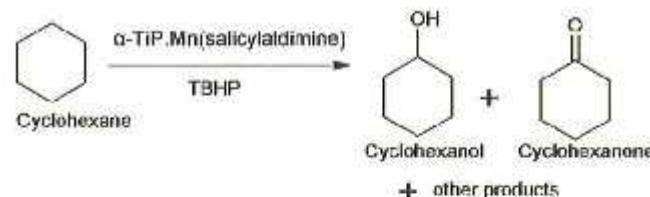


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VOLUME 55A**NUMBER 4****April 2016****CONTENTS**

- 403 Heterogeneous catalyst Mn(salicylaldimine) complex covalently bonded to α -titanium phosphate: Synthesis, characterization and catalytic activity for oxidation of cyclohexane

The heterogeneous catalytic system, α -TiP.Mn(salicylaldimine)/TBHP, gives a maximum of 14.75% conversion and 91.70% selectivity for KA oil in oxidation of cyclohexane. The catalyst can be reused for four cycles.



S Khare*, P Shrivastava, J S Kirar & S Parashar

- 413 Experimental and theoretical spectral investigations of 5-chloro-*ortho*-methoxyaniline using FT-IR, FT-Raman and DFT analysis

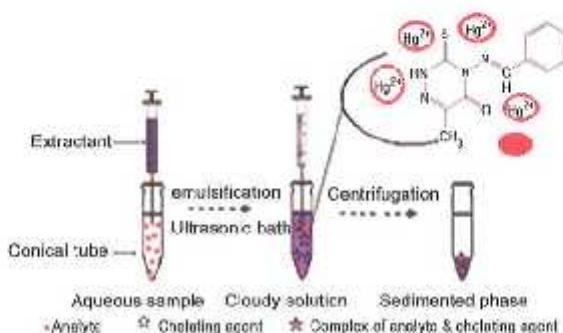
Vibrational spectral analyses have been carried out using FT-IR and FT-Raman spectra for 5-chloro-*ortho*-methoxyaniline. The fundamental vibrational frequencies and intensity of vibrational bands are evaluated by DFT calculations.



G Venkatesh, M Govindaraju* & P Vennila

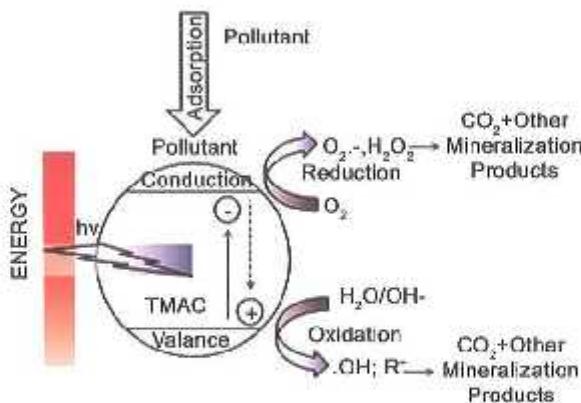
Notes

- 423 Ultrasound assisted emulsification microextraction for selective determination of trace amount of mercury(II)



Leila Hajaghbabaei*, Saeed Zandinejad, Sana Berijani & Saeed Suzangarzadeh

- 429 Synthesis and characterization of titania-magnetic activated carbon composite for photocatalytic degradation and mineralization of *p*-nitrophenol



Surabhi N Shintre & Pragati Thakur*

- 435 Host-guest complexation between 3-hydroxyflavone and β-cyclodextrin: Preparation, characterization and cytotoxicity studies

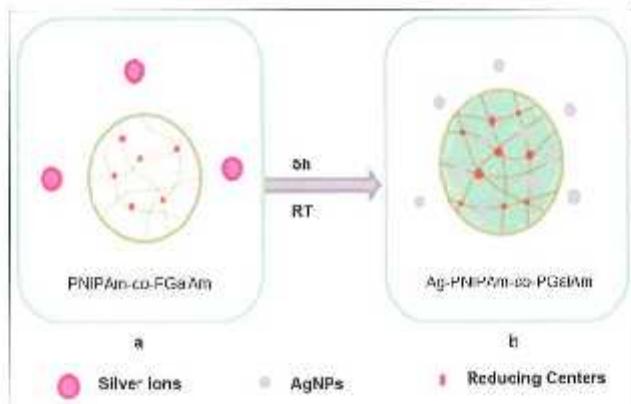
Inclusion complex of HF with β-CD has been prepared by various synthetic method such as physical, kneading and co-precipitation methods. No major difference is observed between the cytotoxic activities of pure HF and its solid complex against breast cancer cell line.



Arumugam Praveena,
Meenakshi Sundaram Swaminathan,
Samikannu Prabhu & Rajaram Rajamohan*

441 *In situ* formation of silver nanoparticles in thermosensitive glycogels and evaluation of its antibacterial activity

Colloidal AgNPs have been synthesized using PNIPAm-*co*-PGalAm hydrogel, where the anionic masked aldehyde of sugar moiety plays the role of reducing agent. As an excellent stabilizer, PNIPAm anchors the AgNPs in the hydrogel, while with PGalAm as a reducing agent the AgNPs formed are well distributed on the surface of the hydrogel. This gel composite shows enhanced antibacterial activity.



Anuja S Kulkarni, Vaishali P Dhanwe,
Archana B Dhumure, Ayesha Khan,
Vaishali S Shinde* & Pawan Kumar Khanna*

447 Synergistic interactions in W/O microemulsions containing imidazolium based C₁₂mimBr and sodium lauryl sulfate

The physicochemical properties and synergistic effects of W/O microemulsion systems containing imidazolium based surfactant, 1-dodecyl-3-methylimidazolium bromide (C₁₂mimBr)-sodium lauryl sulfate (SLS)/alcohol/alkane/5% NaCl solution at different molar ratios of water-to-surfactant (ω_0) are studied. The W/O microemulsions are formed at the molar fractions of SLS-to-C₁₂mimBr+SLS (X_{SLS}) ranges of 0.0-0.3 and 0.7-1.0. Synergism between C₁₂mimBr and SLS is found to exist in the W/O microemulsions containing these two surfactants.

J L Chai*, J Q Zhang, N Lin, N Hou, J W Song,
Y Zhang & J J Lu

Authors for correspondence are indicated by (*)