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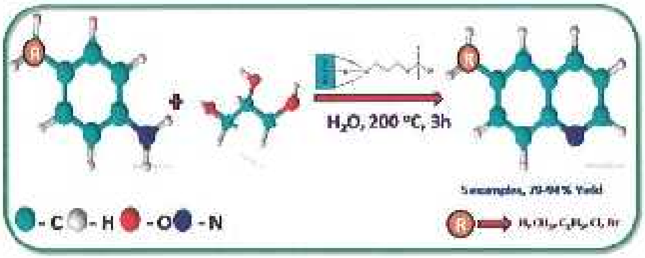
CONTENTS

919 **Synthesis of quinolines from glycerol over tungstic acid functionalized mesoporous KIT-6 catalyst in aqueous medium**

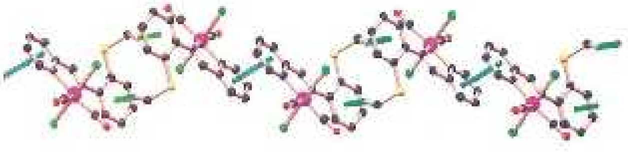
With mesoporous tungstic acid functionalized KIT-6 nanoparticles as catalyst in the Skraup synthesis of glycerol, aniline and water as solvent, the target quinoline and its derivatives are obtained in up to 89% yield with complete conversion of glycerol (100%) under the reaction conditions of 200 °C for 3 h. The *para* substituted anilines with electron-rich groups afford higher yields as compared to those with electron-deficient groups.



V Udayakumar & A Pandurangan*

929 **Ruthenium carbonyl complex bearing thioether containing Schiff base ligand: Structure, electrochemistry and catalytic activity**

Ruthenium(II) carbonyl complex, *cis*-(CO)-*trans*-(Cl)-$[Ru(CO)_2(L)Cl_2]$ (L = 2-(methylthio)-N-((pyridine-2-yl)methylene)-benzenamine), has been synthesized. The pseudo-octahedral geometry of the complex has been confirmed by single crystal X-ray diffraction data. Cyclic voltammetry exhibits irreversible Ru(II)/Ru(III) oxidation along with irreversible ligand based reduction; the redox properties are supported by DFT calculations. The electronic spectrum of the complex has been interpreted by spin allowed electronic transitions computed by TDDFT method and is in good agreement with the experimental spectrum. Quantum yield calculations and lifetime measurement emission show quantum yield of the complex to be 0.027, while the emission lifetime of the complex is found to be 3.93 ns. The ruthenium(II) complex efficiently catalyzes the oxidation of alcohols (77-84%) in presence of N-methylmorpholine-N-oxide.



Sujan Biswas, Puspendu Roy, Deblina Sarkar & Tapan Kumar Mondal*

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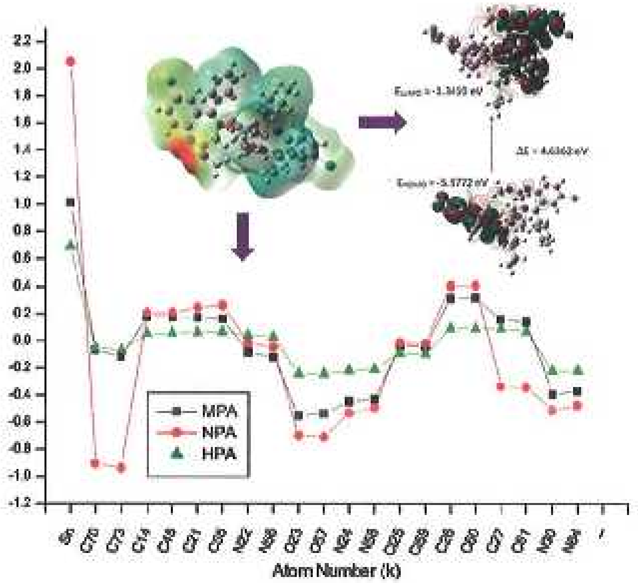
938 **Structure and reactivity of di-*n*-butyltin(IV) derivative of chlordiazepoxide based on electronic structure calculations**

A DFT study on n-Bu_2SnL_2 (L = monoanion of chlordiazepoxide) calculates a distorted tetrahedral geometry around the central Sn atom, and different degrees of interaction for the two chlordiazepoxide units with the di-*n*-butyltin(IV) moiety.



