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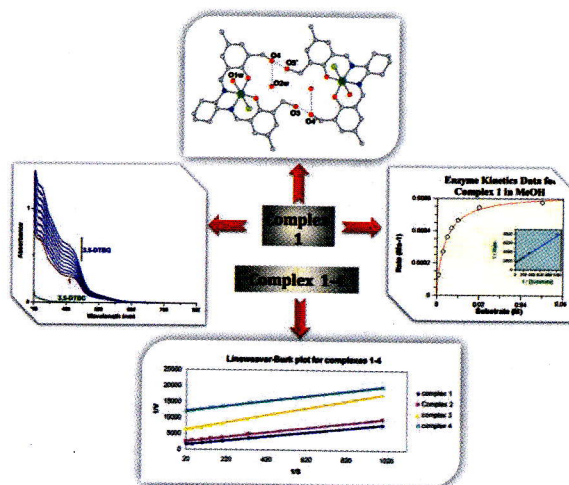
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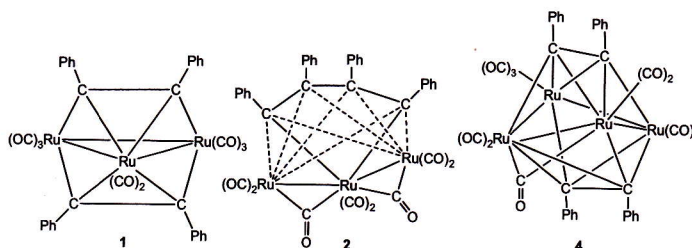
Papers

- 169** **Epoxidation and catechol oxidation catalytic processes promoted by manganese(III) complexes of salen-type ligands** Four mononuclear Mn(III) complexes derived from cresol-based "salen-type" ligand LH₂, of general formulation [Mn(L)Cl(H₂O)](H₂O) are synthesised and characterised. The catecholase activity and epoxidation efficiency of the complexes are assessed and found to depend on the diimine bridge substituents in the complexes.



Averi Guha, Ennio Zangrando & Arpita Chandra*

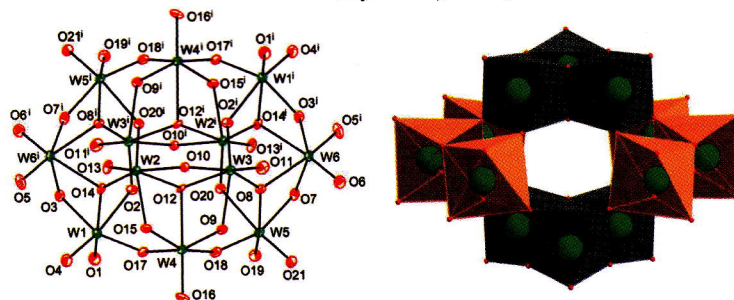
- 177** **Revisiting the reactivity of Ru₃(CO)₁₂ with PhC≡CPh (diphenylacetylene)-new findings of a thermic effect towards higher nuclearity** Tri- and tetranuclear ruthenium carbonyl compounds containing PhC≡CPh ligand showing μ₃-η², μ₃-η⁴, μ₄-η² coordination modes are synthesized and characterized by single-Crystal X-ray diffraction, IR and ¹H NMR spectroscopic methods.



Mihir L Bhowmik, Tareque S M Abedin & Shariff E Kabir*

185 **Synthesis, spectral and structural characterization of organic ammonium paratungstates**

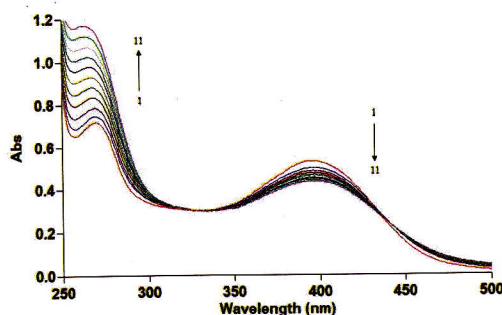
Synthesis and characterization of two organic ammonium paratungstates *viz.* $(\text{MeNH}_3)_{10}[\text{H}_2\text{W}_{12}\text{O}_{42}] \cdot 12\text{H}_2\text{O}$ **1** ($\text{MeNH}_2 =$ methylamine) and $(\text{EtNH}_3)_{10}[\text{H}_2\text{W}_{12}\text{O}_{42}] \cdot 4\text{H}_2\text{O}$ **2** ($\text{EtNH}_2 =$ ethylamine) are reported.



