

***Ortho*-phenylenediamine-based a new cleft for selective sensing of H_2PO_4^- and ATP**

Kumares Ghosh*, Indrajit Saha

Department of Chemistry, University of Kalyani, Kalyani, Nadia-741235, India,

Email: ghosh_k2003@yahoo.co.in

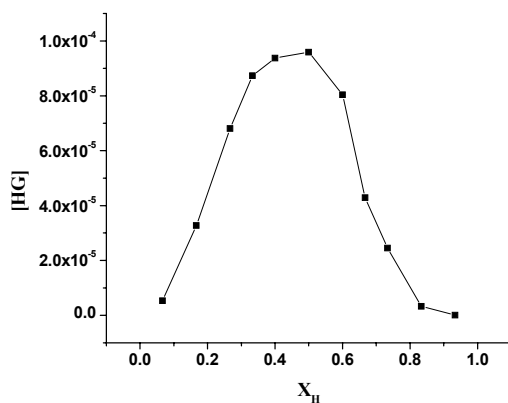
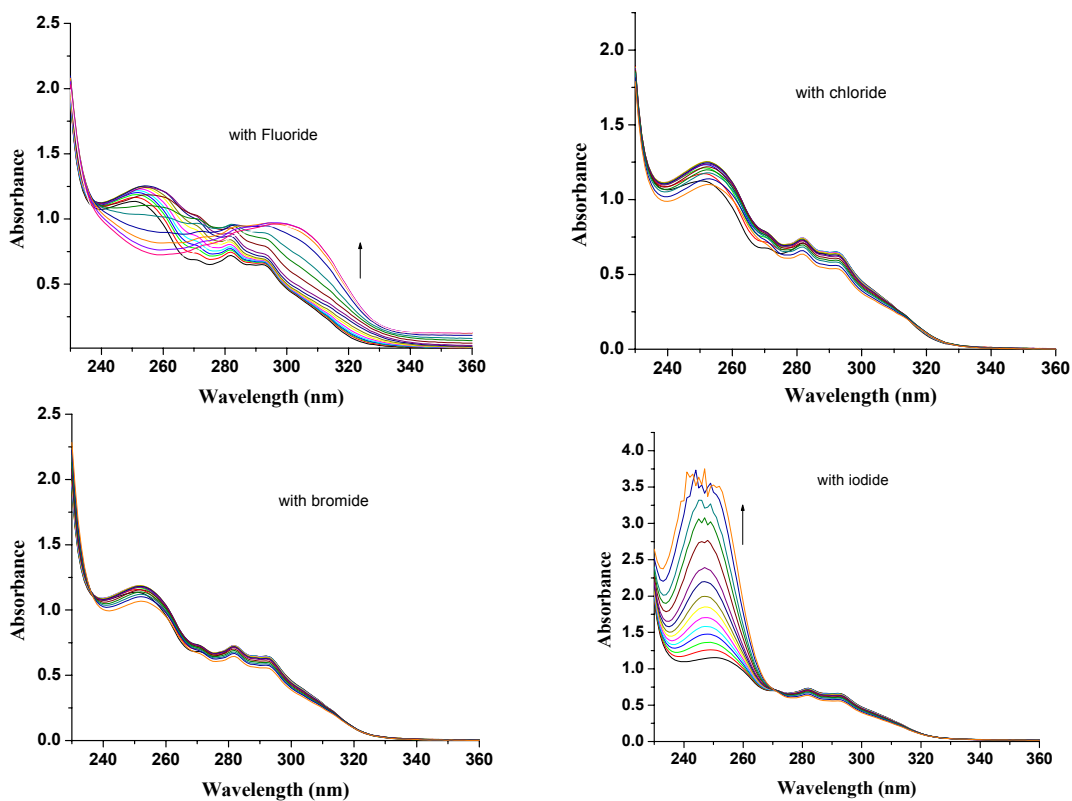


Figure 1S. Fluorescence Job plot of **1** ($c = 3.40 \times 10^{-5}$) for H_2PO_4^- in CH_3CN .



