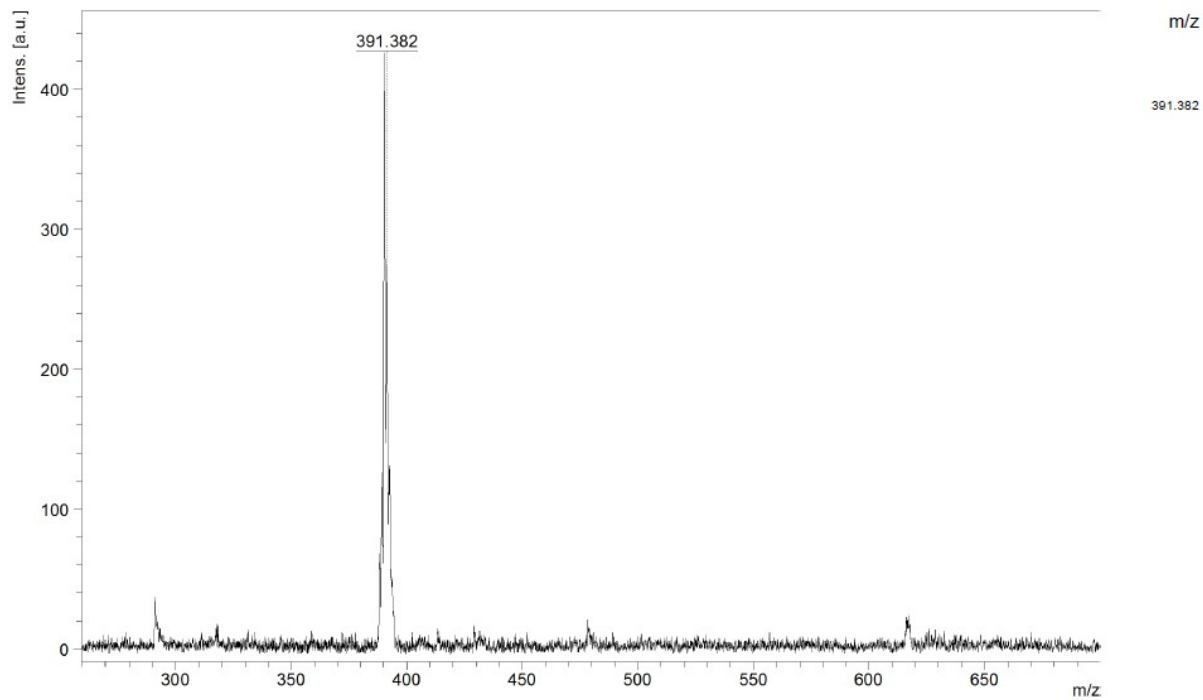


Fig. S10 Mass spectra of **5**.

