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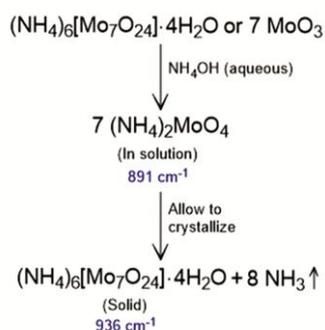
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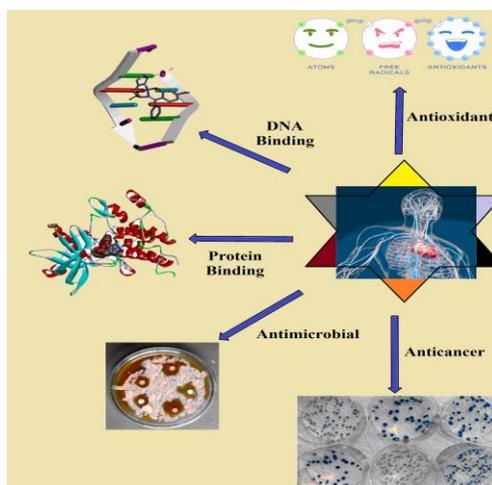
Papers

- 1760 Convenient synthesis and Raman spectral characterization of diammonium monomolybdate(VI)** A convenient and cost-effective method for the preparation of gram quantities of an ammonium-rich Mo compound viz. diammonium monomolybdate(VI) $(\text{NH}_4)_2\text{MoO}_4$ is reported.



Sudesh M Morajkar & Bikshandarkoil R Srinivasan*

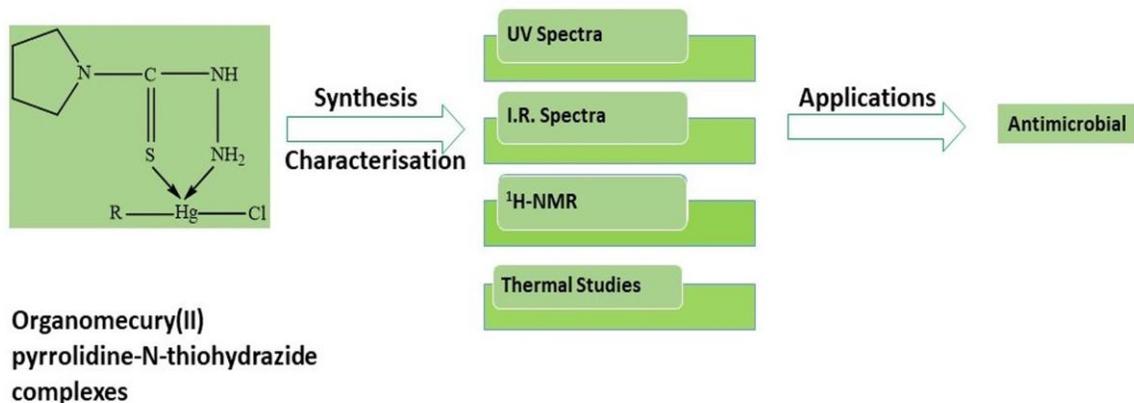
- 1768 Theoretical and experimental studies of novel histidine derived Schiff base metal complexes, active towards biomedical and MCF 7 cell lines** Novel tri-dentate ligand-metal complexes [Mn(II), Co(II), Cu(II), Ni(II) and Zn(II)] have been synthesized using L-histidine amino acid derived Schiff base ligand and characterized using analytical and spectral methods like UV-visible, FT-IR and ESI-MS techniques.



N Sridevi & D Madheswari*

1778 **Synthesis, characterization and applications of Organomecury(II) pyrrolidine-N-thiohydrazone complexes**

