

Supporting Information for

A ratiometric fluorescence assay based on resonance energy transfer between biomass quantum dots and organic dye for the detection of sulfur dioxide derivatives

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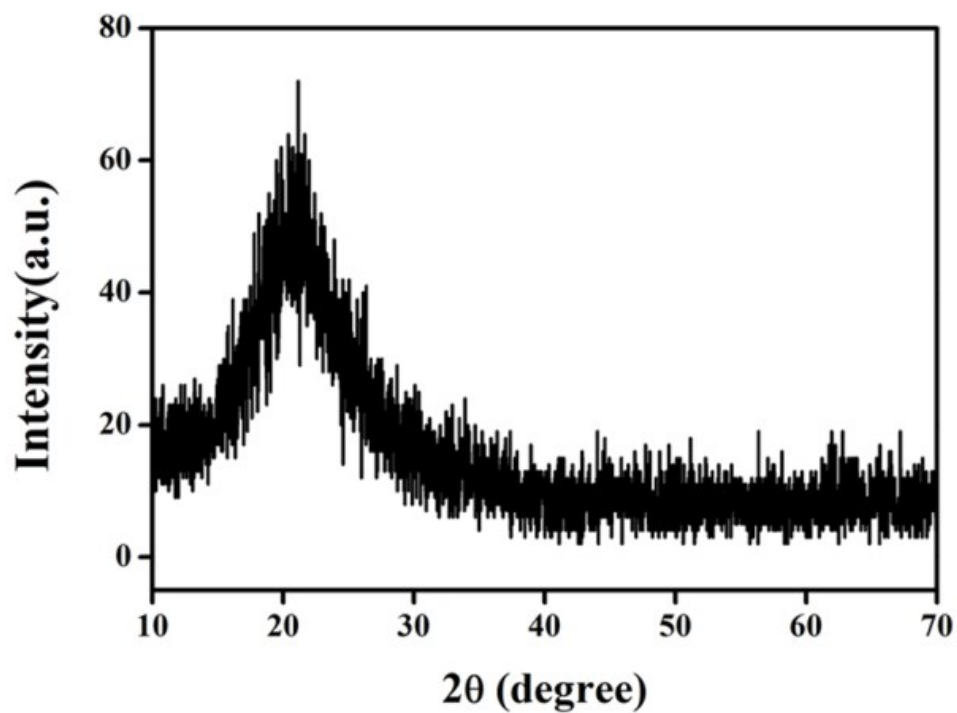