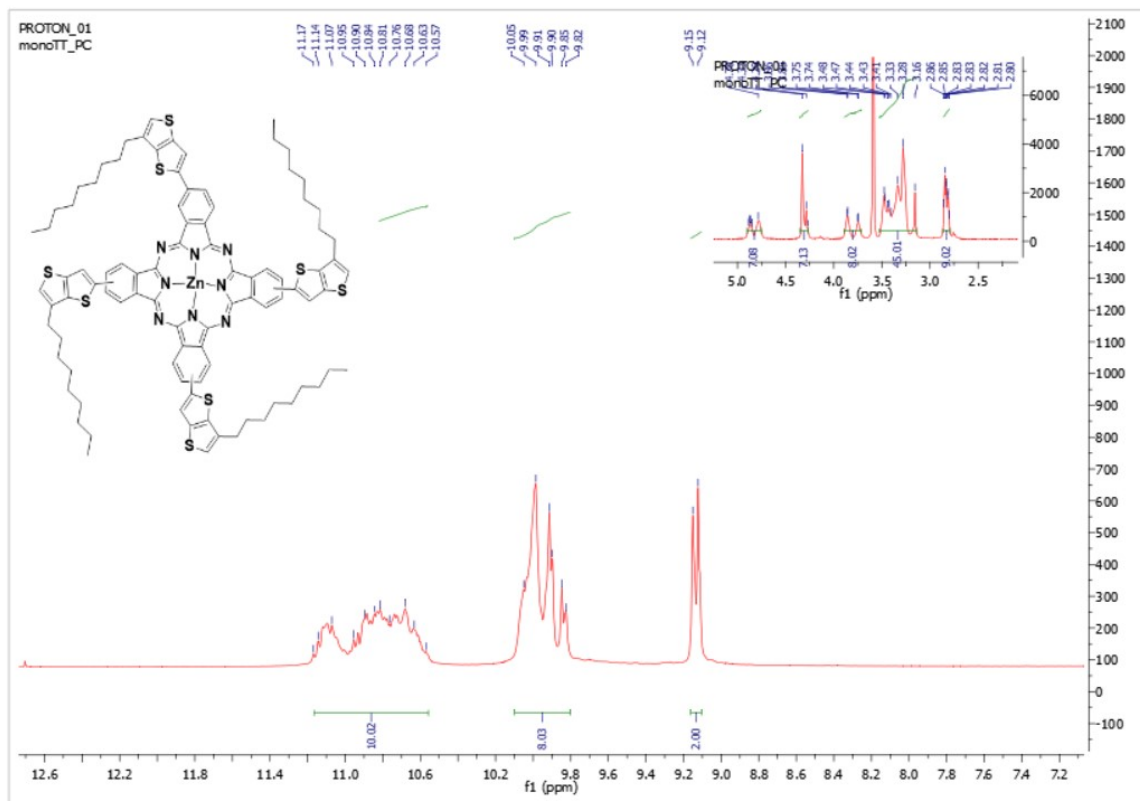


Fig. S11 $^1\text{H-NMR}$ spectra of TT-Pc in THF-d_8 .

