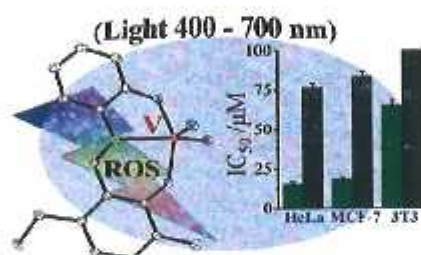


CONTENTS

805 Vitamin-B6 Schiff base dioxovanadium(V) complex for targeted visible light-induced anticancer activity

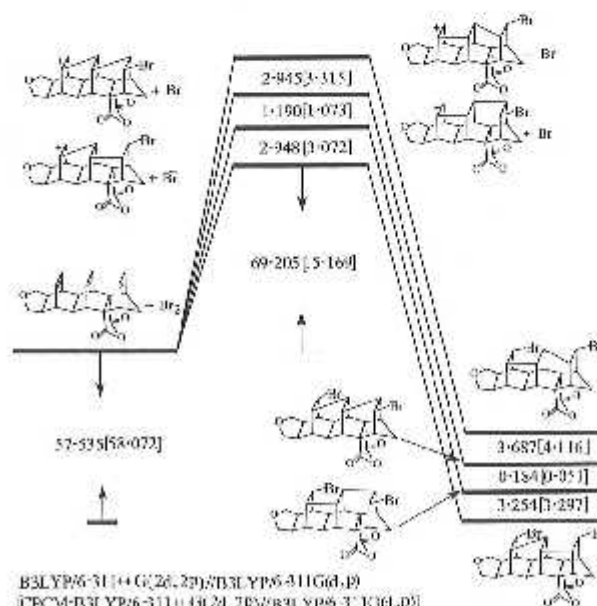
The structurally characterized dioxovanadium(V) vitamin-B6 Schiff base complex with a *cis*-oriented VO_2^+ moiety, $[\text{VO}_2\text{L}]$ (**1**), where $\text{H}_2\text{L}\cdot\text{HCl}$ is 3-hydroxy-5-(hydroxymethyl)-4-((2-hydroxyphenyl)imino)-methyl) 2-methylpyridin-1-ium chloride, shows cancer cell targeting and significant photo-cytotoxicity in visible light by ROS-mediated apoptosis with low dark toxicity. The photocytotoxicity is significantly more in the HeLa and MCF-7 cancer cells in comparison with 3T3 normal cells.



Arun Kumar, Samya Banerjee, Sanjoy Mukherjee & Akhil R Chakravarty*

814 DFT study of the mechanism and stereochemistry of electrophilic transannular addition reaction of bromine to 6-oxa-heptacyclo[9.6.2.2^{3,9}.1^{3,16}.0^{2,10}.0^{4,8}.0^{12,17}]docosan-14,18,20-triene-12,17-dicarboxylic anhydride

The nucleophilic attack of bromide anion (Br^-) on the cation centre of U-N-type ion occurs on the endo face. As a result the *exo,endo*-dibromide isomer of U-N type product, which is 6.913 kcal mol⁻¹ more stable than the *exo,exo*-isomer, is obtained.

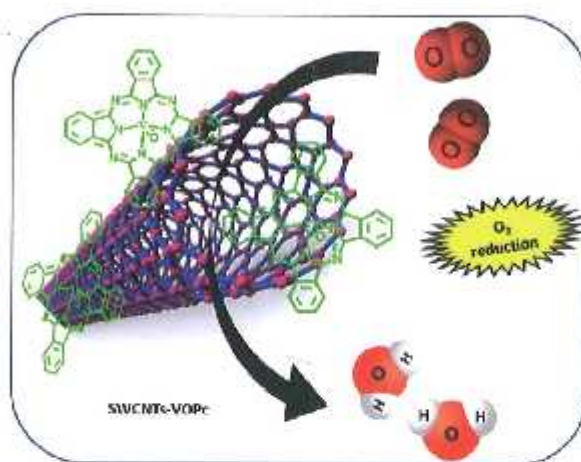


Rza Abbasoglu* & Abdurrahman Atalay

Notes

- 821 **Single walled carbon nanotubes decorated vanadyl phthalocyanine composite for electrochemical oxygen reduction in fuel cells**