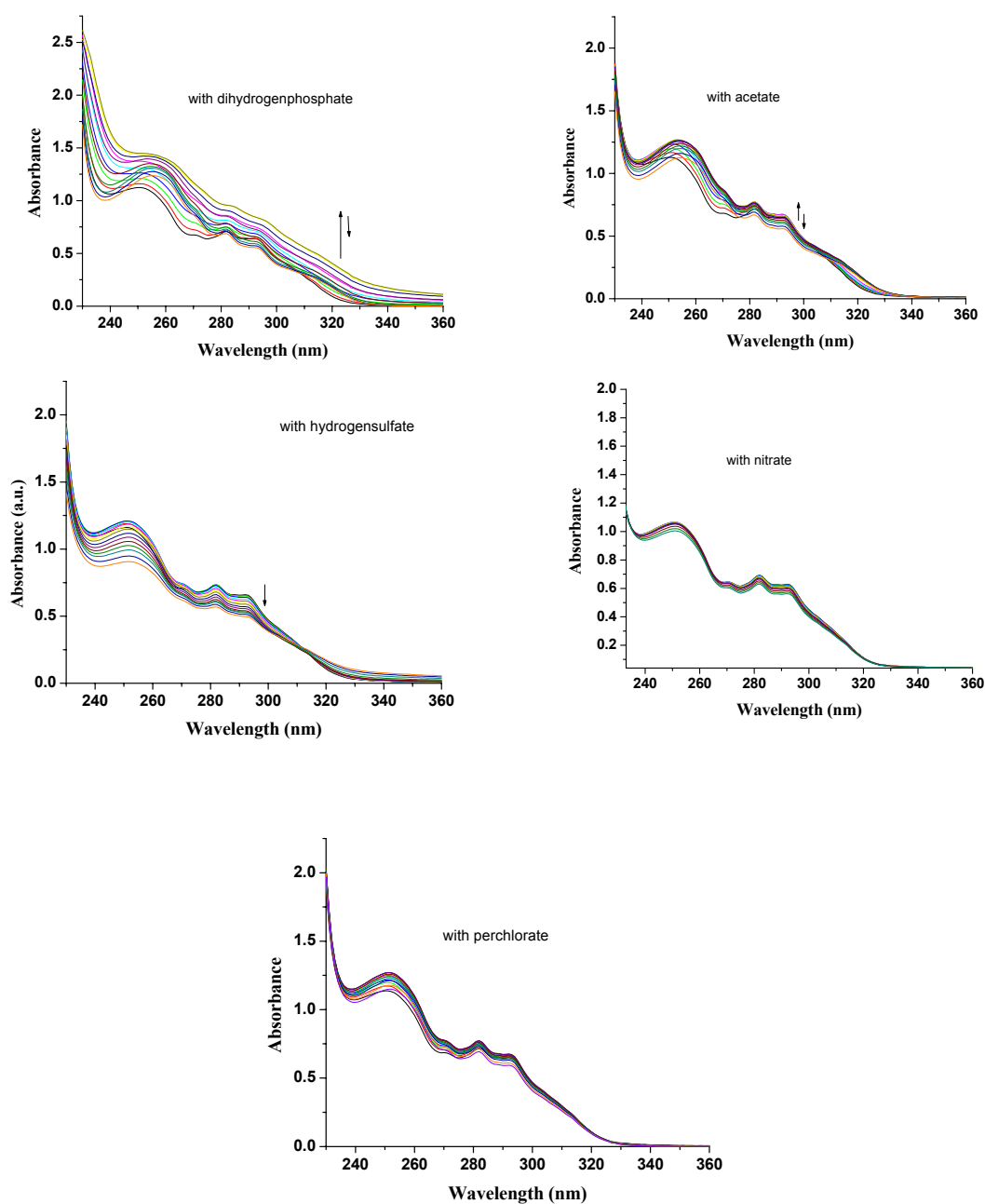


Figure 2S. Change in absorbance of **1** ($c = 3.40 \times 10^{-5}$ M) upon addition of a) F^- , b) Cl^- , c) Br^- , d) I^- , e) H_2PO_4^- , f) AcO^- , g) HSO_4^- , h) NO_3^- , i) ClO_4^- in CH_3CN .