Sandeep Pokharia*, Rachana Joshi, Mamta Pokharia, Swatantra Kumar Yadav & Hirdyesh Mishra

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Notes

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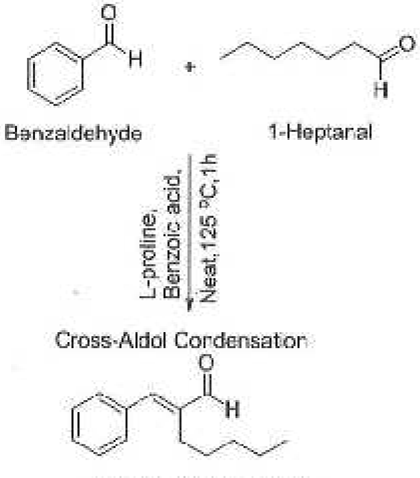
950 **Bifunctional organocatalysts for the synthesis of jasminaldehyde and their derivatives**

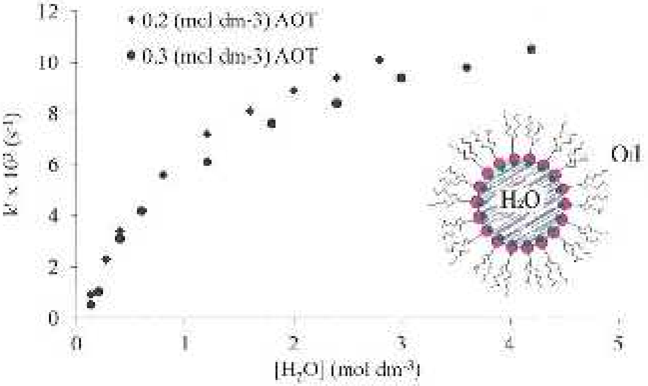
Jasminaldehyde is synthesized by cross-aldol condensation of benzaldehyde with 1-heptanal under solvent free condition and in presence of L-proline in combination with benzoic acid. Under the optimized reaction conditions, jasminaldehyde is formed with 96% selectivity in one hour with the desired arylaldehyde:1-alkanaldehyde ratio as low as 2:1 under controlled addition of 1-alkanaldehyde.



Venkata Subba Rao Ganga, Sayed H R Abdi*, Rukhsana I Kureshy, Noor-ul H Khan & Hari C Bajaj*

956 **Catalysis by AOT reverse micelles – Kinetics of aquation of bis(2,4,6–tripyridyl-s-triazine)iron(II) and acid hydrolysis of 2,2′,6,6″ terpyridyl iron(II) in the presence of AOT/heptane**

The aquation of $\{Fe(tptz)_2\}^{2+}$ is very slow and incomplete in aqueous medium while the reaction is accelerated markedly in AOT reverse micelles. The catalysis observed in reverse micelles is due to the special properties of water pool-like high nucleophilicity of water and the low dielectric constant.



M Padma, P Shyamala* & P V Subba Rao

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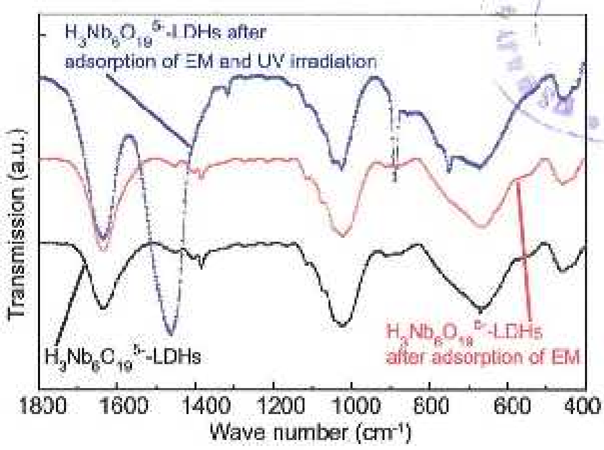
962 **Structural features and photocatalytic performance of $H_3Nb_6O_{19}^{5-}$ intercalated Ni-Ti-LDHs**

Ni-Ti-layered double hydroxides have been synthesized by co-precipitation and modification by $H_3Nb_6O_{19}^{5-}$ polyanion and characterized by PXRD, SEM, TEM, FT-IR and UV-vis DRS data. The photocatalytic performance has been evaluated by oxidation of ethyl mercaptan as a probe molecule. The results show that there is an obvious interaction between $H_3Nb_6O_{19}^{5-}$ and the laminates, and the interlayer $H_3Nb_6O_{19}^{5-}$ polyanion enhances the adsorption and photocatalytic performance of Ni-Ti-LDHs for oxidation of ethyl mercaptan.



Hong Liu*, Wei Gao, Xianying Lin & Jie He

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967 **Guide to Authors**

Authors for correspondence are indicated by (*)