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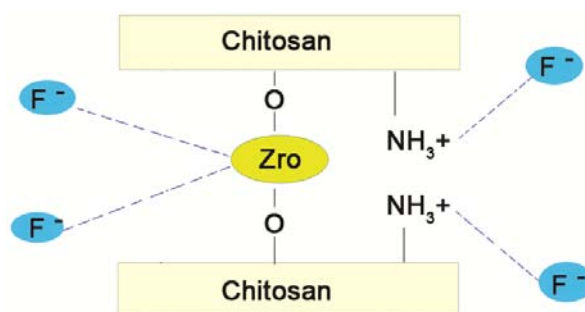
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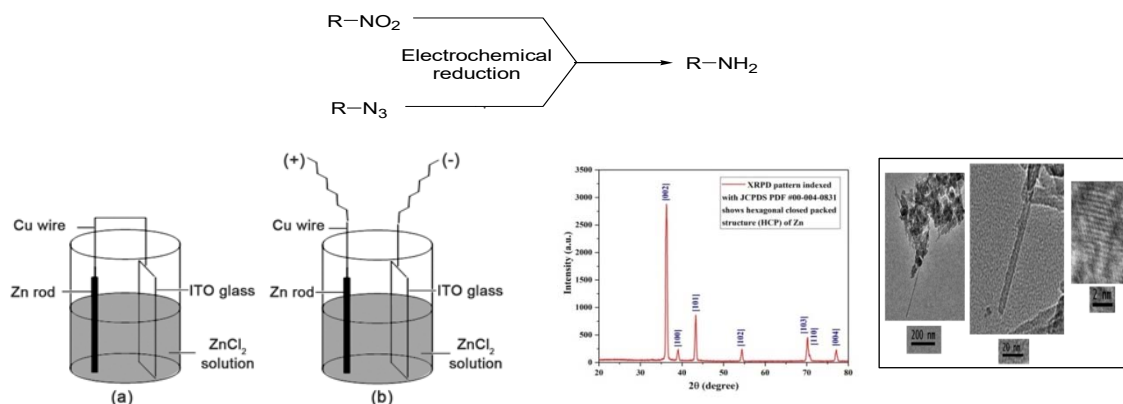
Papers

- 1067 Zirconia-chitosan beads as highly efficient adsorbent for defluoridation of water** Zirconia modified chitosan beads (Zr-CTS) have been synthesized as adsorbent for fluoride ions from water bodies. The material shows excellent defluoridation capacity of 52.63 mg g⁻¹ with regeneration and reusability.



Swati Tandekar, D Saravanan & Ravin Jugade*

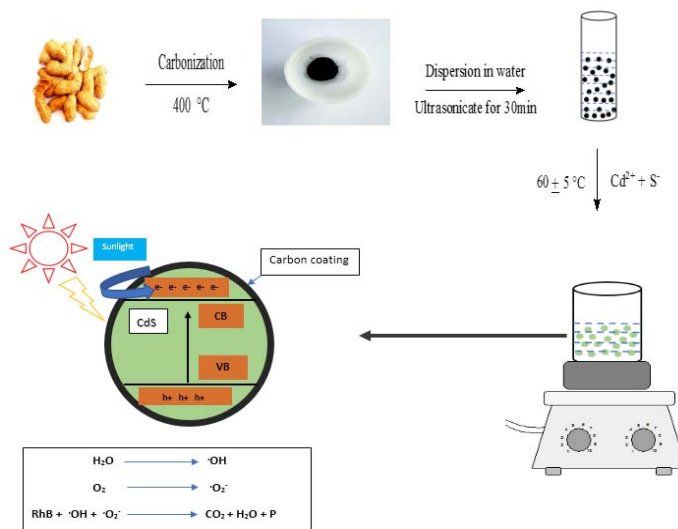
- 1076 Reactivity of electrochemically synthesised zinc nanofiber in facile reduction of nitro and azide compounds** A galvanic cell unit is designed, where ZnCl₂ is used as stoichiometric reagent and causes electrochemical deposition of wire shaped nano zinc in cathode. During the electrochemical process both aliphatic and aromatic nitro and azide compounds undergo facile reduction to the corresponding amines.