Figure S1. The XRD diffractogram of BQDs

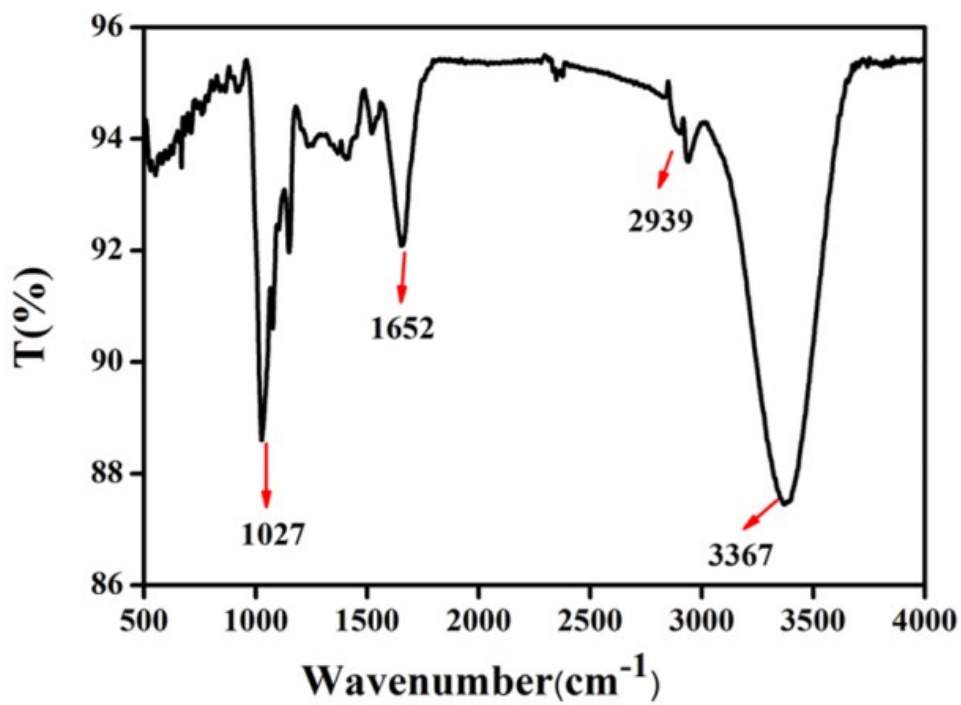


Figure S2. FTIR spectrum of BDQs

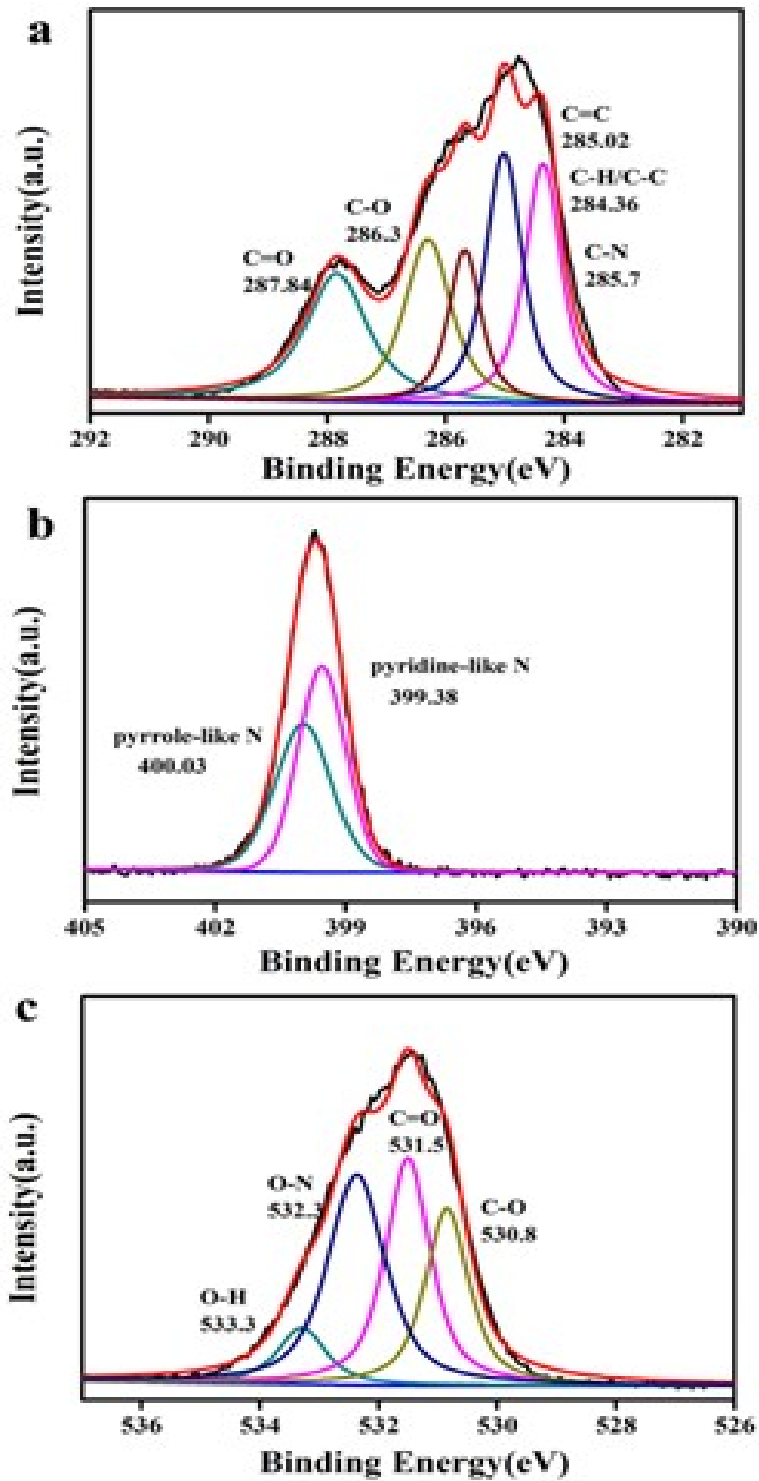


Figure S3. XPS spectrum of NI-BQDs

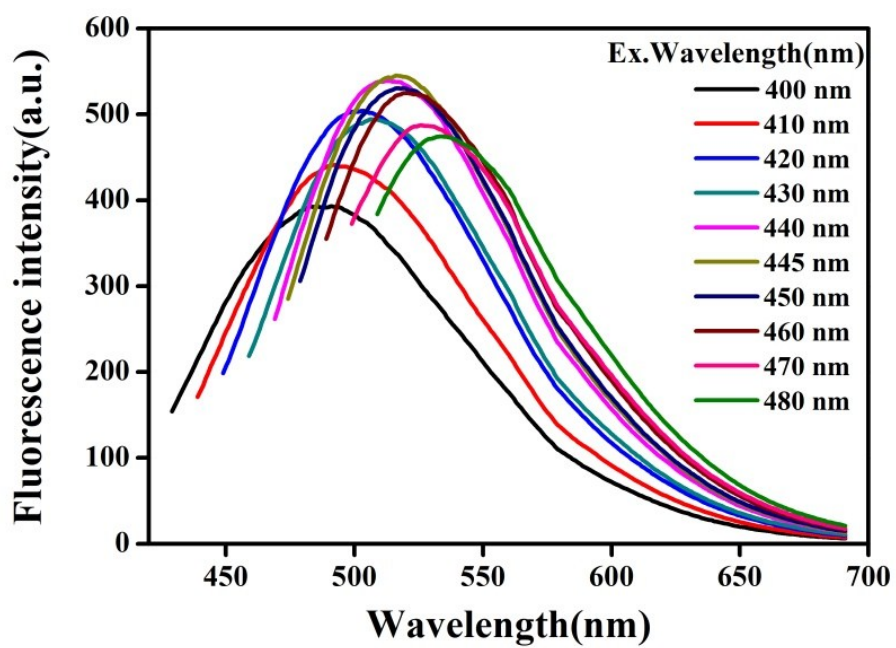


