

## Supporting Information

### **A novel pyrenyl-furan hydrazone on paper-based device for the selective detection of trinitrotoluene**

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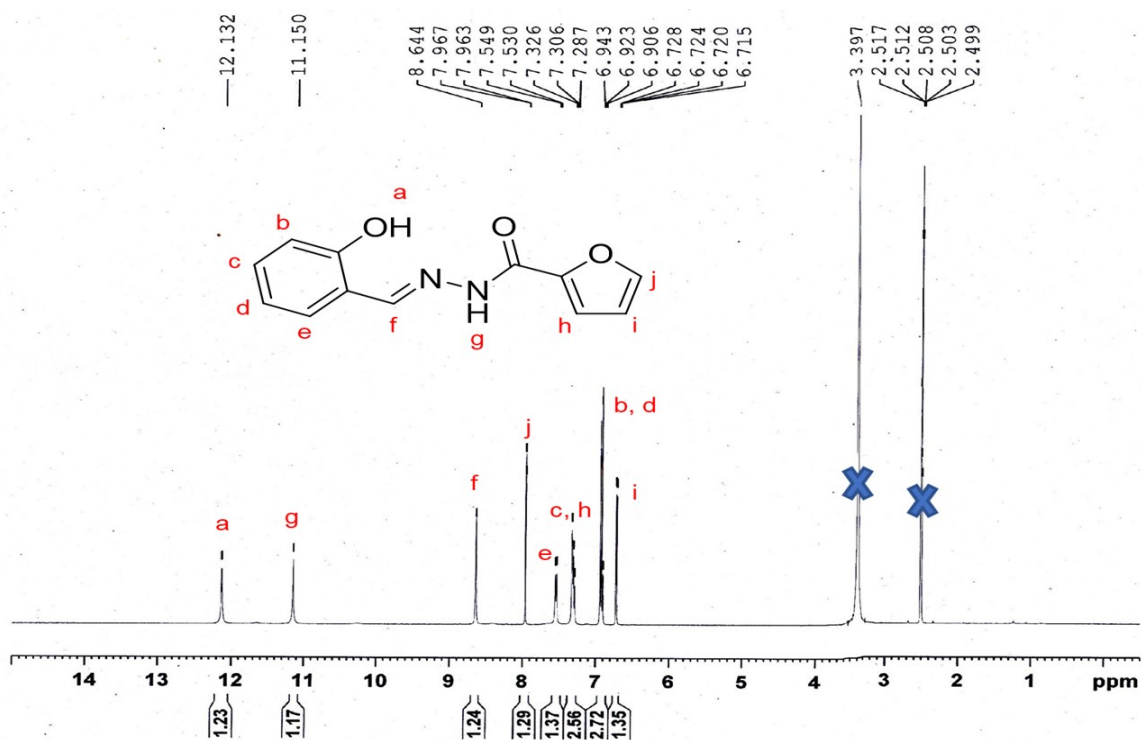


Fig. S1: The <sup>1</sup>H NMR (400 MHz, DMSO-*d*<sub>6</sub>) spectrum of T1.

