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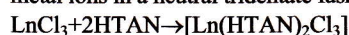
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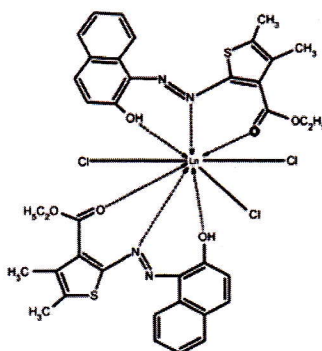
Papers

- 489 **Synthesis, spectroscopic characterisation, corrosion inhibition studies and dyeing properties of lanthanide(III) complexes of 1-[(3-carboxyethyl-4,5-dimethylthiophen-2-yl)azo]-2-naphthol**

Ligand is synthesized by coupling of diazotized 2-amino-4,5-dimethylthiophene with 2-naphthol and then coordinated to Ln(III) metal ions in a neutral tridentate fashion to form the complexes.



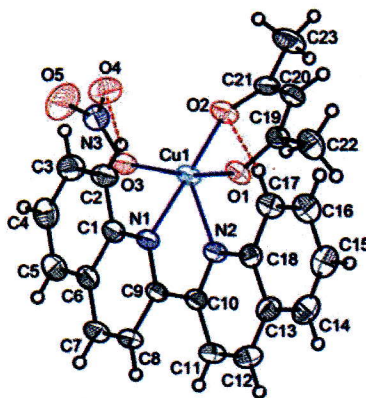
It has been found that azo dye ligand reduces the corrosion rate and the inhibition efficiency is increased on complexation.



C J Athira*, M S Sujamol, Y Sindhu & K Mohanan

- 499 **Synthesis and structure of a mixed ligand copper(II) compound based on a distorted {CuN₂O₃} square pyramid**

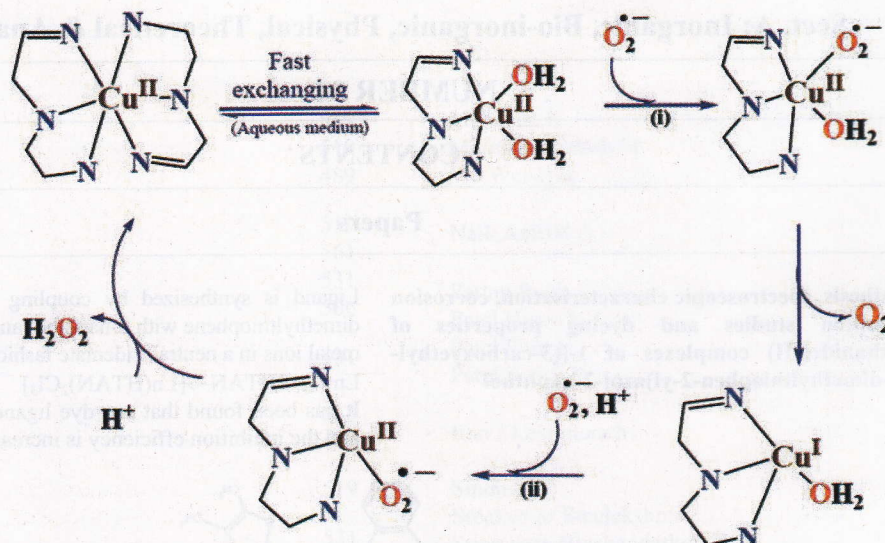
The synthesis, spectra and crystal structure of a new mixed ligand copper(II) compound viz. [Cu(biq)(acac)(NO₃)] **1** (biq = 2,2'-biquinoline, acac = acetylacetonate) are reported. The {CuN₂O₃} polyhedron in **1** deviates from square pyramidal geometry.



Megha S Deshpande, Amrita A Naik, Sudesh M Morajkar & Bikshandarkoil R Srinivasan*

- 506 **New mono- and polynuclear copper(II) complexes: Structural characterization, quantum chemical calculations and antioxidant superoxide dismutase studies**

Two copper(II) complexes have been synthesized and characterized. *In vitro* antioxidant (superoxide dismutase, SOD) properties of the complexes have shown considerable activity compared to other SOD mimics.