Siba Prasad Mandal, Bibhas Mondal, Rajat Saha, Mousumi Kundu & Ujjal Kanti Roy*

1084 Cadmium sulfide decorated with carbon nanoparticles from peanut shells: An efficient photocatalyst

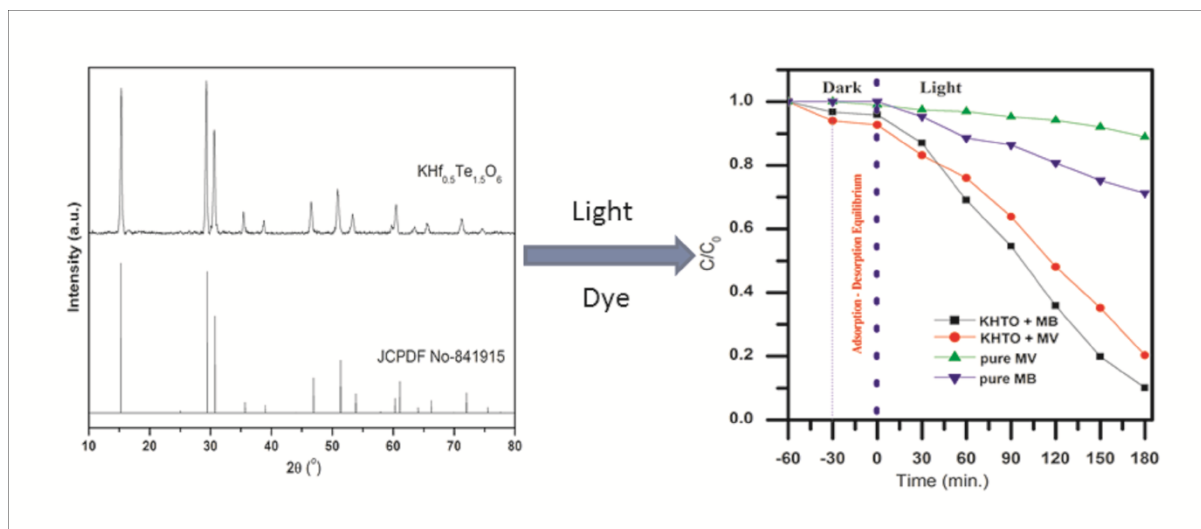
Carbon decorated CdS nanoparticles of average 40 nm size have been synthesized from waste peanut shells by simple pyrolysis method. These nanoparticles with high surface area efficiently catalyzed the photodegradation of Rhodamine B dye solution under sunlight irradiation than pure CdS.



V J Sawant*, D A Lavate & A S Khomane

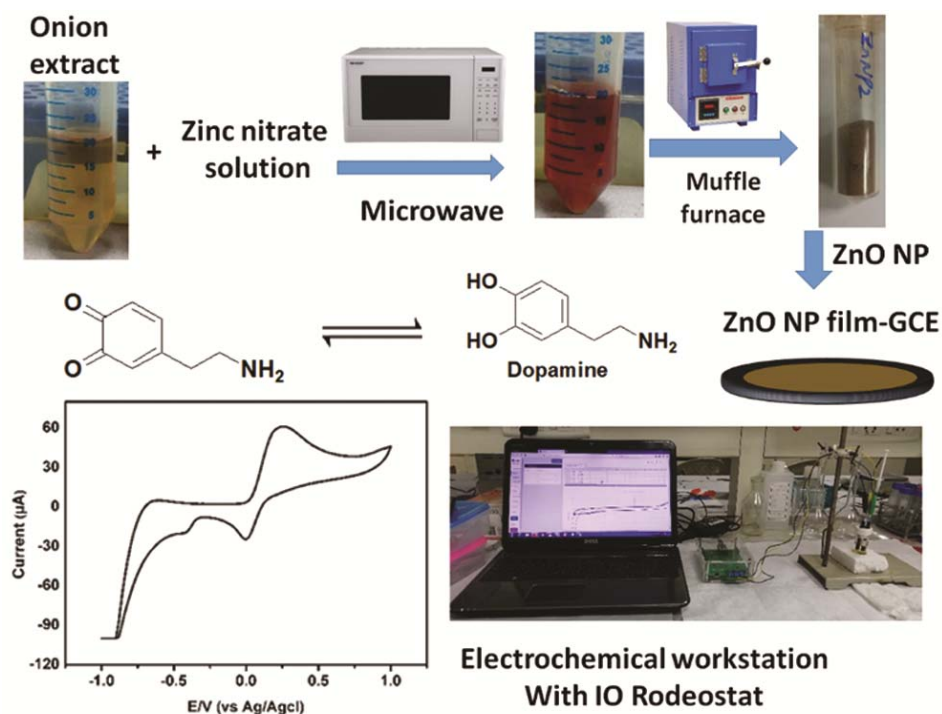
1092 Synthesis, characterization and photocatalytic dye degradation studies of novel defect pyrochlore, $\text{KHF}_{0.5}\text{Te}_{1.5}\text{O}_6$

A new defect pyrochlore oxide of composition $\text{KHF}_{0.5}\text{Te}_{1.5}\text{O}_6$ has been synthesized, characterized and applied as a photocatalyst for wastewater treatment.