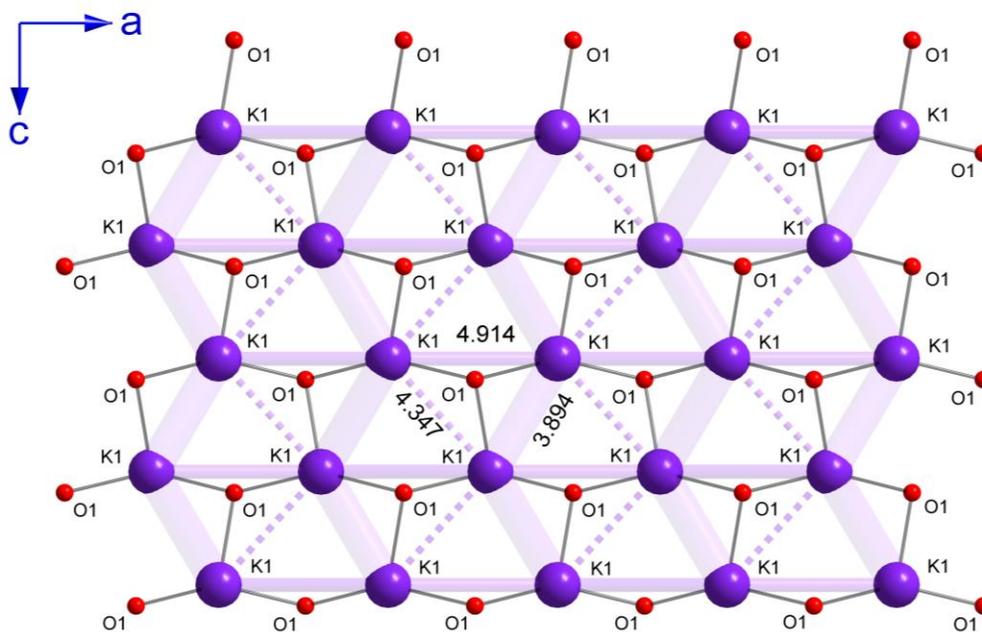
The complexes of organomecury(II) with pyrrolidine-N-thiohydrazone of the type $RHg(L)Cl$ where $[R=C_6H_5$ (phenyl), $p-ClC_6H_4$ (p-chlorophenyl), $p-BrC_6H_4$ (p-bromophenyl), o -, $p-HOC_6H_4$ (o-,p-hydroxyphenyl), $L =$ pyrrolidine-N-thiohydrazone, have been synthesized and characterized by elemental analysis, IR, ^1H-NMR and electronic spectral analysis.



Rama Sharma* & N K Kaushik

1785 **Crystal structure of potassium hydrogen phthalate revisited**

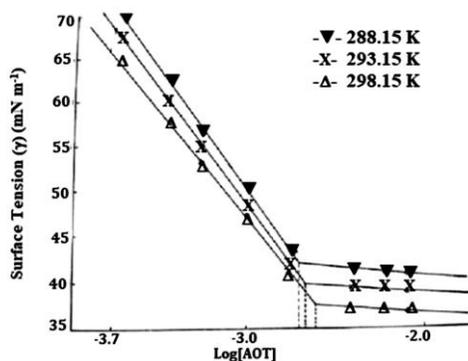
In the two-dimensional potassium hydrogen phthalate, the μ_4 -heptadentate binding mode of the unique hydrogen phthalate ligand organizes the K^+ ions into parallel chains of face-sharing $\{KO_7\}$ polyhedra extending along c . The chains flanked on either side by hydrogen phthalate wings are interlinked by vertex sharing (O1) of three polyhedra to extend the connectivity along a axis.



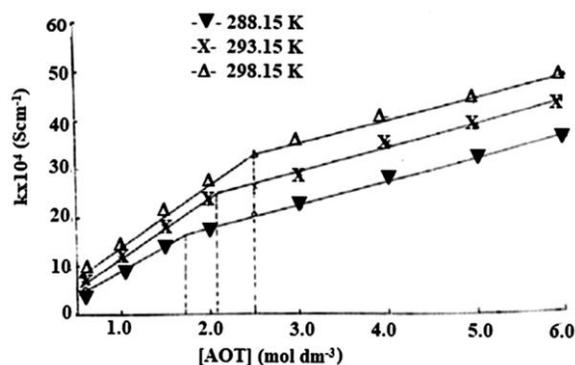
Bikshandarkoil R Srinivasan*, Sunder N Dhuri & Kedar U Narvekar

1793 Effects of Na_2SO_4 and Na_3PO_4 on the surface and thermodynamic properties of an anionic surfactant: bis-(2-ethyl hexyl) sodium sulfosuccinate (AOT) in aqueous solutions

Compared to divalent SO_4^{2-} , the trivalent PO_4^{3-} ions, added to anionic surfactant bis-(2-ethyl hexyl) sodium sulfosuccinate (AOT) aqueous solution, causes more lowering of critical micelle concentration and thus higher micellar stabilization. This may be beneficial for improving the efficiency of AOT as a detergent and petroleum recovery in tertiary process.



