## **Supplementary Material**

Sequential detection of CN<sup>-</sup> and HSO<sub>4</sub><sup>-</sup> anions in aqueous environment utilizing a new colorimetric azoimine receptor: mimicking logic gate behavior and a security keypad lock

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S8	<sup>1</sup> H NMR spectrum of <b>1</b> + <b>CN</b> <sup>-</sup>
S9	<sup>1</sup> H NMR spectrum of <b>1+ CN</b> <sup>-</sup> <b>+HSO</b> <sub>4</sub> <sup>-</sup>

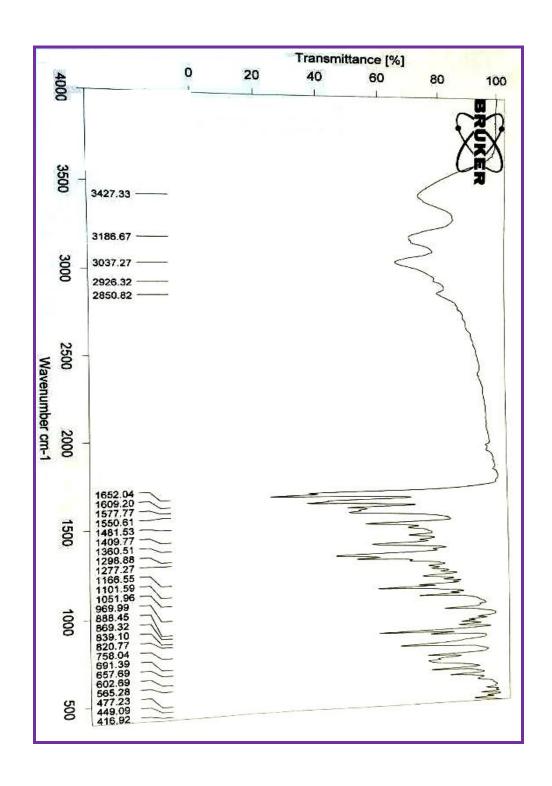


Figure S1. IR spectrum of 1

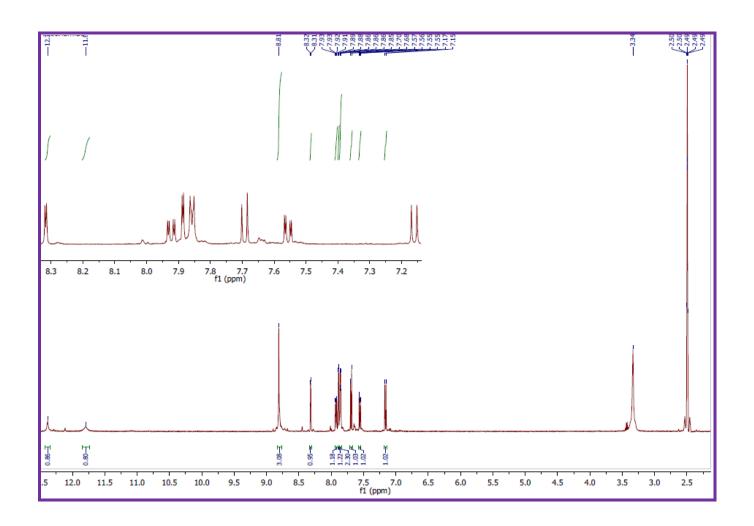
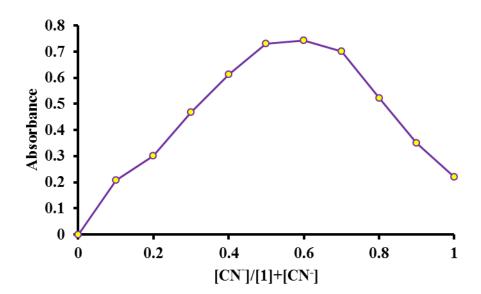
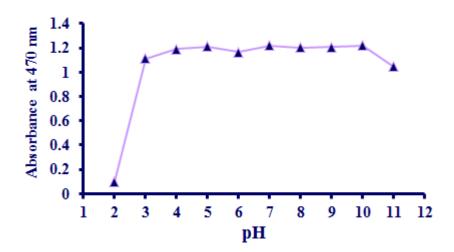


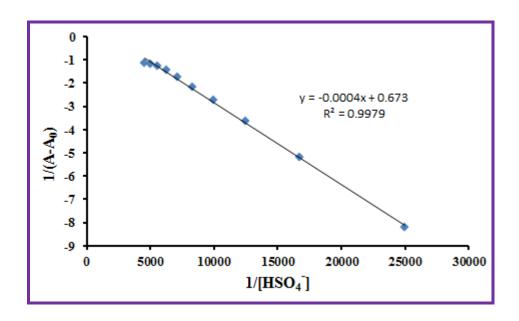
Figure S2. <sup>1</sup>H NMR spectrum of 1



**Figure S3.** Job's plot of **1** with CN<sup>-</sup>



**Figure S4.** Effect of pH on the UV–Vis spectra of 1– CN<sup>-</sup> complex at 470 nm



**Figure S5.** Benesi–Hildebrand plot of sensor 1- CN<sup>-</sup> binding with HSO<sub>4</sub><sup>-</sup> anion

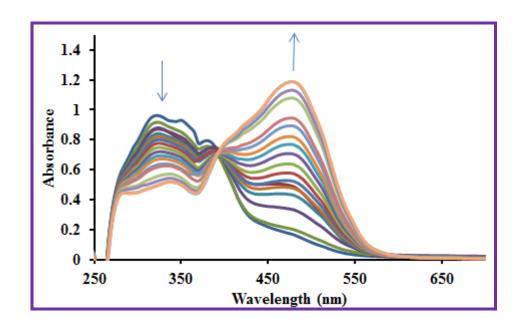


Figure S6. UV-Vis titration of 1 (3×10<sup>-5</sup> mol L<sup>-1</sup>) in 3:2 DMSO-water with NaOH