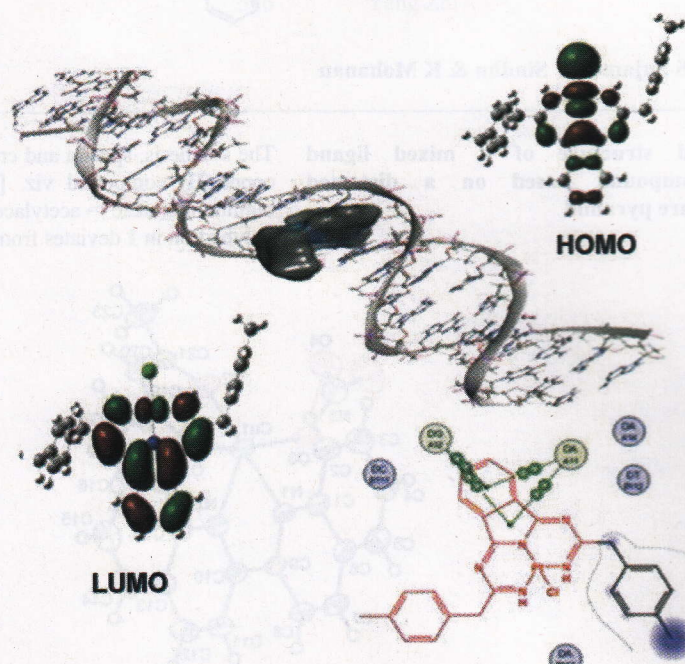


Suggested mechanism of $\text{O}_2^{\cdot-}$ dismutation reaction catalyzed by the complex

Ram N Patel*, Satish K Patel*, D Kumhar, Nirmala Patel & Raymond J Butcher

- 519 **The potential anticancer activities of platinum(II) complexes with tridentate N'N'N' pincer ligands**

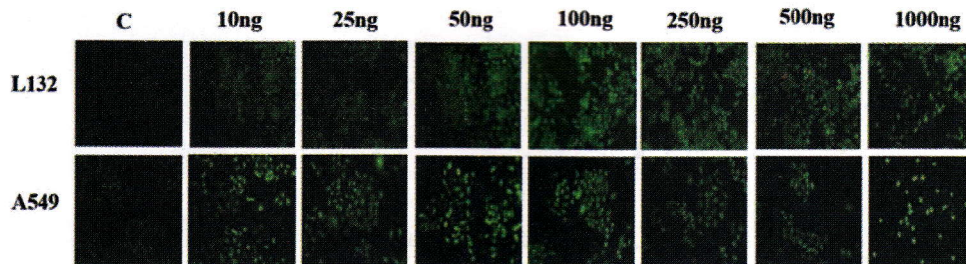
Synthesis, characterization, DFT, molecular docking and anticancer activities of platinum(II) complexes containing tridentate N'N'N' pincer ligands are reported.



Jamal Lasri*, Magda M Aly, Naser E Eltayeb, Mona A Alamri, Bandar A Babgi & Mostafa A Hussien

- 531 **Synthesis and crystal structures of 2-acetylpyridine-N(4)-methyl-3-thiosemicarbazone (L) and its metal complexes: Anticancer activity of [Cu(L)(OAc)]**

Fluorescence microscopy finds the formation of reactive oxygen species on treatment of the cancer cells with the Cu-complex. The IC_{50} value of the Cu-complex is measured as $0.72 \mu\text{M}$ which is lower than that of cisplatin against A549.

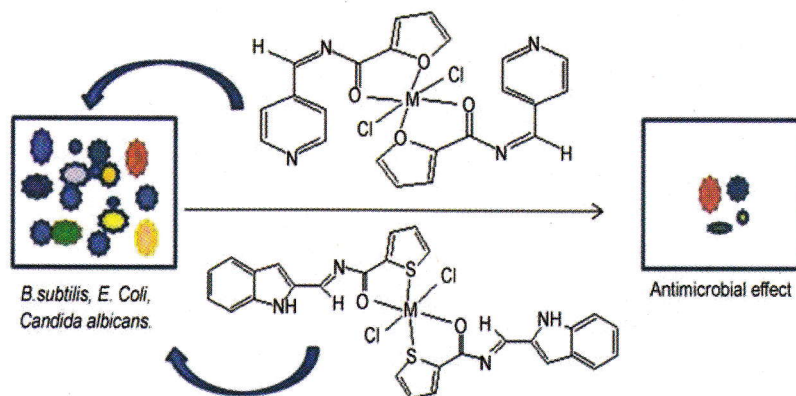


ROS generation by Cu-complex with its increasing concentration

Chinmoy Biswas, Arnab Chatterjee, Sreelekshmi Sreekumar, Manikantan Shyamala Kiran* & Rajarshi Ghosh*

- 538 **Synthesis, characterization and antimicrobial studies of novel Schiff bases and their complexes**

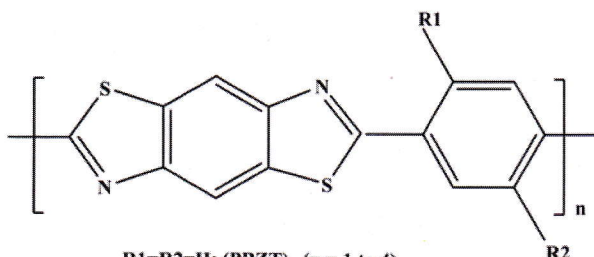
Mononuclear complexes of Ni(II) and Cu(II) of novel Schiff bases, Furan-2-carboxylic acid pyridin-4-ylmethyleneamide and Thiophene-2-carboxylic acid 1H-indol-2-ylmethyleneamide have been synthesized and characterized. The complexes have shown antimicrobial activity against *Bacillus subtilis*, *Escherichia coli* and *Candida albicans*.