Plots of surface tension (m Nm^{-1}) as a function of Log [AOT]

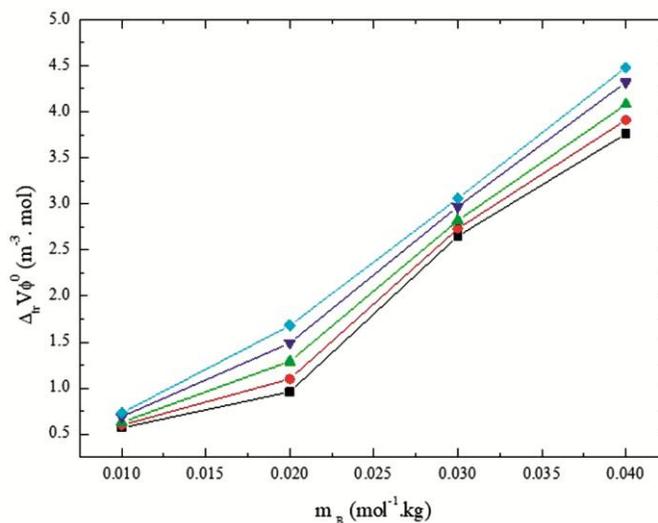


Plot of specific conductance ($k \times 10^4 \text{ (S cm}^{-1}\text{)}$) as a function of [AOT]

Suman Bala, Ram Partap* & O P Yadav

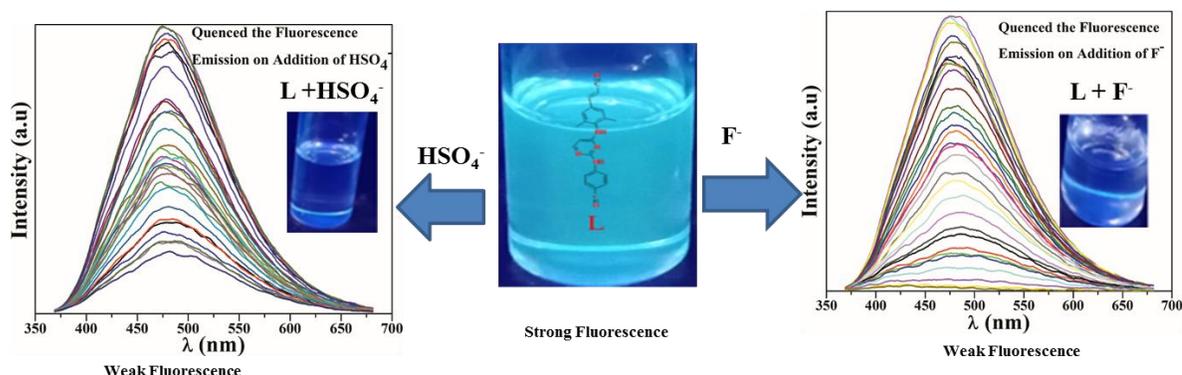
1800 Volumetric and acoustic studies of glycine in aqueous solutions of sulphathiazole drug at $T=(288.15 \text{ to } 308.15) \text{ K}$

The densities and speeds of sound for glycine in aqueous solutions of (0.01, 0.02, 0.03, and 0.04) $\text{mol} \cdot \text{kg}^{-1}$ sulphathiazole drug have been measured at $T = (288.15, 293.15, 298.15, 303.15 \text{ and } 308.15) \text{ K}$, using vibrating tube digital densimeter and sound analyser Anton-Paar Model DSA-5000. These results are explained on the basis of drug-amino acid - water interactions and hydrophobic -hydrophilic interactions. Ion-hydrophilic and hydrophilic - hydrophilic interactions predominate over the hydrophilic- hydrophobic group interactions.



Amalendu Pal* & Surbhi Soni

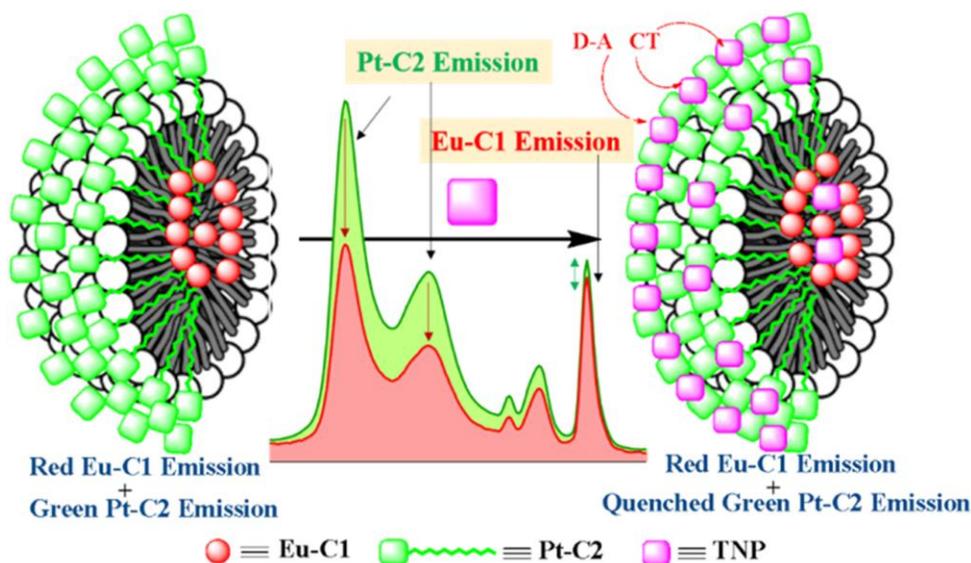
- 1809** **Selective detection of fluoride and hydrogen sulfate anions by pyrimidine-based fluorescence chemosensor** A pyrimidine based fluorescence molecular probe (**L**) is reported for sensing and binding of anions. Rilpivirine, a pyrimidine based receptor (**L**), acts as a pharmaceutical drug, which is used for treatment of HIV infection. **L** is highly selective for F^- over other halides and HSO_4^- amongst other oxo anions. The light green solution of **L** turns colorless in presence of F^- and HSO_4^- .



