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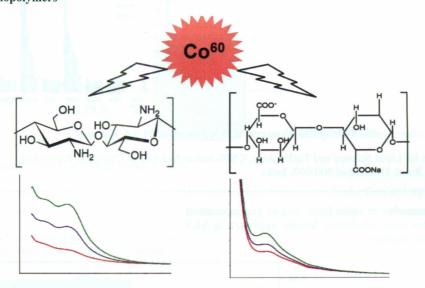
# **Indian Journal of Chemistry**

VOL. 62 NUMBER 9 SEPTEMBER 2023

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### **Papers**

899 Gamma degradation studies of chitosan and sodium alginate biopolymers



Apurva Bambal, Ravin Jugade\*, Vaishnavi Gomase, Anita Shekhawat & D Sarvanan

Department of Chemistry, RTM. Nagpur University, Nagpur 440 033, India

906 Synthesis, spectral, crystal, computational studies and antimicrobial activities of (E)-N-(substituted arylidene)-3-(trifluoromethyl)anilines

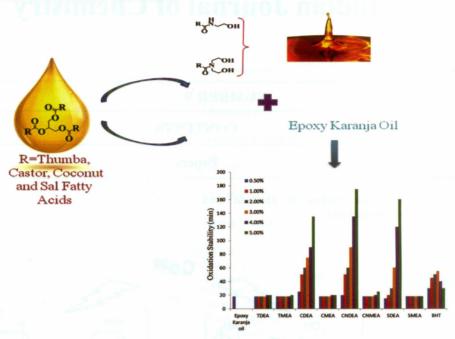
More than 90% yields of some new 4-trifluorophenyl based Schiff bases have been obtained by solvent -free method. The crystal, optimized structures and electrostatic potentials of imines have been studied. All imines show good to satisfactory antibacterial activities against the tested bacterial stains.

N Dineshkumar, I Muthuvel & G Thirunarayanan\*

Department of Chemistry, Annamalai University, Annamalainagar 608 002, India

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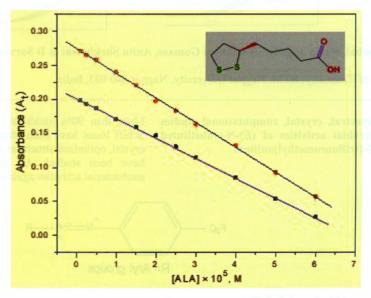
921 Vegetable oil-based ethanolamides as potential anti-oxidant additives for lubricant formulations



Kamalakar Kotte, Thirupathi Azmeera, R B N Prasad & M S L Karuna\*

Centre for Lipid Science and Technology, CSIR-Indian Institute of Chemical Technology, Uppal Road, Hyderabad 500 007, India

931 Determination of alpha-lipoic acid in pharmaceutical samples using inhibitory kinetic approach in SLS micellar medium



Abhishek Srivastava\*, Neetu Srivastava & Ruchi Singh

Department of Chemistry, GLA University, Mathura 281 406, U.P., India

### 940 Synthesis of crop protection agent mandipropamid

### K Annapurna, S Fatima Zeenath & A Venkat Narsaiah\*

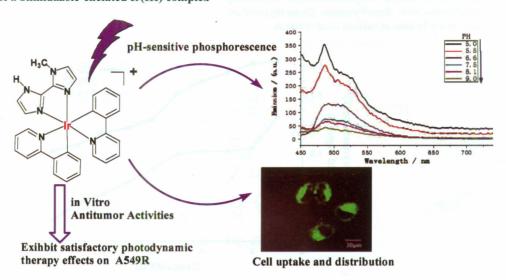
Organic Synthesis Laboratory, Fluoro-Agrochemicals Department, CSIR-Indian Institute of Chemical Technology, Hyderabad 500 007, Telangana, India

# 945 Nanocomposite γ-ferric oxide (γ-Fe<sub>2</sub>O<sub>3</sub>) mediated, green, solvent free, one pot synthesis of naturally occurring acetate esters

#### Chandan P Amonkar\*, Savio S Dias & Anita S Tilve

Department Of Chemistry, P.E.S.'s R.S.N. College of Arts and Science, Farmagudi, Ponda, Goa 403 401, India

