

Novel Ratiometric Turn-on Fluorescent Probe for Selective Sensing of Cyanide ions, Effect of substitution and Bio-imaging Studies

Gopal Balamurugan^a, Parthiban Venkatesan^b, Shu Pao Wu^b, Sivan Velmathi^{a,*}

^aOrganic and polymer synthesis Laboratory, Department of Chemistry, National Institute of Technology, Tiruchirappalli-620015, India.

^bDepartment of Applied Chemistry, National Chiao Tung University, Hsinchu, Taiwan

*Corresponding Author velmathis@nitt.edu, svelmathi@hotmail.com

Supporting Information

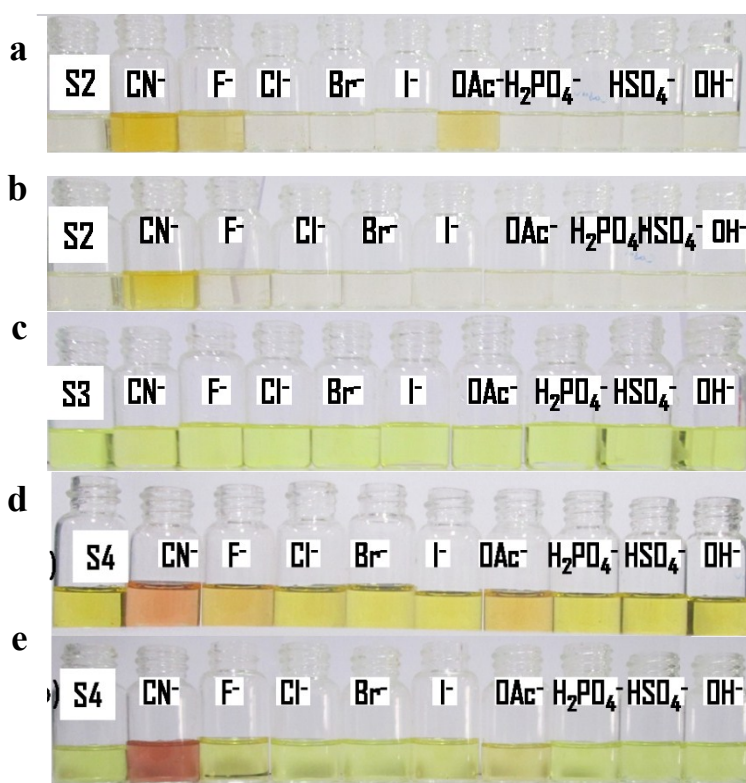


Fig. A1 (a) Naked eye sensing of **S2** (5×10^{-5} M in ACN) with 200 μ L of anions (1.5×10^{-3} M in ACN) (b) Naked eye sensing of **S2** (5×10^{-5} M in 3% aq. ACN) with 200 μ L of anions (1.5×10^{-3} M in H₂O) (c) Naked eye sensing of **S3** (5×10^{-5} M in ACN) with 200 μ L of anions (1.5×10^{-3} M in ACN) (d) Naked eye sensing of **S4** (5×10^{-5} M in ACN) with 200 μ L of anions (1.5×10^{-3} M in ACN) (e) Naked eye sensing of **S4** (5×10^{-5} M in 3% aq. ACN) with 200 μ L of anions (1.5×10^{-3} M in H₂O)