Selective detection of F^- and HSO_4^- by pyrimidine-based molecular probe (**L**)

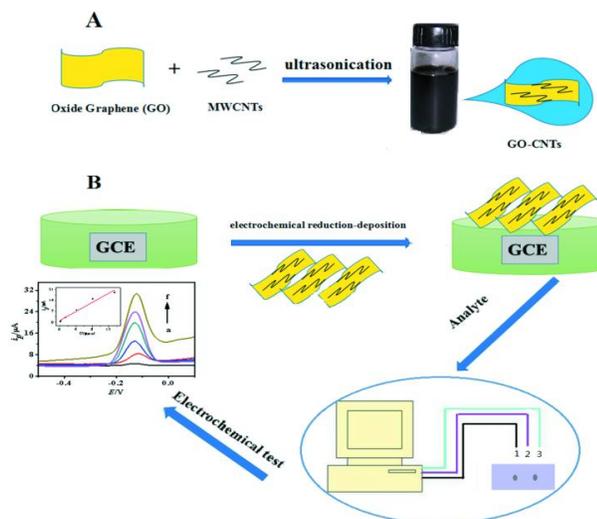
Soumya R Thakur, R Behura, S Behera, Rajesh B Sayala, Arun K Barick, Ramakrishna D S & Bigyan R Jali*

- 1814** **A supramolecular strategy for ratiometric luminescence sensing of nitroaromatic explosives in water** A supramolecular strategy for ratiometric sensing of nitroaromatic explosives has been developed by simply mixing two independent luminophores, a red luminescent Eu(III) complex and a green luminescent Pt(II)-complex in an aqueous surfactant solution.



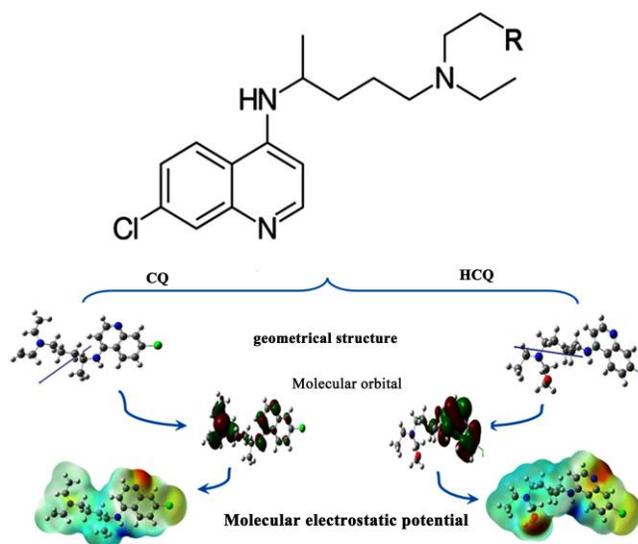
Pranav Dave, Bhooma Bhagat, Bhavesh Agrawal & Prasenjit Maity*

- 1822 **A sensitive electrochemical sensor for cryptotanshinone based on electrochemical reduced graphene oxide and carbon nanotube composite film modified glassy carbon electrode** The graphene/carbon nanotube modified electrode (ErGO/CNTs/GCE) is fabricated by a simple and effective pulsed potentiostatic method under constant stirring for rapid determination of CTH in medicine.



Hui Liu*, Huai-yuan Han, Ming-hui Liu & Yong-fu Zhao*

- 1828 **Theoretical analysis of the reactivity of chloroquine and hydroxychloroquine** The analysis of molecular structure reactivity for Chloroquine (CQ) and Hydroxychloroquine (HCQ) is performed by Density functional theory. Geometrical structures, energy bandgaps and molecular electrostatic potential showed that CQ is higher reactivity with a good polarizable than HCQ.



Rebaz Anwar Omer*, Lana O Ahmed, Matin Koparir & Pelin Koparir

Authors for correspondence are indicated by (*)