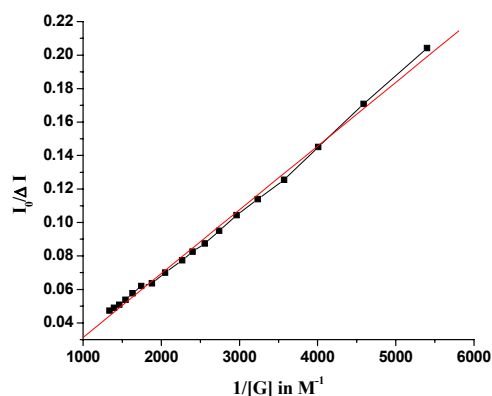
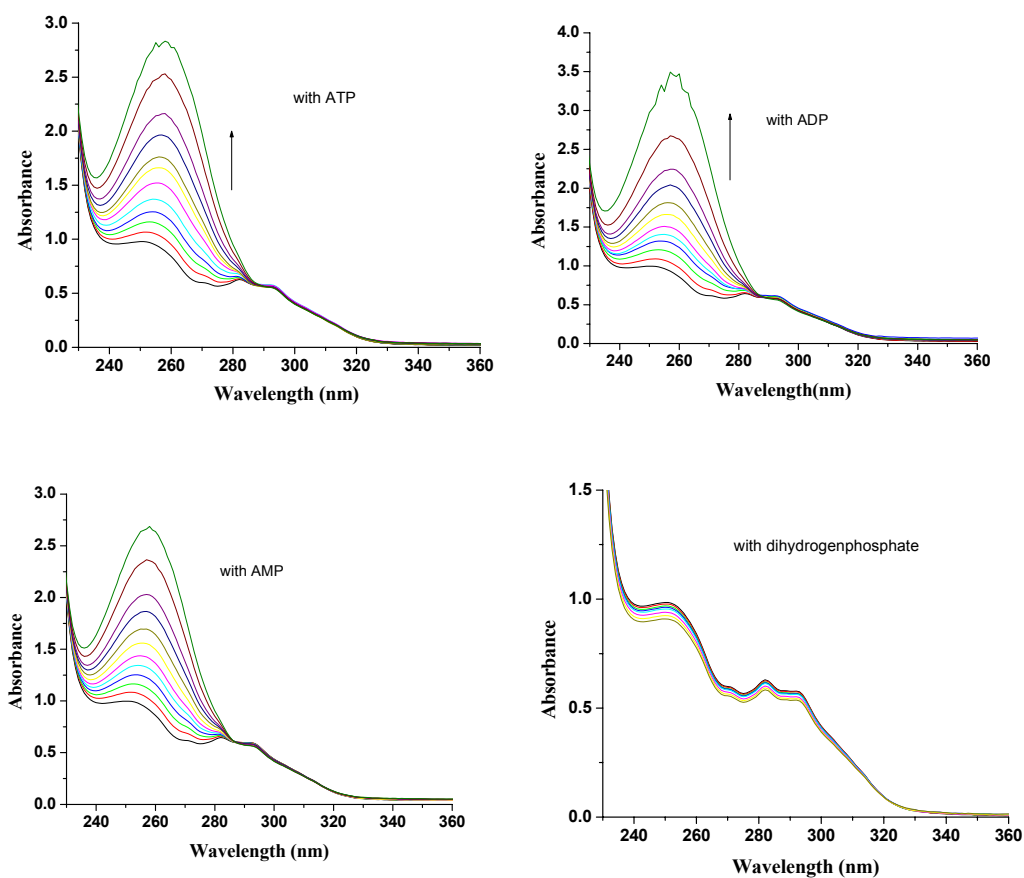


Figure 3S. Benesi-Hilderband plot for ADP with **1** ($c = 4.04 \times 10^{-5}$) measured at 386 nm.