# 950 Synthesis, characterization and *in vitro* antitumor activities of a biimidazole-chelated Ir(III) complex



#### Miao Ouyang\*, Ping Hu, Hong Cai, Yanhuai Chen & Hongzhao Lin

School of Chemical and Environmental Engineering, Hanshan Normal University, Chaozhou, Guangdong, China

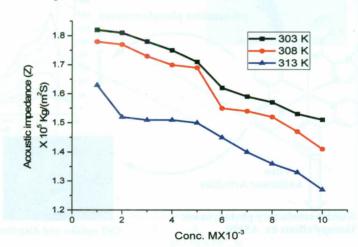
956 antimicrobial studies

Synthesis of ternary metal complexes of bivalent An approach towards synthesizing a Schiff base derived from 2metal ions with benzimidazole derivative and their aminobenzimidazole and 2-chloroacetophenone and their complexation with transition metals using different secondary ligands (8-hydroxyquinoline or L-histidine) have been summarized and their biological studies evaluated.

Seema, Suman Kumari, Shobhana Sharma, Poonam Yadav & Mamta Ranka\*

Department of Chemistry, University of Rajasthan, Jaipur 302 004, India

962 Ultrasonic study for the molecular interactions of the ternary liquid mixture of p-anisaldehyde (4-methoxy benzaldehyde) with dimethylamine (N-methylmethanamine) and n-hexane at various temperatures

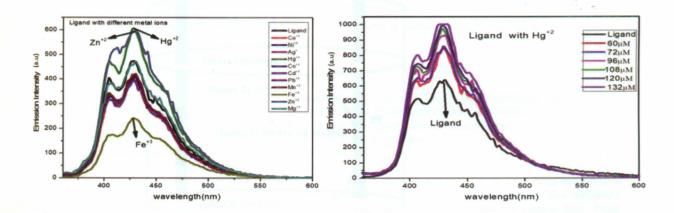


Y Geetha, P S Syed Ibrahim\*, J Edward Jeyakumar & S Chidambara Vinayagam

Department of Chemistry, V.S.B Engineering College, Karur 639 111, India

# 970 Pyridine-2,6-dicarboxamide-based fluorescent sensor for detection of Fe<sup>3+</sup> and Hg<sup>2+</sup>

Novel and efficient fluorescent probes having N2, N6-*bis*(5-Mercapto-1,3,4-thiadiazol-2-yl)pyridine-2,6-dicarboxamide (TPDC) are synthesized by the condensation reaction between pyridine-2,6-dicarboxylic acid and amino derivatives of thiadiazoles. The novel fluorescent probe TPDC exhibits a highly sensitive and selective response to Fe<sup>3+</sup> and Hg<sup>2+</sup> ions in HEPES buffer solution showing the detection limit to be 0.49  $\mu$ M and 0.0066  $\mu$ M, respectively.



### Gajendra Kumar, Anuroop Kumar & Netra Pal Singh\*

Department of Chemistry, DDU Gorakhpur University, Gorakhpur 273 009, India

# 976 Schiff base metal complex synthesis, characterization, and antimicrobial application

All three novel metal complex derivatives from the 4-(5-((2-hydroxybenzylidene)amino)-1,3,4-thiadiazol-2-yl)benzonitrile in alcoholic medium have been effectively synthesised by combining HL with the metal ions Mg(II), Zn(II), Sn(II). Elemental analysis, molecular weight, magnetic moment, spectroscopic methods have been used to characterise the produced complexes.

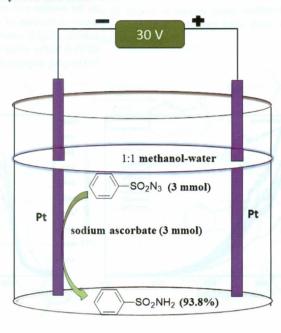
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#### V Madhukar & S Jyothi\*

Department of Chemistry, Kakatiya University, Warangal 506 009, India

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980 Electrochemical conversion of benzene sulphonyl azide into sulphonamide assisted by sodium ascorbate



## Paliakkara Lona Deena\* & Savariraj Joseph Selvaraj

Department of Chemistry, St. Joseph's College (Autonomous), Tiruchirappalli 620 002, Tamil Nadu, India (Affiliated to Bharathidasan University, Tiruchirappalli 620 024, Tamil Nadu, India)

986 Additions and Corrections

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