

A Turn-on Fluorescent Sensor for Hg²⁺ Based on Graphene Oxide

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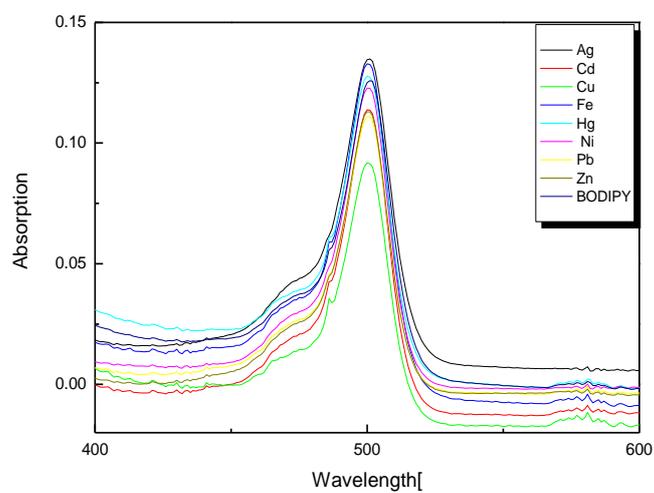
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Supporting information

As shown in figure S1, a DMF solution of BODIPY 1 is selected for the spectral investigation. The free **BODIPY 1** solution exhibits stronger fluorescence than **BGO** (excited at 480 nm) in DMF. The fluorescence enhancement effects of various metal ions on **BODIPY 1** in DMF (20 μ M) were investigated (excitation at 480 nm). As illustrated in Figure S1b, no significant spectral changes of **BODIPY 1** were observed in the presence of Ag⁺, Cd²⁺, Cu²⁺, Fe³⁺, Ni²⁺, Pb²⁺, and Zn²⁺ (0.08mM), respectively. Upon addition of Hg²⁺, the emission band at about 510 nm was quenched about 50%.

(a)



(b)

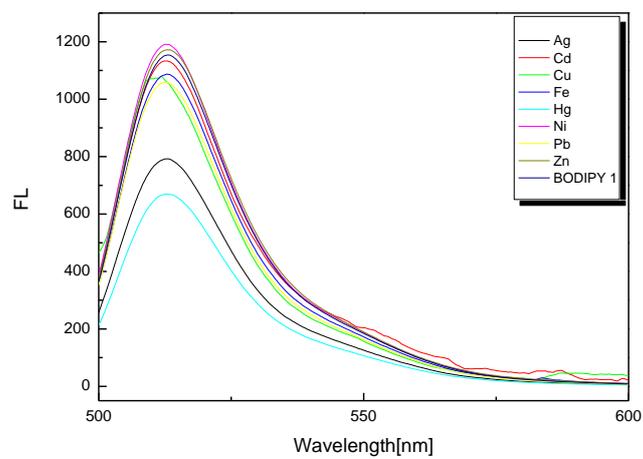


Figure S1. (a) UV-vis spectra and (b) fluorescent spectra (excitation was at 480 nm) for BODIPY 1 (0.

5 $\mu\text{g}/\text{mL}$) in DMF without and with the presence of 20 μM metal ions

