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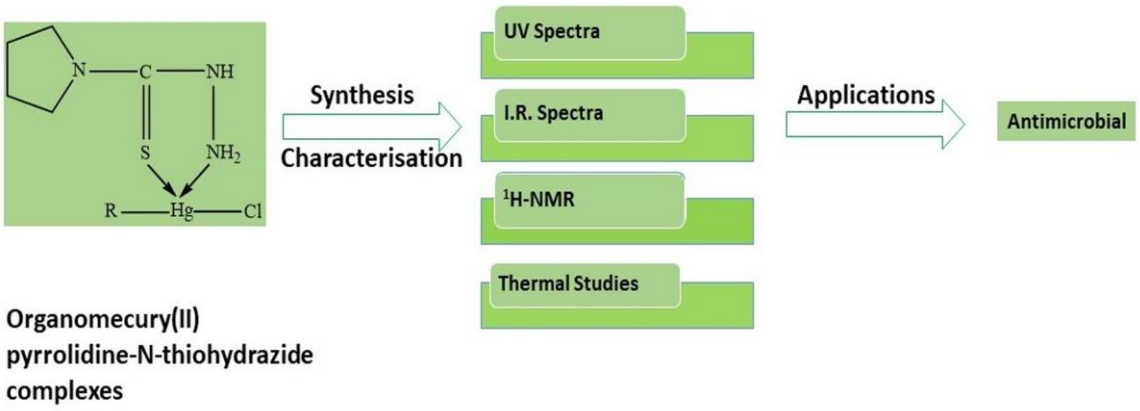
CONTENTS

Papers

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

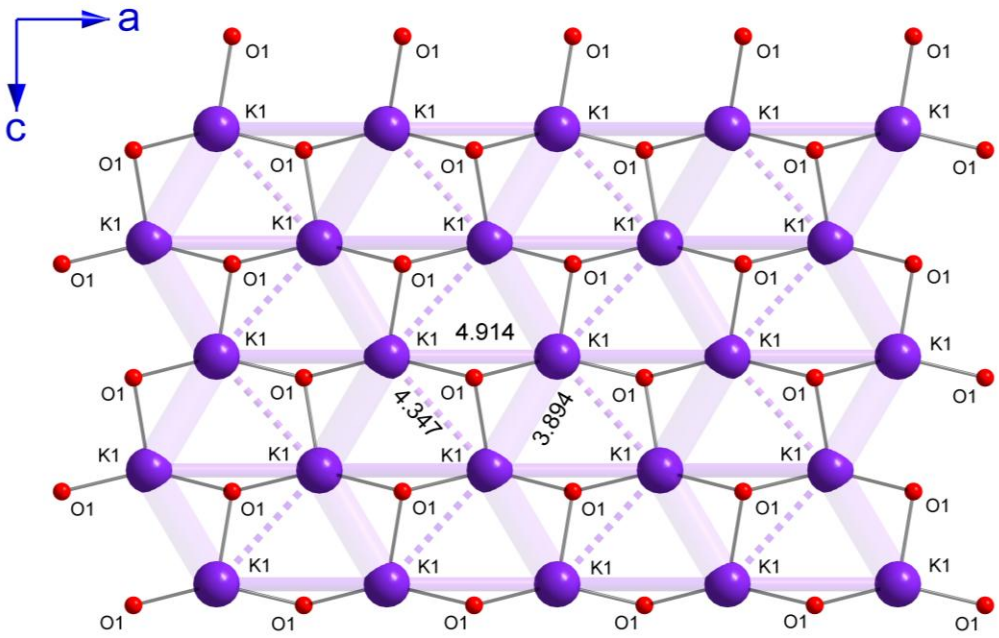
The complexes of organomercury(II) with pyrrolidine-N-thiohydrazide of the type RHg(L)Cl where[R=C_6H_5 (phenyl), p-ClC_6H_4 (p-chlorophenyl), p-BrC_6H_4 (p-bromophenyl), o-, p-HOC_6H_4, (o-,p-hydroxyphenyl), L = pyrrolidine-N-thiohydrazide, have been synthesized and characterized by elemental analysis,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



Rama Sharma* & N K Kaushik

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

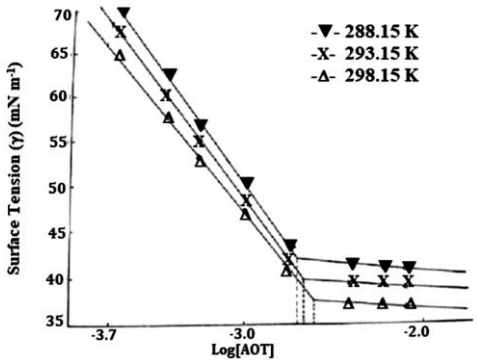
In the two-dimensional potassium hydrogen phthalate, the μ_4-heptadentate binding mode of the unique hydrogen phthalate ligand organizes the K^+ ions into parallel chains of face-sharing $\{KO_7\}$ polyhedra extending along *c*. The chains flanked on either side by hydrogen phthalate wings are interlinked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



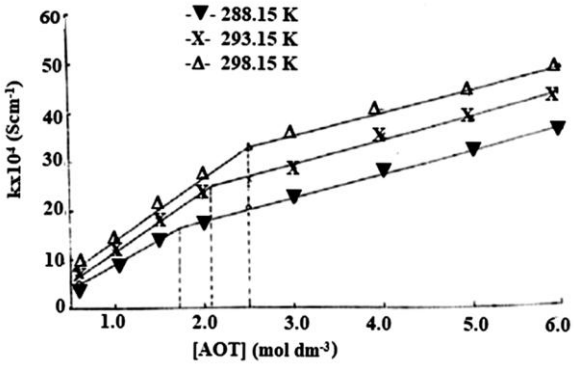
Bikshandarkoil R Srinivasan*, Sunder N Dhuri & Kedar U Narvekar

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 aniomic 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]

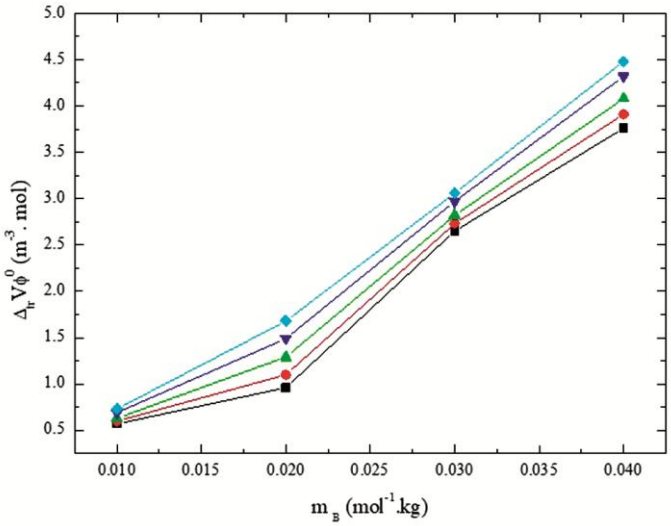


Plot of specific conductance (k) x10^4 (S cm^{-1}) as a function of [AOT]

Suman Bala, Ram Partap* & O P Yadav

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

The densities and speeds of sound for glycine in aqueous solutions of (0.01, 0.02, 0.03, and 0.04) mol·kg^{-1} sulphathiazole drug have been measured at T = (288.15, 293.15, 298.15, 303.15 and 308.15) 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

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