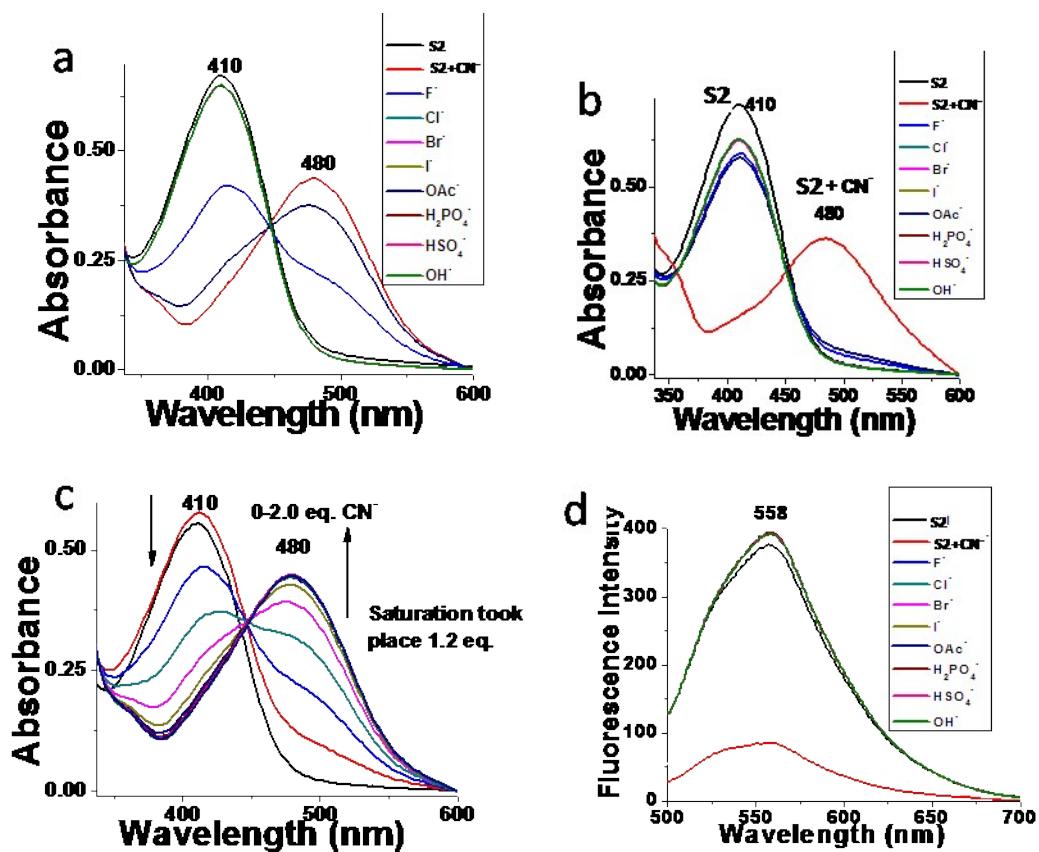


Fig. A2 (a) UV-vis spectral studies of S2 (5×10^{-5} M in ACN) with 200 μ L of anions (1.5×10^{-3} M in ACN) (b) UV-vis spectral studies of S2 (5×10^{-5} M in 97:3 ACN: water) with 200 μ L of anions (1.5×10^{-3} M in H₂O) (c) Incremental addition of CN⁻ to S2 (d) Photoluminescence studies of S2 (5×10^{-5} M in 97:3 ACN: water) with 200 μ L of anions (1.5×10^{-3} M in H₂O)

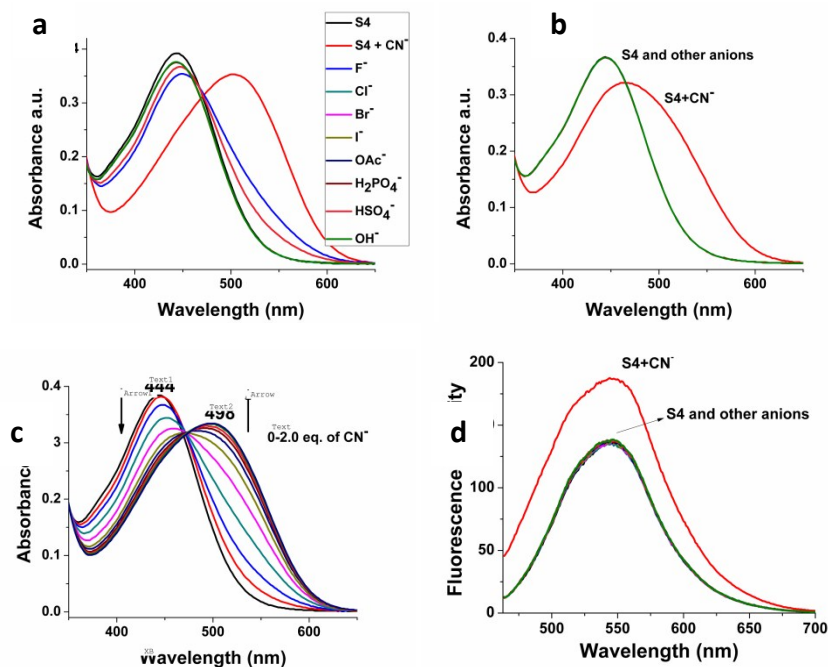


Fig. A3 (a) UV-vis spectral studies of **S4** (5×10^{-5} M in ACN) with 200 μL of anions (1.5×10^{-3} M in ACN) (b) UV-vis spectral studies of **S4** (5×10^{-5} M in 97:3 ACN: water) with 200 μL of anions (1.5×10^{-3} M in H₂O) (c) Incremental addition of CN⁻ to **S4** (d) Photoluminescence studies of **S4** (5×10^{-5} M in 97:3 ACN: water) with 200 μL of anions (1.5×10^{-3} M in H₂O)