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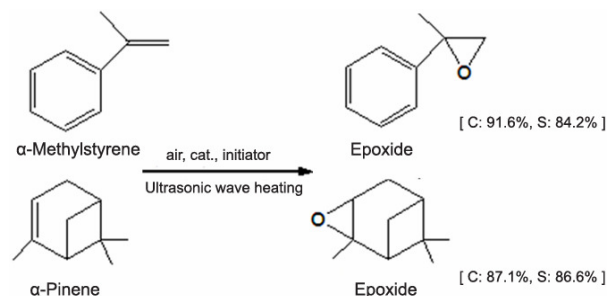
NUMBER 6

JUNE 2013

CONTENTS

709 Epoxidation of mixed bi-olefins with air over nanosized Co_3O_4 assisted by ultrasonic waves

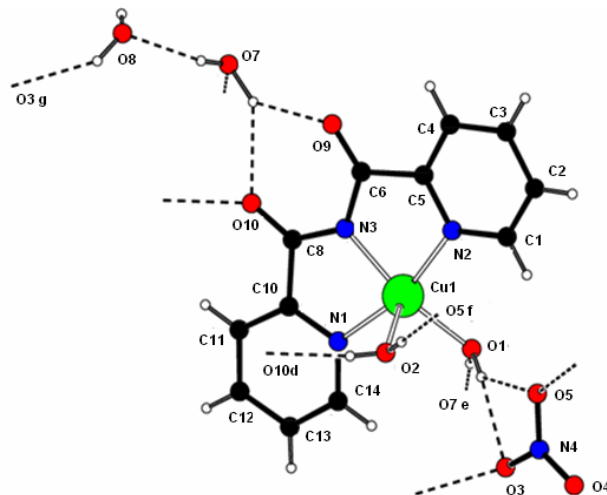
Nanosized Co_3O_4 prepared by a simple method is active in the epoxidation of mixed bi-olefins with dry air aided by ultrasonic waves. When α -methylstyrene and α -pinene are mixed in the molar ratio of 1:1, both conversion and selectivity are distinctly promoted and are much superior to those of α -methylstyrene or α -pinene alone. Varying effects are seen with other alkenes mixed with cyclooctene at the molar ratio of 1:5.



J Lei, X-H Lu*, J-L Zhang, X-L Wei, D Zhou & Q-H Xia*

717 Copper(II) promoted hydrolysis of 2,4,6-tris(2-pyridyl)-1,3,5-triazine: Synthesis, characterization and biological activities of the hydrolytic products

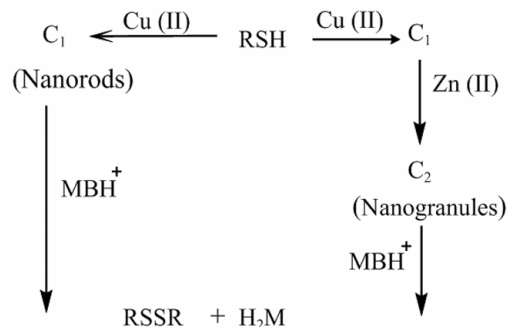
Two new copper(II) complexes, viz., $[\text{Cu}(\text{IDA})\text{C}_6\text{H}_5\text{N}_2\text{O}]\cdot 2\text{H}_2\text{O}$ and $[\text{Cu}\{(\text{NC}_5\text{H}_4\text{CO})_2\text{N}\}(\text{H}_2\text{O})_2]\text{NO}_3\cdot 2\text{H}_2\text{O}$, have been synthesized and structurally characterized by single crystal X-ray diffraction studies. Both the complexes show significant hydrogen bonding and non-covalent $\pi\cdots\pi$ stacking interactions.



Ram N Patel*, Vishnu P Sondhiya,
Dheerendra K Patel, Krishna K Shukla,
Dinesh K Patel & Yogendra Singh

- 724** **Cu(II)-catalysed oxidation of bioactive substrates by methylene blue in acidic medium assisted by Zn(II): Possible role of nanoparticles**

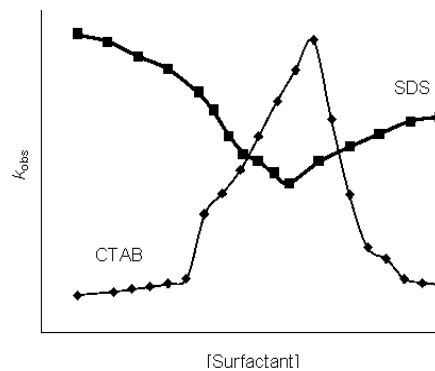
Cysteine hydrochloride and 2-mercaptoethylamine hydrochloride are catalyzed by Cu(II) in acidic medium involving the participation of Cu nanoparticles. On addition of Zn(II) (an inactive metal ion) to the reaction, the rate increases appreciably. TEM and SAED studies reveal a change in morphology of the nanoparticles on adding Zn(II) which probably causes its synergetic effect.