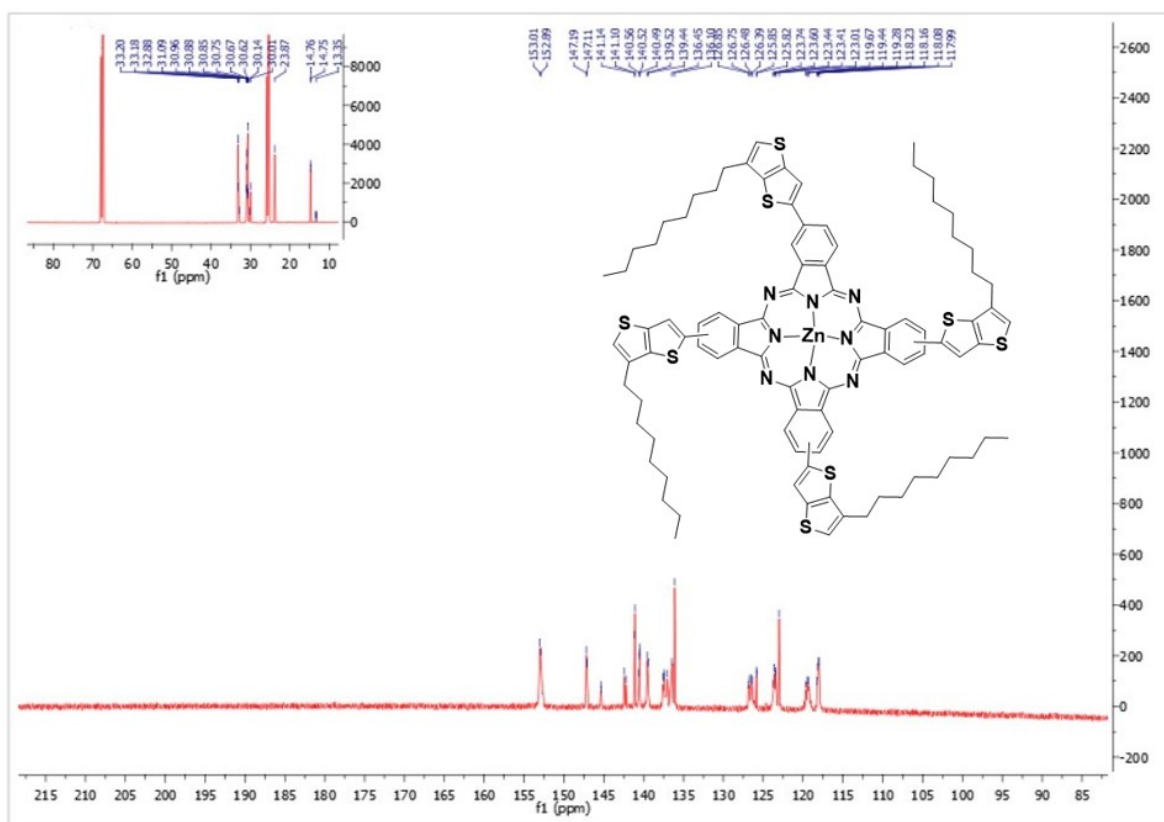


Fig. S12 $^{13}\text{C-NMR}$ spectra of TT-Pc in THF-d_8 .

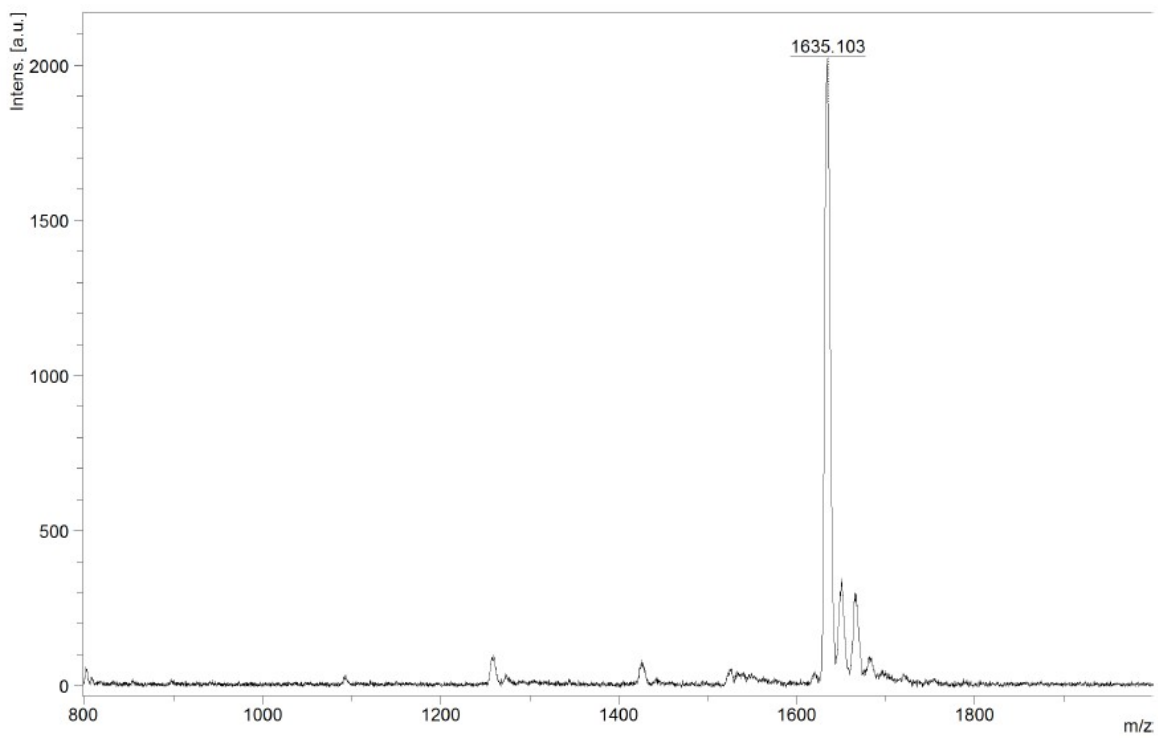


Fig. S13 Mass spectra of **TT-Pc**.