Figure S4. Fluorescence emission spectra of BQDs at different excitation wavelengths.

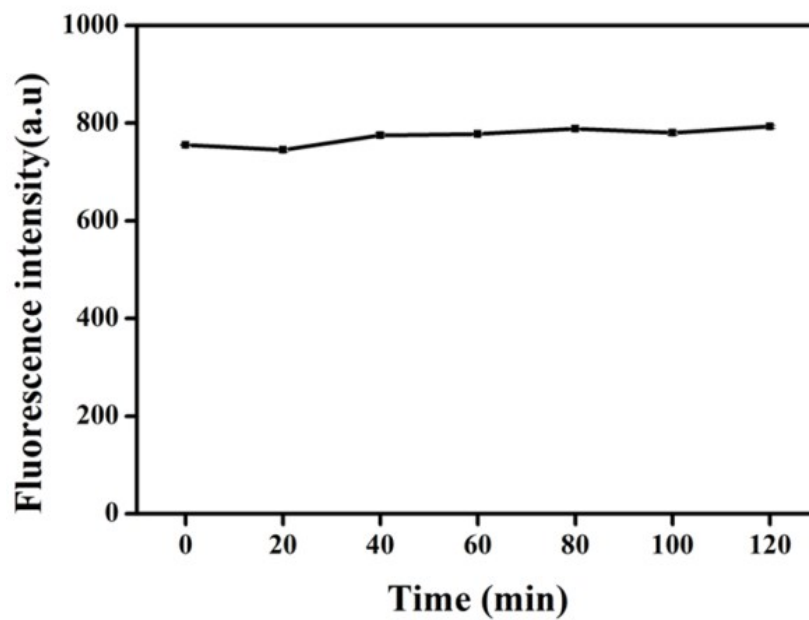


Figure S5. Effects of UV lamp exposure time on the stability of BQDs.