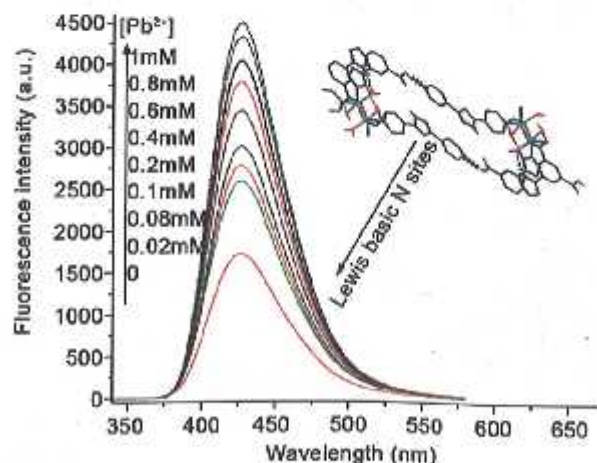
GC/SWCNTs-VOPc electrode exhibits a pair of peaks at -265 and -97 mV (at 20 mV s $^{-1}$ in 0.1 M H $_2$ SO $_4$) due to the characteristic redox process, V $^{IV/III}$, of VOPc. It efficiently reduces oxygen in 0.1 M H $_2$ SO $_4$ with a low onset potential of 0.16 V. It also exhibits significant storage stability, retaining 91% of its original catalytic reduction current after 10 days storage at room temperature in air under dry conditions.



Piyush Kumar Sonkar, Vellaichamy Ganesan^{*},
Ravi Kant Singh, Dharmendra Kumar Yadav,
Rupali Gupta & Mamta Yadav

- 826 **A supramolecular microporous network of zinc(II) coordination polymer for highly selective fluorescent detection of Pb $^{2+}$**

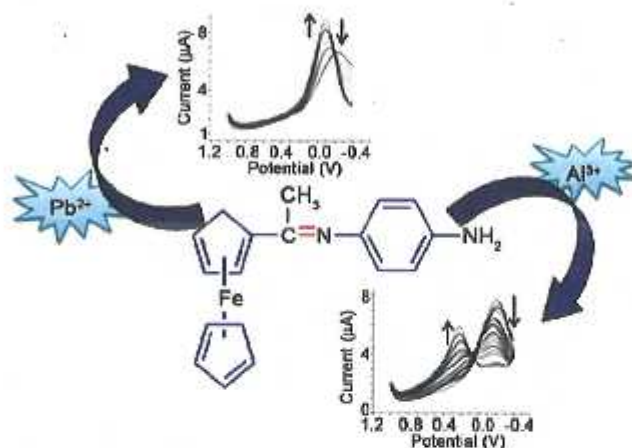
A hydrogen bonded microporous network with Lewis basic N sites has been hydrothermally prepared by dual ligand synthetic strategy. With fast detection time, excellent selectivity and high sensitivity, this microporous network is capable of detecting trace Pb $^{2+}$ ions (10^{-5} – 10^{-6} mol L $^{-1}$) in biological and environmental materials.



