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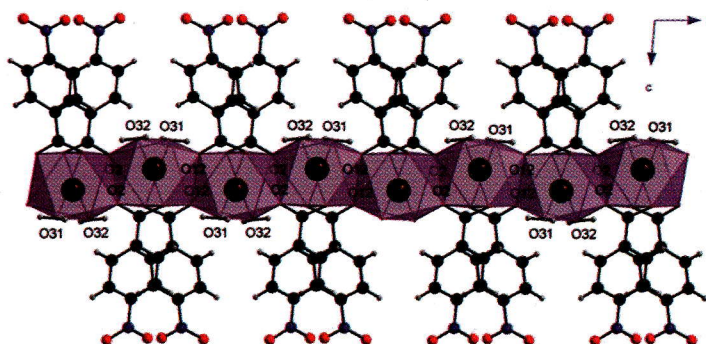
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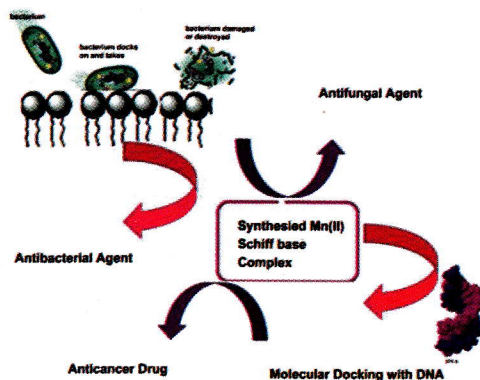
Papers

- 785** Structural characterization of *catena*-[bis(μ -4-nitrobenzoato)-diaqua-calcium 4,4'-bipyridine] and *catena*-[bis(μ -4-nitrobenzoato)-diaqua-calcium 1H-1,2,4-triazole] The syntheses, crystal structures and properties of *catena*-[bis(μ -4-nitrobenzoato)-diaqua-calcium 4,4'-bipyridine] **1** and *catena*-[bis(μ -4-nitrobenzoato)-diaqua-calcium 1H-1,2,4-triazole] **2** are reported.



Bikshandarkoil R Srinivasan*, Kiran T Dhavskar & Pallegogu Raghavaiah

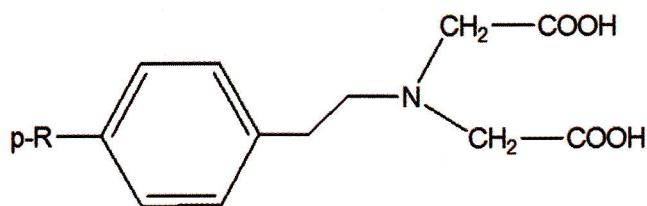
- 797** Synthesis, characterization and biological evaluation of heterocyclic triazole derived Schiff base ligands comprising Mn(II) complexes: Implications of their DNA/protein binding docking and anticancer activity studies Mn(II) complexes of two novel heterocyclic triazole derived Schiff base ligands have been synthesized using 3-chlorobenzaldehyde, 4-methoxybenzaldehyde with 1H-1,2,4-triazol-3-amine backbone. Both the ligands and metal complexes exhibit excellent antimicrobial activity under low inhibitory concentration such MIC \leq 250 μ g/mL.



T V Sangeetha, S Mohanapriya & N Bhuvanewari*

- 806 **Nickel(II) chelates with N-phenethyl-aminodiacetate(2-)-like ligands: Synthesis, crystal structure and spectroscopic studies**

Crystal structures of Ni(II) chelates with N-*p*-(R)-phenethyliminodiacetates(2-) (R = MeO or F) are iso-structural. In the molecular structures, the R groups are not involved in H-bonding or ring-stacking interactions.