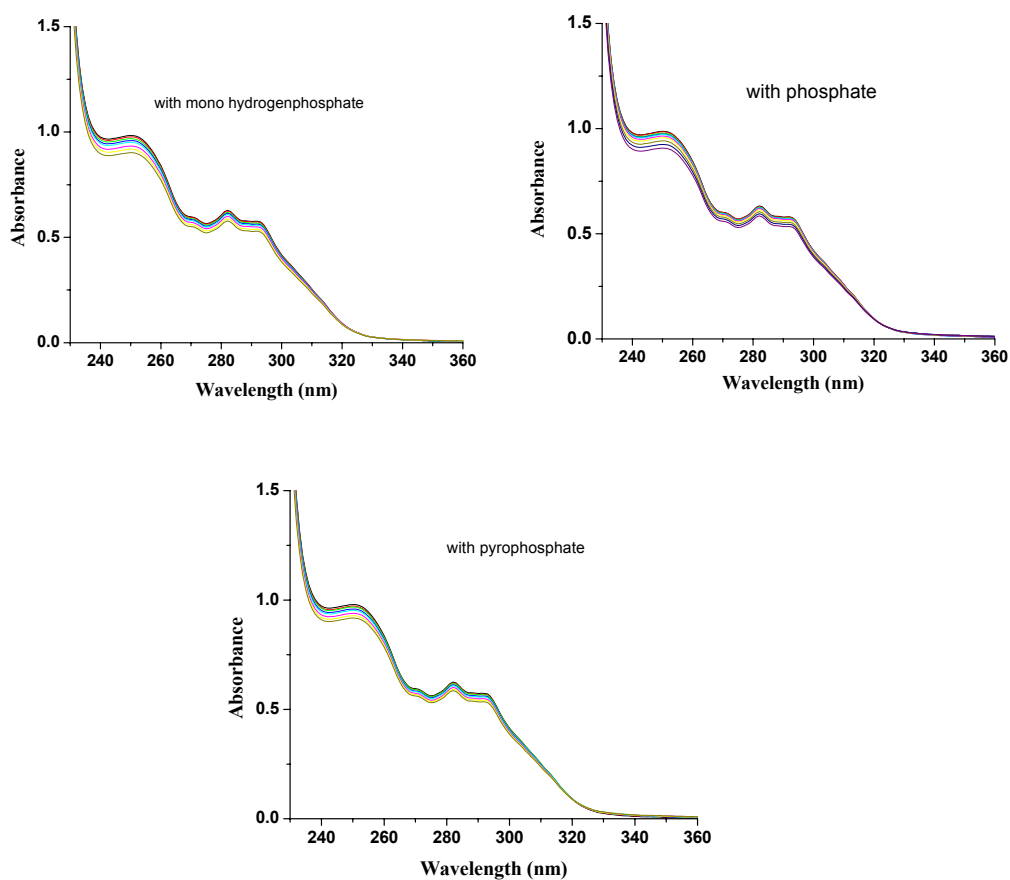


Figure 4S. Change in absorbance of **1** ($c = 3.22 \times 10^{-5}$ M) upon addition of a) ATP, b) ADP, c) AMP, d) H_2PO_4^- , e) HPO_4^{2-} , f) PO_4^{3-} , g) $\text{P}_2\text{O}_7^{4-}$ in $\text{CH}_3\text{CN-H}_2\text{O}$ (1:1, v/v, pH = 6.5) containing no buffer solution.