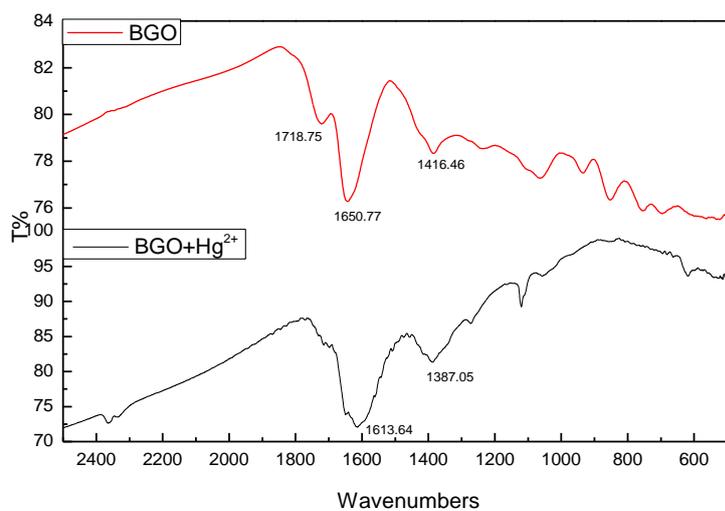


Figure S2. FT-IR spectra of BGO and BGO in presence of Hg²⁺

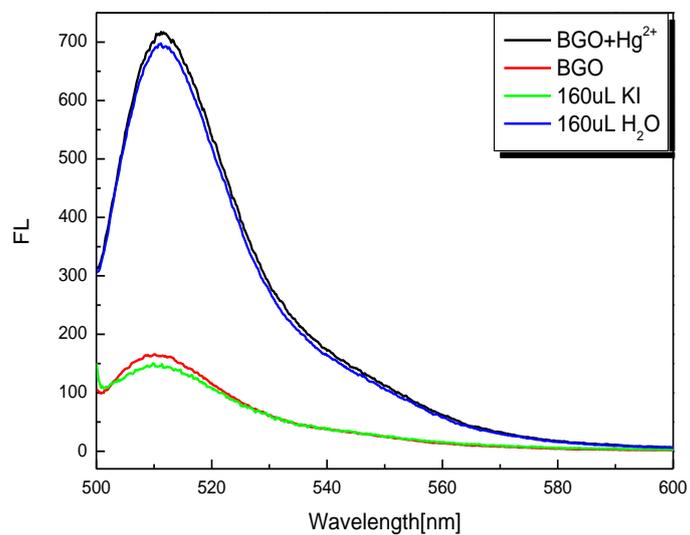


Figure S3. The FL can be reversed by KI

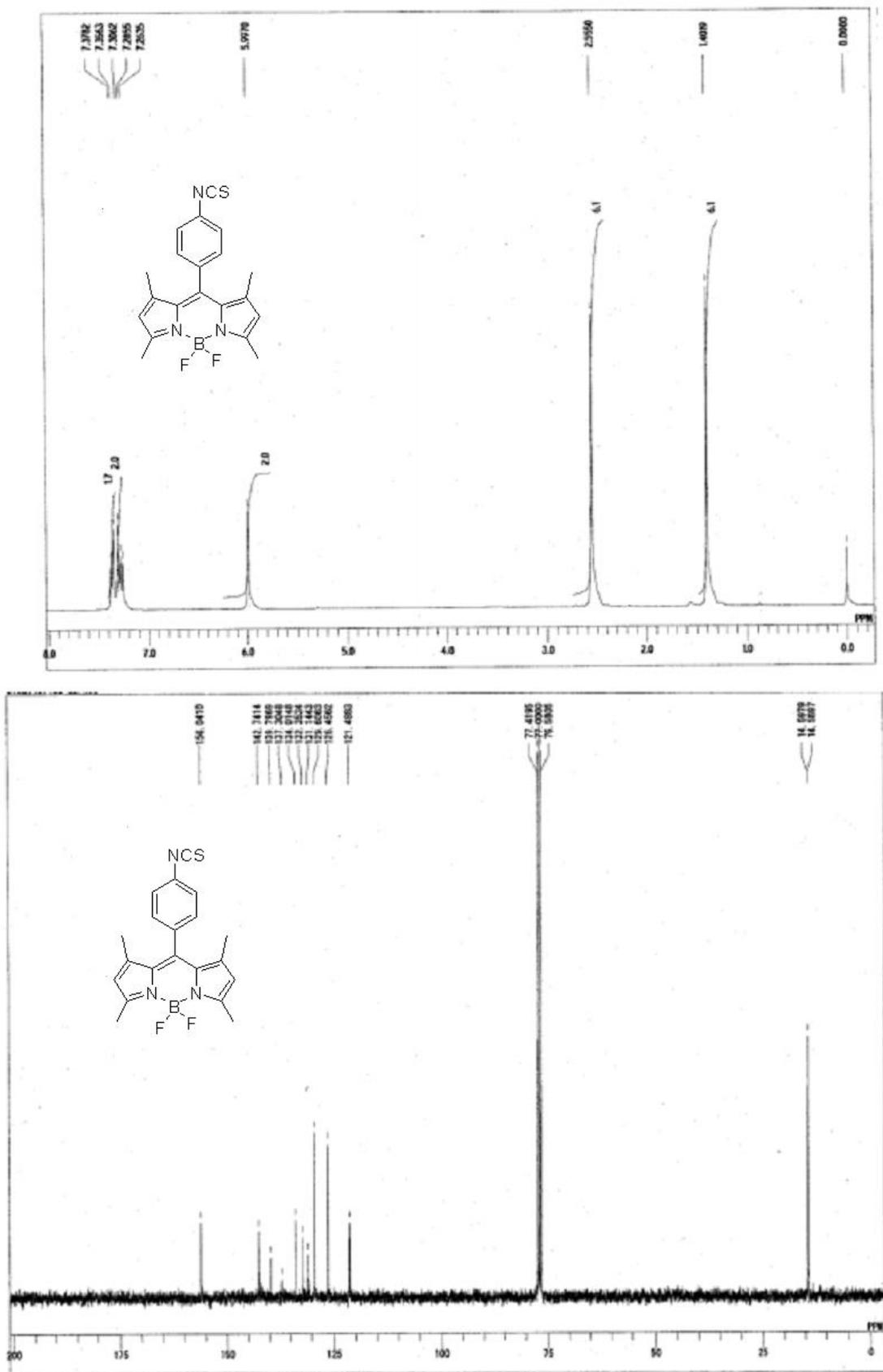


Figure S4. The NMR spectra of BODIPY 1