Ling-Yun Xin, Yun-Ping Li, Feng-Yang Ju,
Xiao-Ling Li & Guang-Zhen Liu^{*}

832 Schiff base modified Pt electrode as sensor for detecting Al(III) and Pb(II)

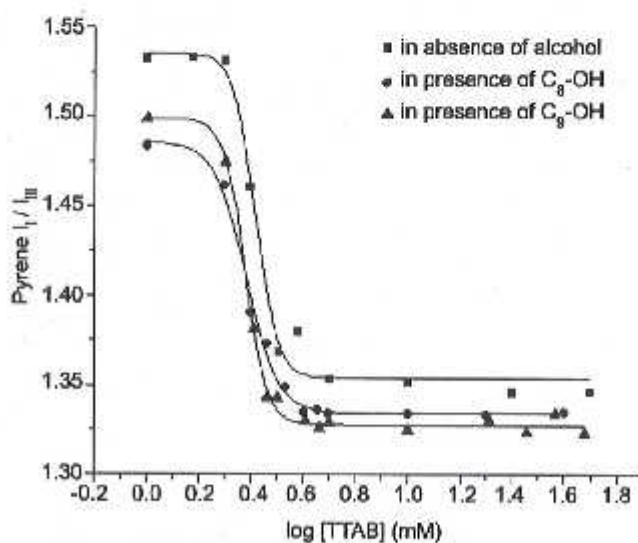
The square wave voltammogram of the Pt electrode with its surface modified with the condensation product of *p*-phenylenediamine and acetylferrocene (PPDA-AcFc) in aqueous medium gradually shifts by 0.440 V in the positive direction and by 0.090 V in negative direction on interaction with Al³⁺ and Pb²⁺ respectively. EIS study shows that its charge transfer resistance increases in the case of Al³⁺, while it decreases in the case of Pb²⁺. The linear range of detection is 0-12 μM and 0-6 μM for Al³⁺ and Pb²⁺ respectively.



Kangkana Deka & Diganta Kumar Das*

838 Self-assembly of tetradecyltrimethylammonium bromide in long chain alcohols

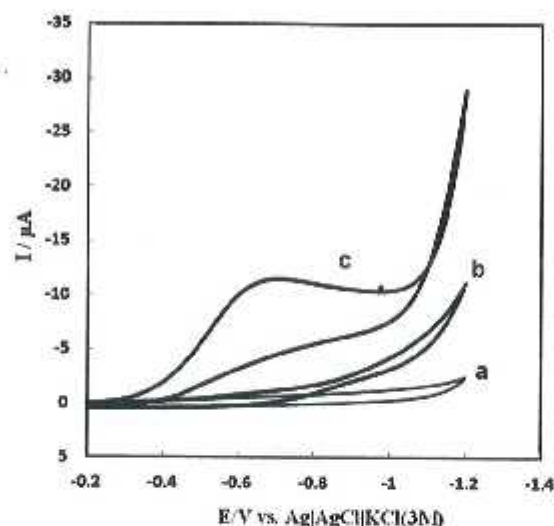
The effect of organic additives, C₈-OH and C₉-OH, on the micellar behavior of the cationic surfactant, tetradecyltrimethylammonium bromide is reported.



Neelima Dubey

843 Synthesis of silver nanocatalyst in presence of poly(ethylene glycol) and its application for electrocatalytic reduction of hydrogen peroxide

Synthesis of Ag NPs in presence of poly(ethylene glycol) as reducing agent and stabilizer in aqueous medium is reported. The catalytic activity of the nanocrystalline AgNPs, for reduction of H_2O_2 is studied at the surface of glassy carbon electrode modified with Ag NPs and poly(methyl methacrylate) prepared by casting of the AgNPs-PMMA solution on GCE. The sensor responds to H_2O_2 with high selectivity, good reproducibility and stability, over a linear range of 22–1700 μM with a detection limit of 4.8 μM .



Samira Ghasemi, Jahan Bakhsh Raouf*,
Fereshteh Chelkin & Reza Ojani

Authors for correspondence are indicated by (*)

Now Subscription Payment Made Easy

Indian Journal of Chemistry, Sec A Subscribers
You can now pay through
ECS /NEFT /RTGS

Following are the details:

Bank Name: SYNDICATE BANK
Address: PUSA CAMPUS, IARI, NEW DELHI 110 012
Branch: PUSA CAMPUS, IARI, NEW DELHI
A/C No.: 90292160000079
A/C Name: NISCAIR, NEW DELHI 110 012
IFSC Code: SYNB0009029
MICR Code: 110025041
Branch Code: 9029
SWIFT Code: SYNBINBB019

*Please send UTR no. with full postal address by e-mail
after payment through ECS/NEFT/RTGS to:
sales@niscuir.res.in*