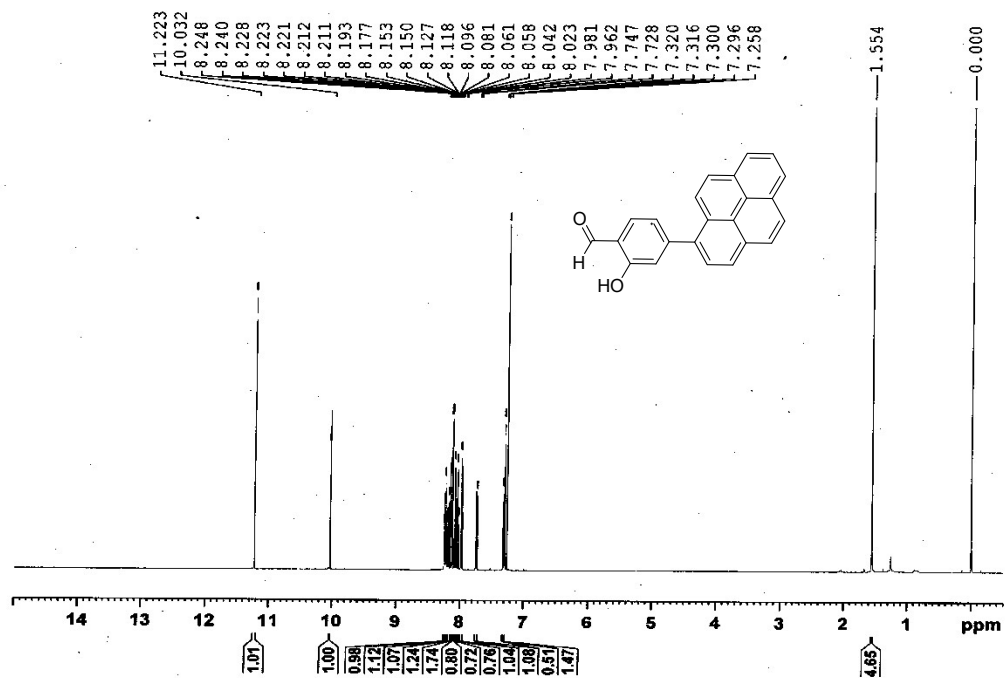
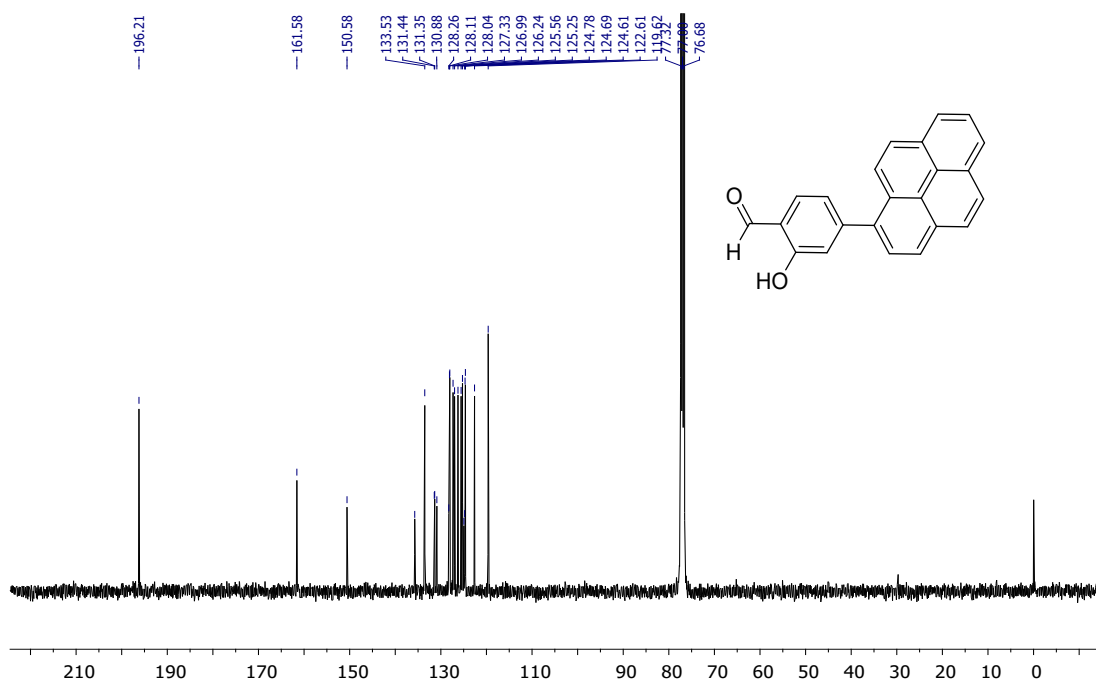
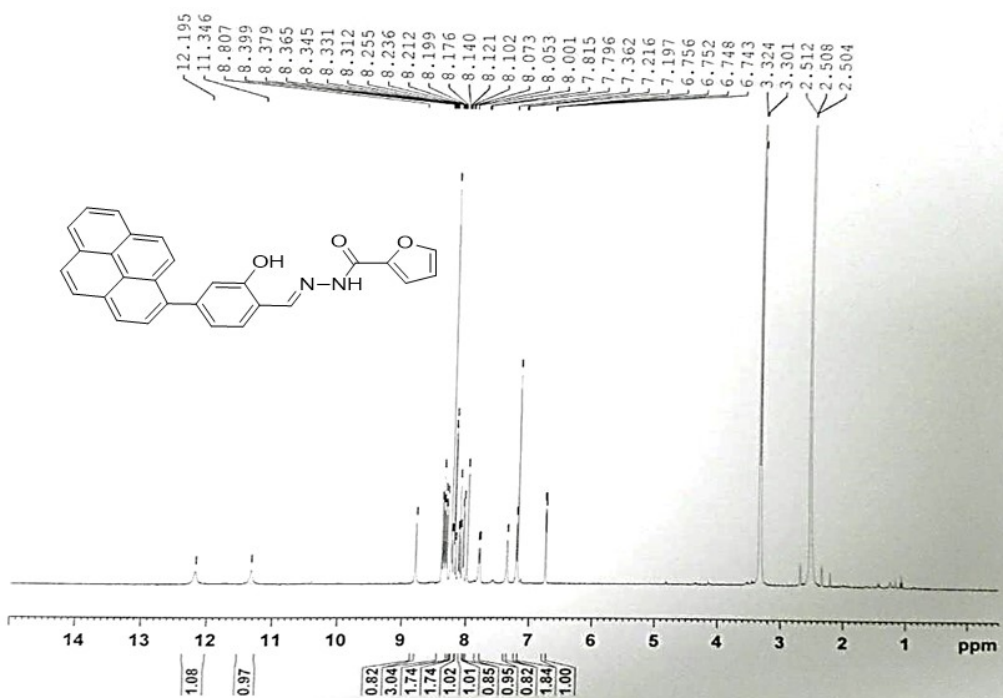