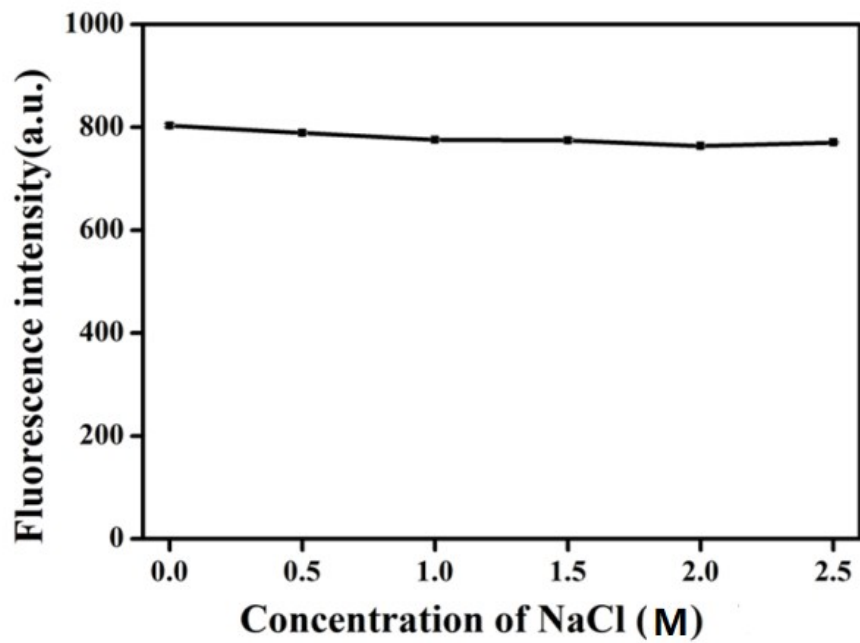


Figure S6. Effects of solution ionic strength on the stability of BQDs.

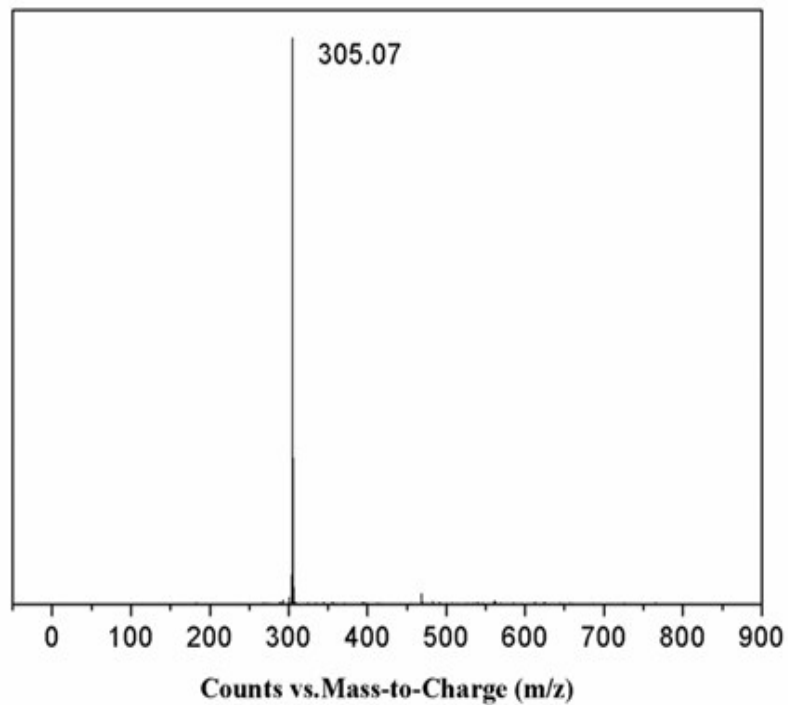


Figure S7. MS spectrum of the DMI.

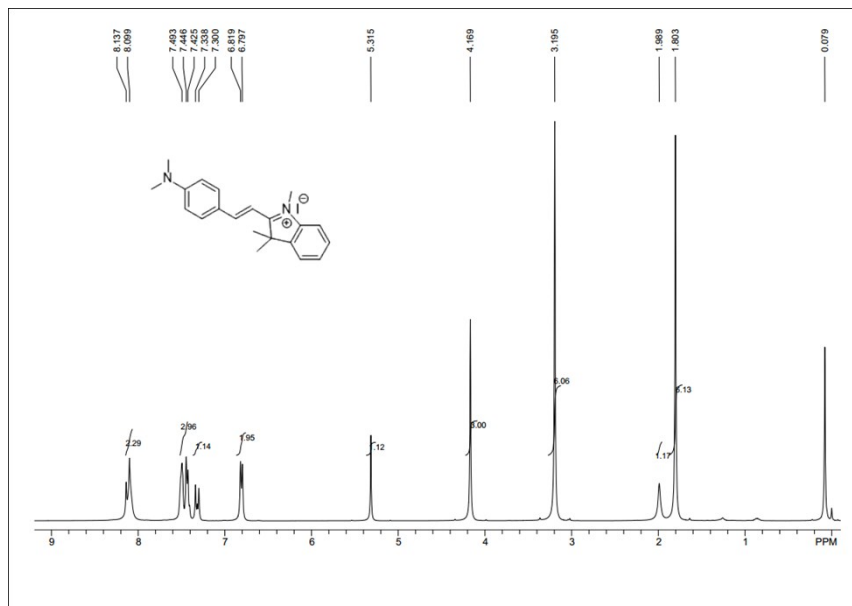


Figure S8. ^1H NMR spectrum of DMI.