**K K Mishra*, Ritu Gupta, Maya Shukla,
Ranu Chaturvedi, Mahender Pal & Ranjana Sharma**

- 732 Influence of cetyltrimethylammonium bromide/
sodium dodecyl sulfate micelles on the oxidation
of L-arginine by N-bromophthalimide in presence
of HClO_4

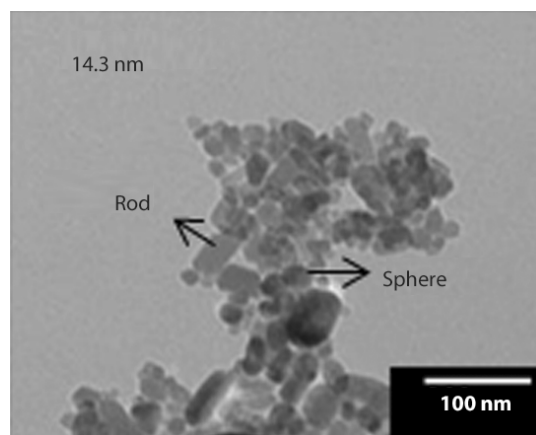
Oxidation reaction of L-arginine by N-bromophthalimide has been studied in micellar systems of CTAB and SDS. CTAB strongly enhances the rate of reaction while SDS has an inhibitory action.



Yokraj Katre*, Namita Goyal, Radhika Sharma & Ajaya Kumar Singh

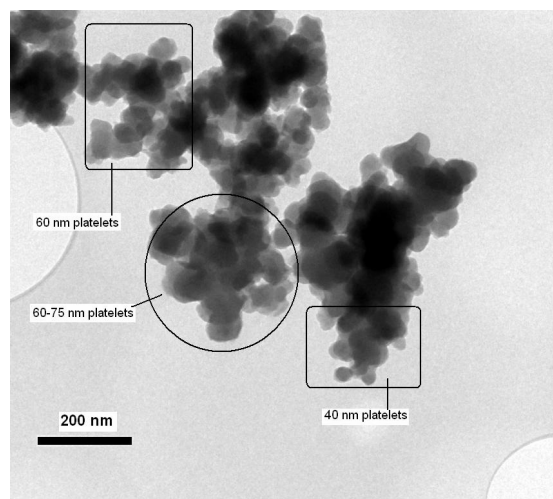
Notes

- 739** **Mechanochemical synthesis of sodium doped hydroxyapatite powder** Sodium ion is doped into HA by sodium hydroxide precursor in a dry mixture of $\text{Ca}(\text{OH})_2$ and $(\text{NH}_3)_2\text{HPO}_4$. A mixture of rods and spheres is found in the Na^+ doped HA.



Sharifah Adzila, Iis Sopyan*, Ramesh Singh,
Erlani Pusparini & Mohd. Hamdi

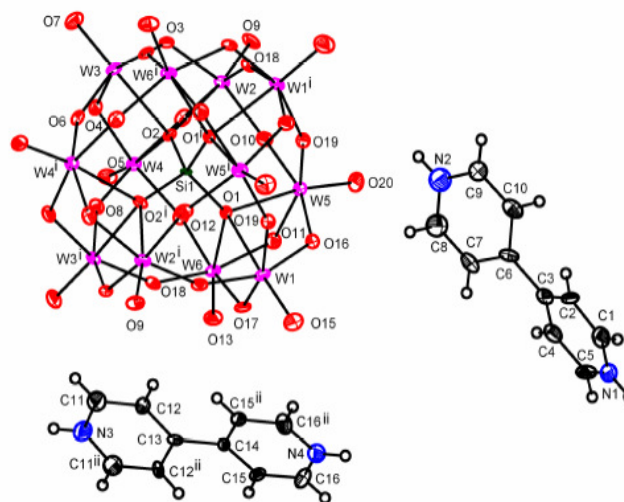
- 744** **Synthesis and properties of polypyrrole obtained from a new Fe(III) complex as oxidizing agent** Highly conducting polypyrrole (50 S/cm) is obtained with a new complex synthesized from FeCl_3 and lauryl sulphate as oxidizing agent.



Chepuri R K Rao*, R Muthukannan, J Adriel Jebin,
T Antony Raj & M Vijayan

749 **Hydrothermal synthesis and characterization of
bis(4,4'-bipyridinium) dodecatungstosilicate dihydrate**

Rajarshi Chatterjee, Dipak K Hazra,
Monika Mukherjee, M Nethaji & Mohammad Ali*



753 **Guide to Authors**

Authors for correspondence are indicated by (*)