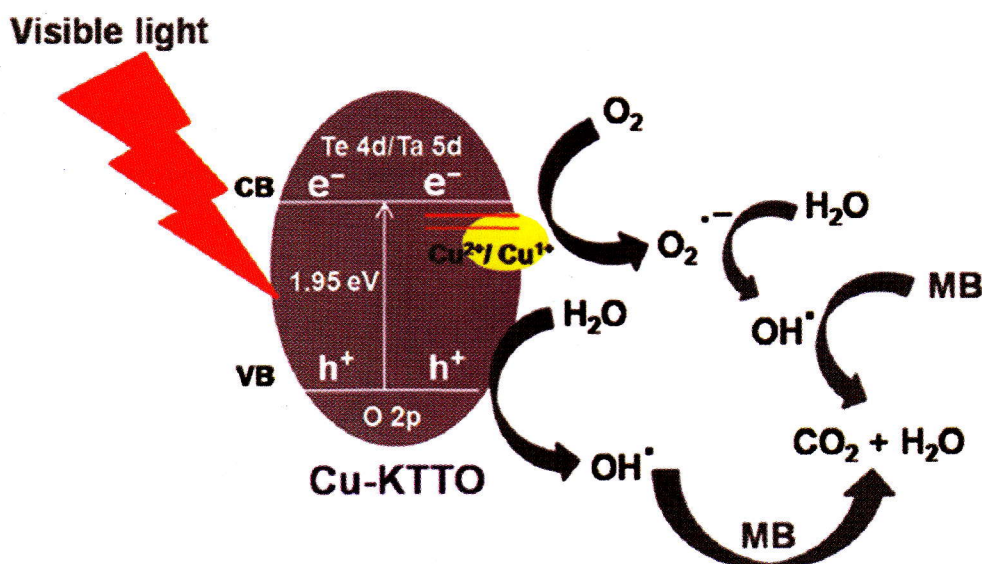


Ligand (H ₂ L)	R =	Space group of the complex
H ₂ Mopheida	CH ₃ O-	P2 ₁ /c
H ₂ Fpheida	F-	P2 ₁ /c

Dheerendra Kumar Patel*, Duane Choquesillo-Lazarte, Alicia Domínguez-Martín, Josefa María González-Pérez & Juan Niclós-Gutiérrez

- 812 **Transition metal ion (Ni²⁺, Cu²⁺ and Zn²⁺) doped defect pyrochlore, KTaTeO₆: Synthesis, characterization and photocatalytic studies**

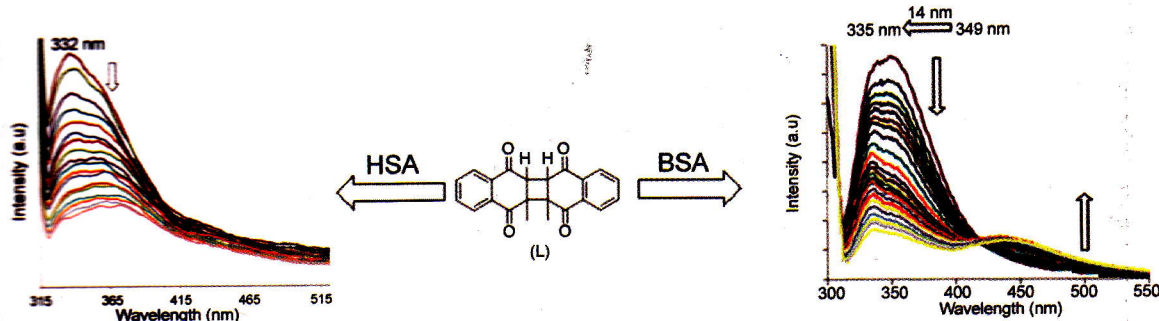
Here, we have reported the M²⁺ (M = Ni, Cu and Zn)-doped KTaTeO₆ towards the photocatalytic degradation of MB dye under visible light irradiation. Among the samples, the Cu-doped KTaTeO₆ showed the higher photocatalytic activity towards the MB degradation owing to its lower bandgap energy and effective reduction in the rate of electron-hole recombination.



M Sudheera, P Venkataswamy, K Ramaswamy, G Ravi, N Chittibabu & M Vithal*

134 Investigation on bindings of a binaphthoquinone derivative with serum albumin proteins by fluorescence spectroscopy

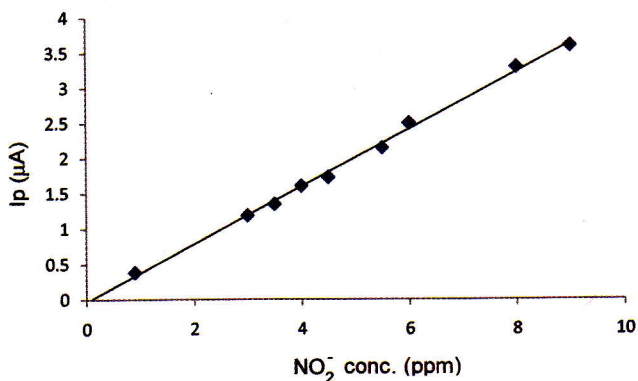
Fluorescence emission of L with BSA and HSA are carried out and fluorescence quenching emission is found to be static in nature. The binding affinity of BSA is more than HSA towards L due to strong interaction between BSA and L. Molecular docking of 2-methyl-1,4-naphthoquinone adduct with BSA and HSA shows that L binds nearer to Trp-213.



Jubaraj B Baruah* & Bigyan R Jali*

130 Method development for the voltammetric determination of nitrite in diverse matrices

The wider linear range of 0.9 $\mu\text{g/ml}$ to 9 $\mu\text{g/ml}$ and higher sensitivity (0.7 $\mu\text{g/ml}$) has enabled the determination of nitrite in samples of natural waters and industrial wastes using DPP method.



Pradeep Sharma* & Sonal Barmera

Authors for correspondence are indicated by (*)

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