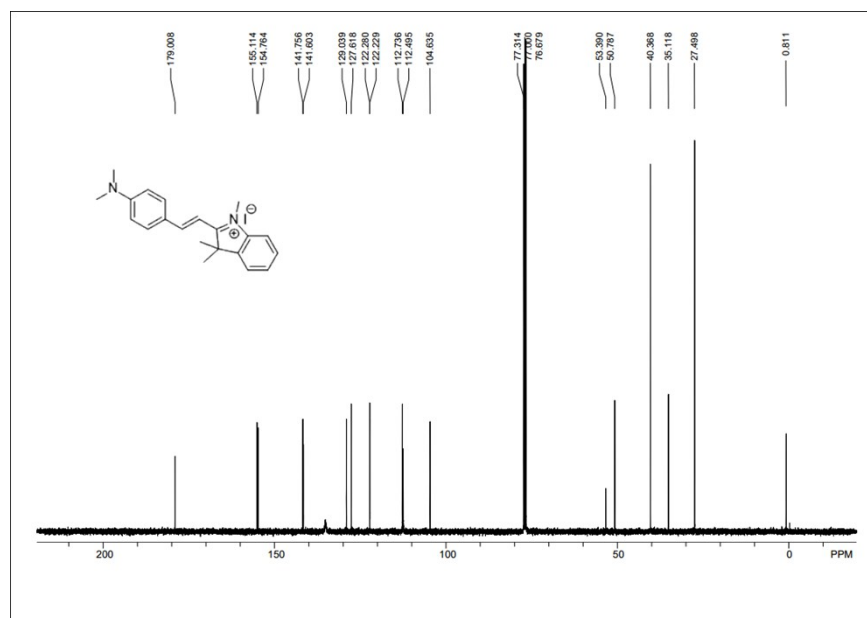


Figure S9. ^{13}C NMR spectrum of DMI.

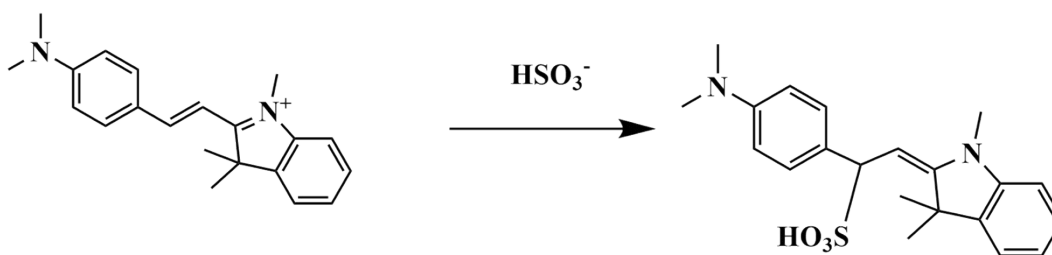


Figure S10. Reaction of HSO_3^- with DMI.