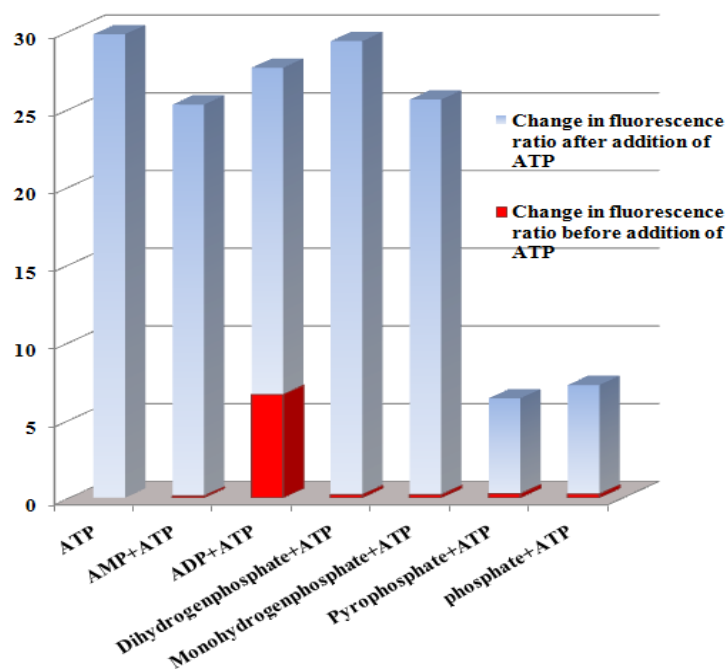


Figure 5S. Change in fluorescence ratio of **1** ($c = 4.18 \times 10^{-5}$ M) upon addition of ATP in presence of other anions CH₃CN-H₂O (1:1, v/v, pH = 6.5) containing no buffer solution.

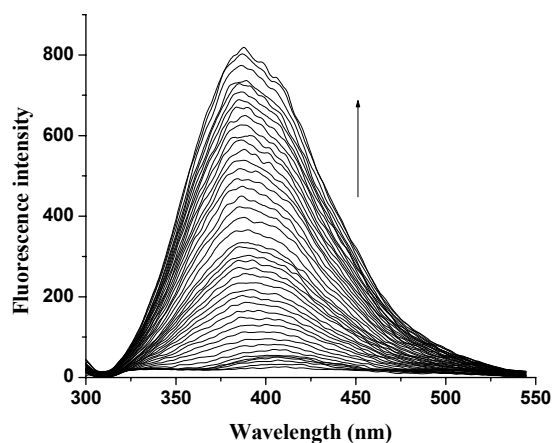


Figure 6S. Change in emission of **1** ($c = 4.62 \times 10^{-5}$ M) in CH₃CN-H₂O (1:1, v/v) at pH 6.5 (10 mM HEPES buffer) upon gradual addition of aq. solution of ATP ($c = 1.43 \times 10^{-3}$ M).

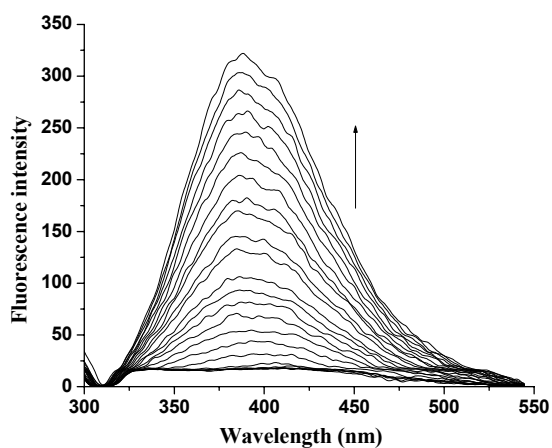


Figure 7S. Change in emission of **1** ($c = 4.62 \times 10^{-5}$ M) in $\text{CH}_3\text{CN-H}_2\text{O}$ (1:1, v/v) at pH 6.5 (10 mM HEPES buffer) upon gradual addition of aq. solution of ADP ($c = 1.70 \times 10^{-3}$ M).

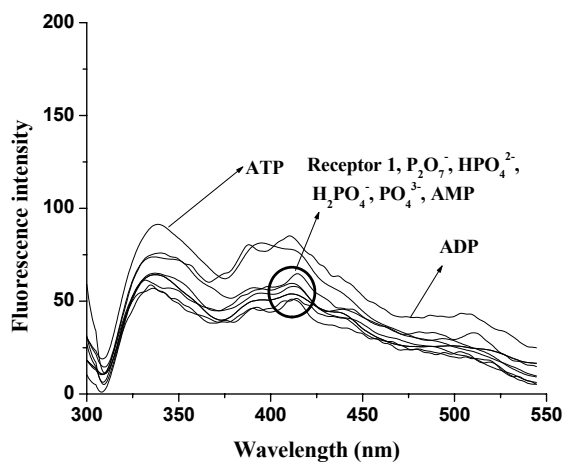


Figure 8S. Change in emission of **1** ($c = 4.38 \times 10^{-5}$ M) in the presence of 30 equivalent amounts of the sodium salts of various anions in $\text{CH}_3\text{CN-H}_2\text{O}$ (1:1, v/v) at pH 7.3 (10mM HEPES buffer).