Sudesh M Morajkar & Bikshandarkoil R Srinivasan*

196 **Synthesis and spectroscopic calf thymus deoxyribonucleic acid binding investigations of luteolin – zinc(II) complex**

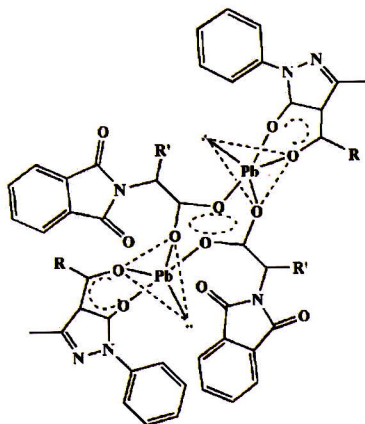
A luteolin–zinc(II) (lut–Zn) complex has been synthesized by the reaction of luteolin with copper acetate in alcohol. The binding mode of lut–Zn with calf thymus deoxyribonucleic acid is studied by different spectroscopic methods.



Shufang Zhang*, Xuejun Sun & Lajin Tian

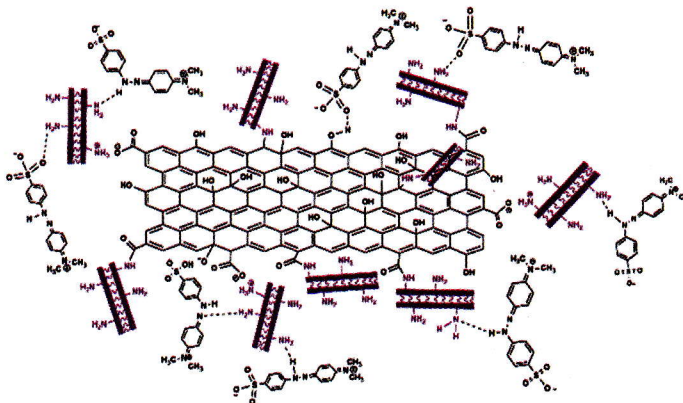
202 **Organic-inorganic hybrid complexes of Lead (II) of sterically demanding heterocyclic β -diketones and flexible N-protected amino acids**

Organic-inorganic hybrid complexes of lead(II) sterically demanding heterocyclic β -diketones and flexible N-protected amino acids are synthesized and characterized spectroscopically.



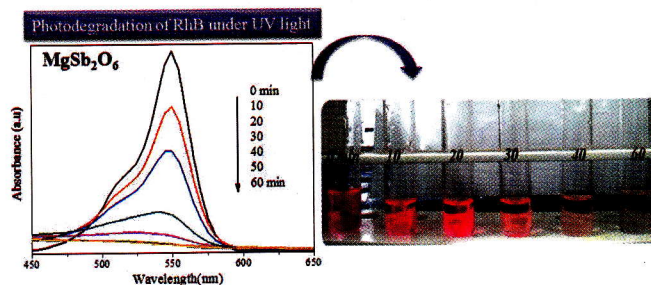
Karuna Maheshwari, Sanjiv Saxena & Asha Jain*

- 209 Application of the graphene oxide/chitosan nanocomposite in the removal of methyl orange from aqueous solutions: a mechanism study** The adsorption of methyl orange from aqueous solutions using GO-C is studied. Methyl orange molecules can be desorbed from GO-C up to 79.2% at pH =11 and that the consumed GO-C can be reutilized up to 5th cycle of regeneration.