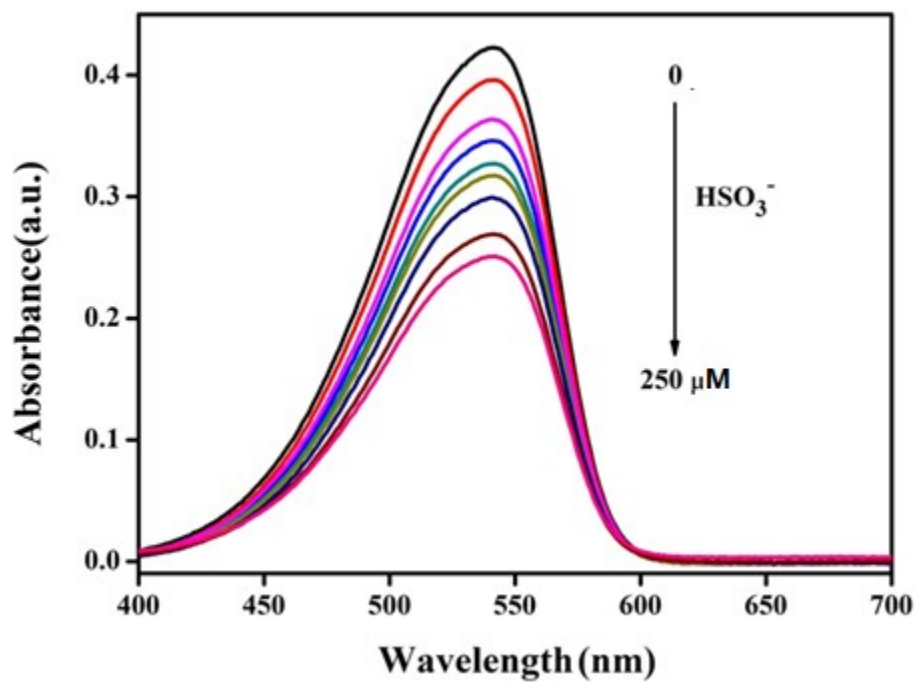


Figure S11. Absorption spectra of DMI in the presence of HSO_3^- at different concentrations.

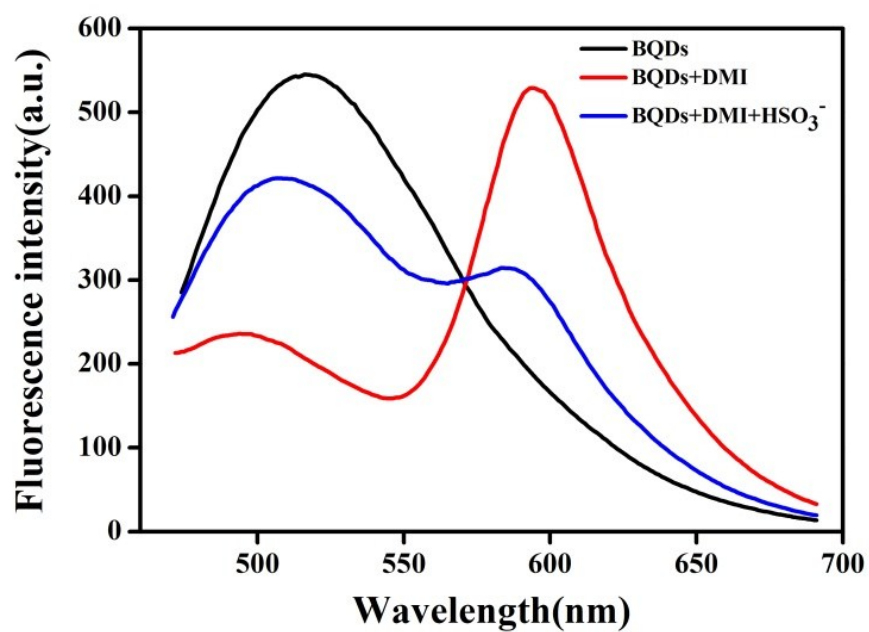


Figure S12. FRET between BQDs and DMI.

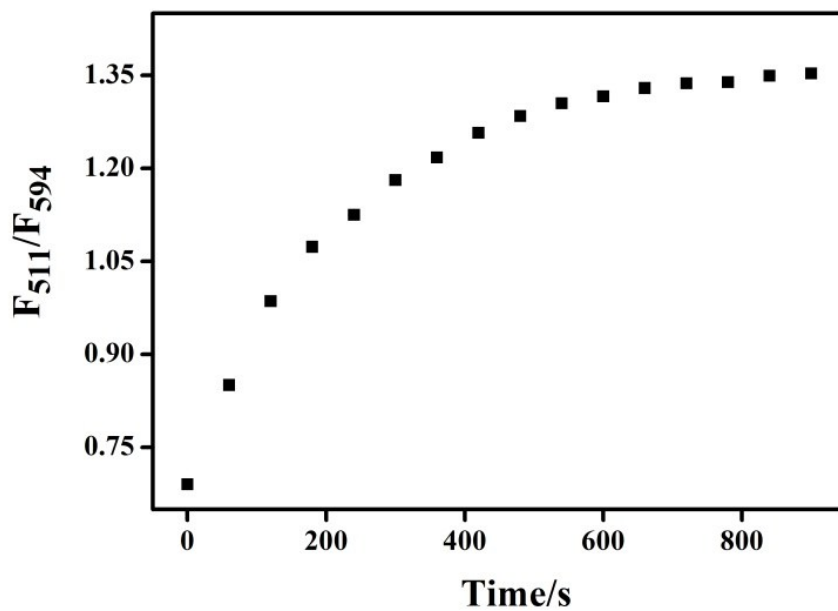


Figure S13. The response time of HSO₃⁻ to the FRET system.