Biju Jacob & Riya Datta*

- 545 **Structure and electronic properties of mono and dimethyl substituted poly(*p*-phenylenebenzobisthiazole) oligomers: A computational study**

The Δ_{H-L} , IPs, EAs, E_g s, and λ_{max} of the respective polymer have been obtained using oligomeric extrapolation technique. From the reorganization energy point of view, these can be used as electron transport materials in light emitting diodes devices.



$R_1=R_2=H$; (PBZT) $_n$ ($n = 1$ to 4)

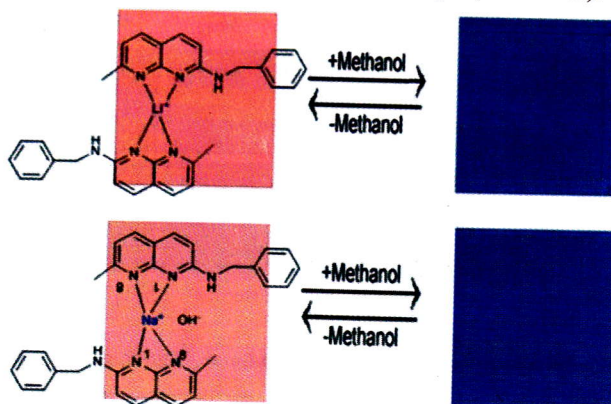
$R_1=CH_3$, $R_2=H$; (Me-PBZT) $_n$ ($n = 1$ to 4)

$R_1=CH_3$, $R_2=H$; (Me-PBZT) $_n$ ($n = 1$ to 4)

J Laxmikanth Rao*

556 Vapourchromic alkali metal ions complexes based on 2-phenmethylamino-7-methyl-1,8-naphthyridine

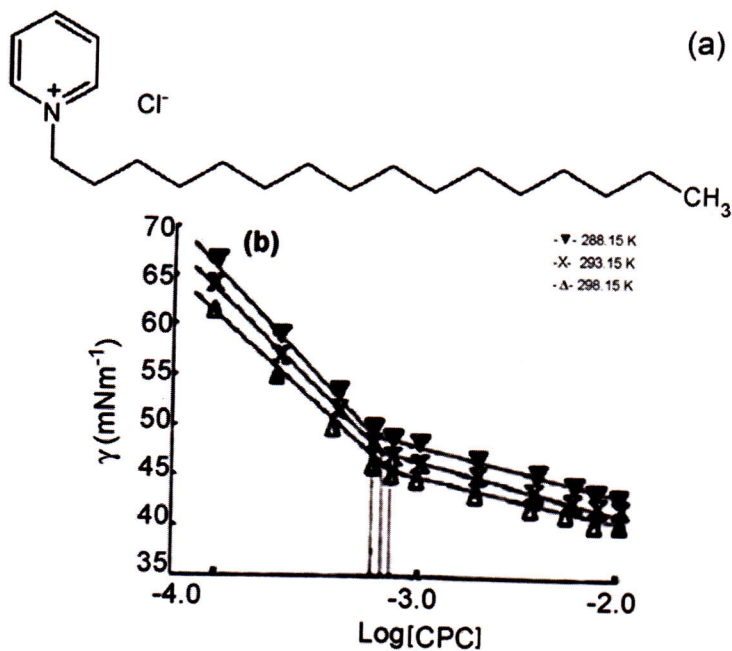
Two 2-phenmethylamino-7-methyl-1,8-naphthyridine/alkali metal ions (Li^+ and Na^+) complexes are synthesized to detect methanol or ethanol vapour at ambient temperature. These phenomena are reversible and rapid (about 5-10s).



Quan-Qing Xu, Wei-Hua Mu, Zhi Yang & Feng-Yi Liu*

561 Influence of some added electrolytes on the surface and thermodynamic properties of cetylpyridinium chloride in aqueous medium

The effect of an added electrolyte on decreasing critical micelle concentration of cetylpyridinium chloride is found to be in the order $(\text{AlCl}_3) > (\text{CaCl}_2) > (\text{NaCl})$, which falls in the same order as of the moles chloride ions furnished by each mole of the added electrolyte.



(a) Molecular structure of cetylpyridinium chloride and (b) plot for surface tension as a function of Log [CPC] for CPC+H₂O system

Suman Bala, Ram Partap*, D K Tyagi & O P Yadav

Authors for correspondence are indicated by (*)