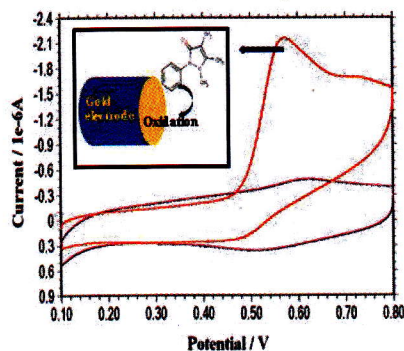
Mina Azadfar, Hasan Tahermansouri* & Mahnaz Qomi

- 220 Band gap engineering and Photocatalytic activity of new trirutile structure $Zn_{1-x}Mg_xSb_2O_6$ ($0 \leq x \leq 1$) solid solution** Solid solution of trirutile structure type antimonate $Zn_{1-x}Mg_xSb_2O_6$ ($0 \leq x \leq 1$) and their photocatalytic activity is reported here. All the compositions of $Zn_{1-x}Mg_xSb_2O_6$ have shown significant photocatalytic activity towards degradation of rhodamine B.



Nagarajan Arunkumar*

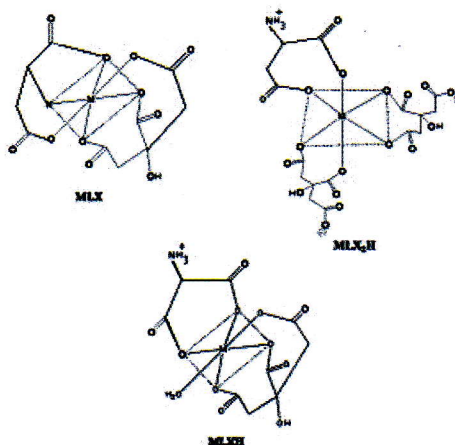
- 228 Electro-chemical oxidation and determination of granulocytosis risk inducing drug 4-aminoantipyrine at gold electrode** A voltammetric technique for electrochemical sensing and quantification of granulocytosis risk inducing metabolite of aminopyrine, 4-aminoantipyrine (4-AAP) at gold electrode has been developed.



Jayant I Gowda*, Rohini M Hanabaratti & Sharanappa T Nandibewoor

- 236 **Effect of triton-X100 on ternary complexes of cobalt (II), nickel(II), copper (II) & zinc(II) with aspartic and citric acids**

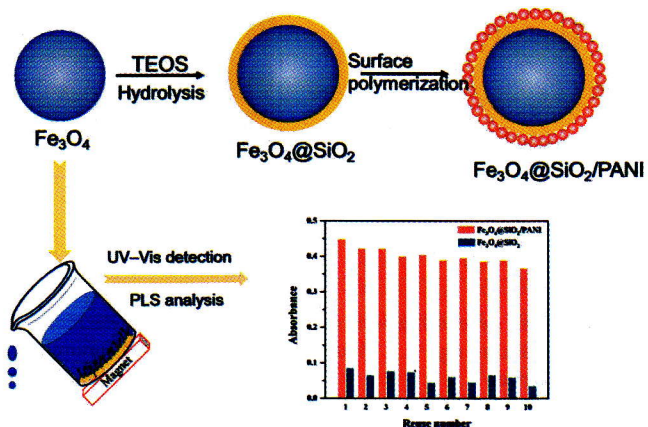
A computer based investigation is performed pH-metrically on the chemical speciation of mixed ligand complexes in ternary systems consisting of cobalt(II), nickel(II), copper(II) and zinc(II) with aspartic and citric acids to form $MLXH^{2-}$, MLX_2H^{4-} and MLX^{3-} ternary species.



Pedada Srinivasa Rao* & Gollapalli Nageswara Rao

- 243 **Simultaneous spectroscopic determination of trace mixed organic acids in aqueous samples using magnetic solid phase extraction coupled with chemometrics method**

Trace mixed organic acids in aqueous samples are determined simultaneously by coupled method of magnetic solid phase extraction, UV-visible detection and chemometrics calculation.



Yugao Guo*, Yuan Jiang, Pei Liu, Jianwei Yang, Qingyin Zhang & Xihui Bian

Authors for correspondence are indicated by (*)