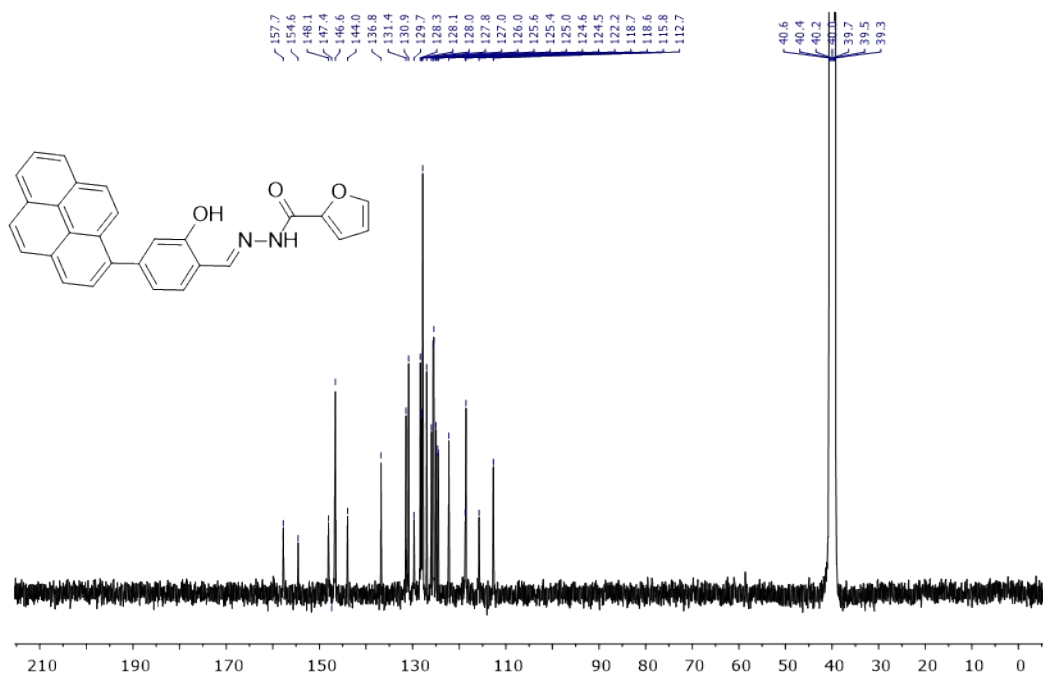
Fig. S2: The <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) spectrum of compound 1.



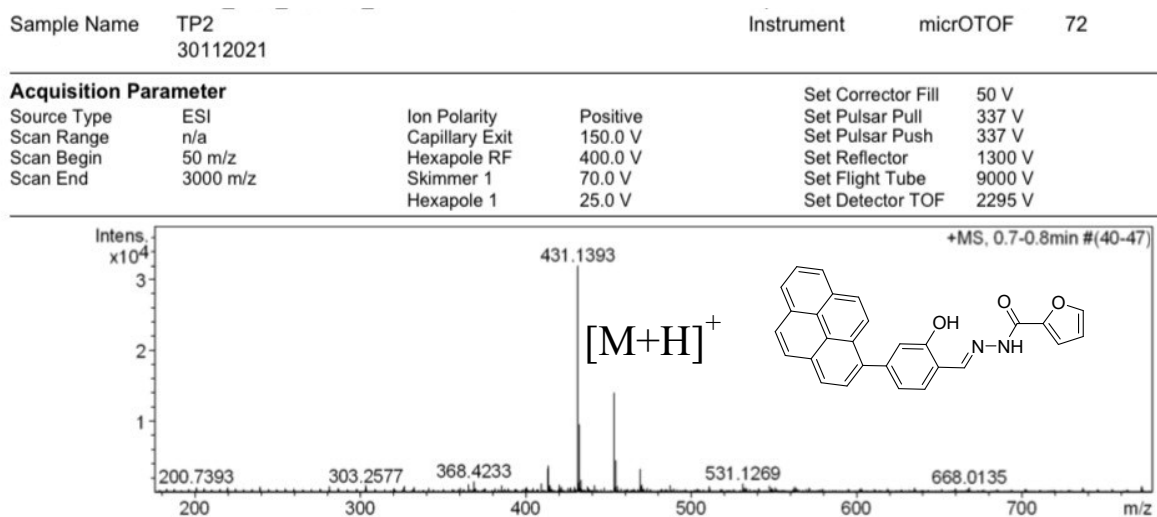
**Fig. S3:** The  $^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ ) spectrum of compound 1.



**Fig. S4:** The  $^1\text{H}$  NMR (400 MHz,  $\text{DMSO}-d_6$ ) spectrum of T2.



**Fig. S5:** The <sup>13</sup>C NMR (100 MHz, DMSO-*d*<sub>6</sub>) spectrum of **T2**.



**Fig. S6:** HRMS spectrum of **T2**.