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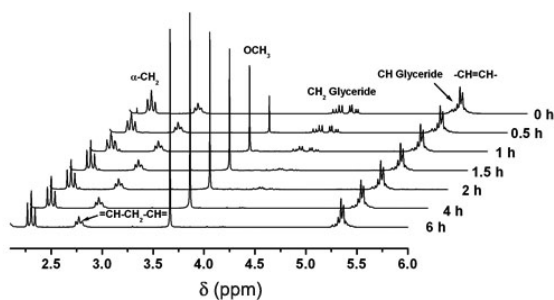
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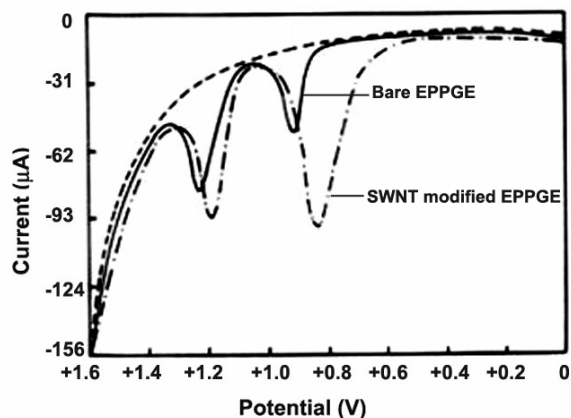
CONTENTS

- 1017 Lanthanum and zinc incorporated hydrotalcites as solid base catalysts for biodiesel and biolubricants production** Calcined hydrotalcites doped with varying amounts of La^{3+} and Zn^{2+} ions exhibit high catalytic activity for biodiesel and biolubricants production. Catalytic activity varies with the basicity of the catalysts.



R Rahul, Jitendra K Satyarthi & D Srinivas*

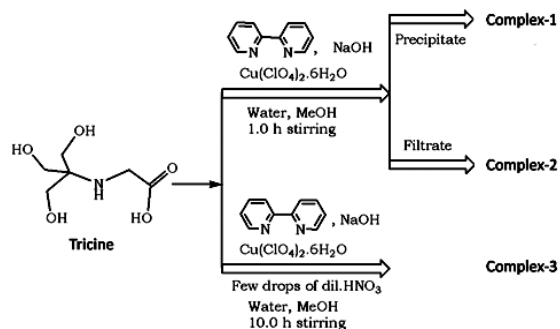
- 1026 Electrochemical sensor for the simultaneous voltammetric determination of adenosine and adenine** Sensor based on bare and single walled carbon nanotubes modified edge plane pyrolytic graphite electrode is reported for the simultaneous determination of adenine and adenosine in phosphate buffer of pH 7.2. The modified electrode exhibits enhanced electrocatalytic properties towards adenosine and adenine with a peak potential of ~ 1190 mV and ~ 856 mV, respectively.



Rajendra N Goyal*, Sunita Bishnoi & Rakesh K Singh

- 1035** **Reactivity of tricine in the presence of $\text{Cu}(\text{ClO}_4)_2 \cdot 6\text{H}_2\text{O}$ and 2,2'-bipyridine: Synthesis, characterization and magnetic property of the complexes**

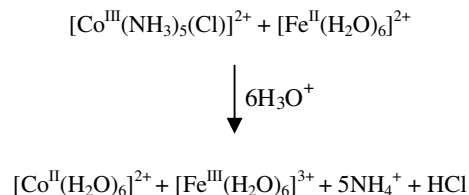
Tricine in the presence of $\text{Cu}(\text{ClO}_4)_2 \cdot 6\text{H}_2\text{O}$ and 2,2'-bipyridine in alkaline medium gives mononuclear, dinuclear and hexanuclear $\text{Cu}(\text{II})$ complexes.



Vinod Kumar Yadav, Niraj Kumari & Lallan Mishra*

- 1043** **Organized media as redox catalysts on the reaction rate of Co^{III} - Fe^{II} redox couple**

The presence of various organized media (micelles/ reverse micelles/ Cu nanoparticles/ different salts or urea in presence of surfactant) affects the reaction rate of the Co^{III} - Fe^{II} redox couple. Coulombic and non-coulombic forces bear a profound influence on the encounter probability.

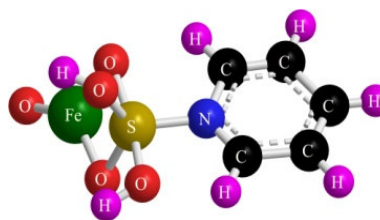


Mousumi Mukherjee & Ambikesh Mahapatra*

Notes

- 1050** **Surface acidic properties of sulphated Fe_2O_3 - TiO_2**

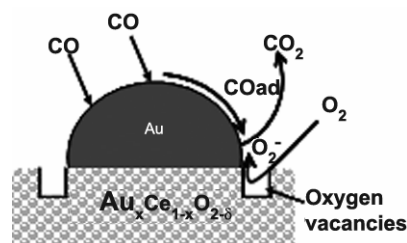
The possible structure for pyridine adsorbed sulphated Fe_2O_3 - TiO_2 has been investigated employing DFT and DRIFT spectra.



K Joseph Antony Raj, M G Prakash, R Shanmugam,
K R Krishnamurthy & B Viswanathan*

1056 Enhanced activity of Au catalysts from extra-high surface area CeO₂ for CO oxidation

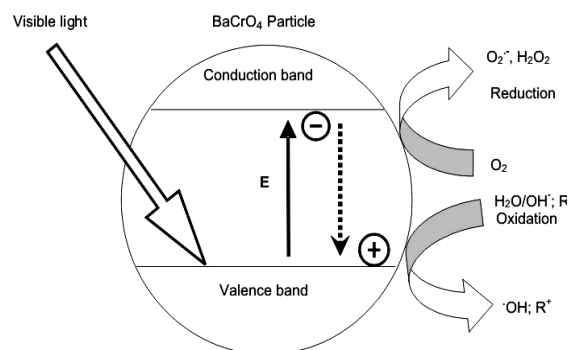
CO adsorbed on Au particles reacts with active oxygen species provided by oxygen vacancies in Au_xCe_{1-x}O_{2-δ} solid solutions.



Ling-Yun Jin, Cun-Xia Guo, Yue-Juan Wang,
Ji-Qing Lu & Meng-Fei Luo*

1061 BaCrO₄ assisted visible light induced advanced oxidation process for mineralizing Azur B

The photocatalyst BaCrO₄ has been utilized to photocatalytically degrade Azur B in presence of visible light. Electron acceptors like NaCl and Na₂CO₃ retard the rate of photocatalytic degradation, whereas oxidants such as H₂O₂ and K₂S₂O₈ increase the degradation rate. The degradation efficiency was found to be substantially high at around neutral pH. Complete degradation of the dye has been confirmed using UV spectrum analysis.



Brijesh Pare*, Vijendra Singh & S B Jonnalagadda

Authors for correspondence are indicated by (*)