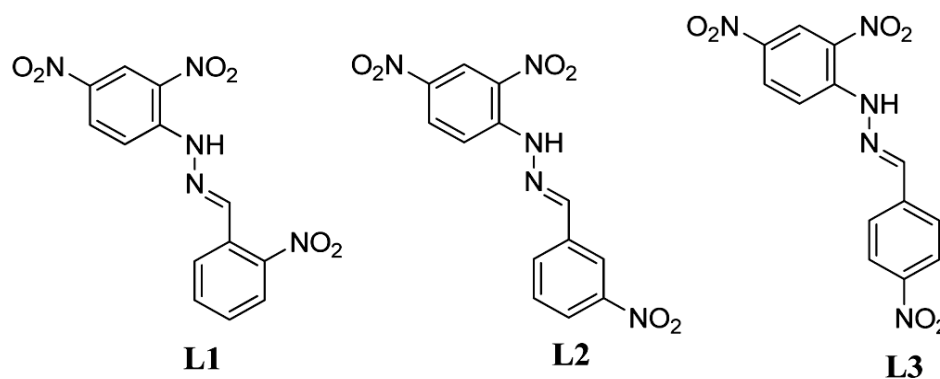
M Sudheera, G Ravinder, G Ravi, P Venkataswamy, K Vaishnavi, N Chittibabu & M Vithal*

- 1100** **Onion based zinc oxide nanoparticles ability as electrochemical sensor** This work describes the preparation of zinc oxide nanoparticles of average size 6.4 nm from onion extract through a combination of microwave irradiation and muffle furnace in less than 2 h. The developed ZnO NP film displays good sensing capability of dopamine and has an oxidation potential of + 0.3 V.



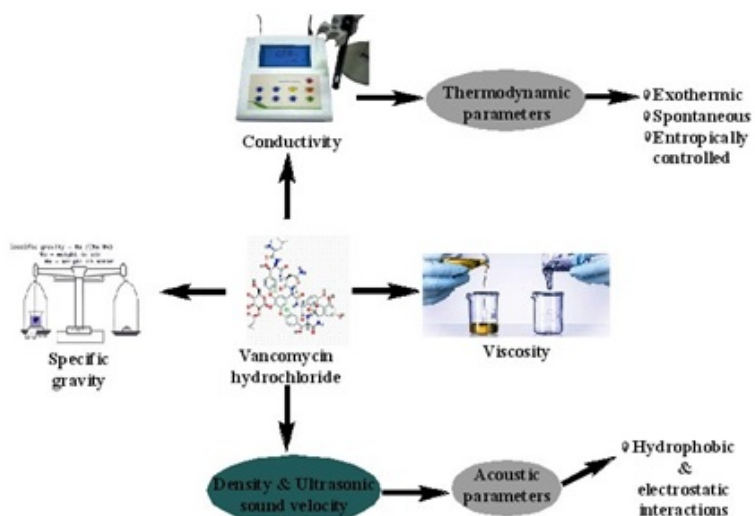
Lokesh Kumar S, Indirajith P & Kishore K R Tetala*

- 1108** **Ultrasonic velocity and allied acoustical parameters of 2, 4-dinitrophenyl hydrazine based Schiff base in DMSO** Novel 2, 4-dinitrophenyl hydrazine based Schiff bases (L1-L3) has been successfully synthesized and characterized. The ultrasonic velocity and density has been measured for the synthesized Schiff bases with DMSO solvent at 300 K.



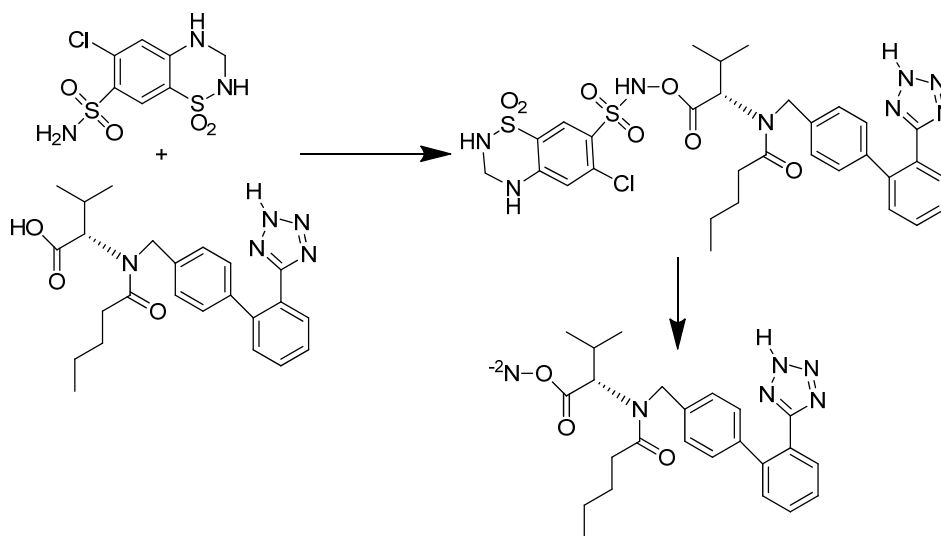
R Behura, Sunita Behera, B B Palai, S Mishra, M Mishra, S Behera, G Nath & B R Jali*

- 1113 **Study of the physico-chemical properties of vancomycin hydrochloride for determining its potential applications in formulation development** The physico-chemical properties of vancomycin hydrochloride are studied as important parameters required in the pre-formulation analysis of a drug.



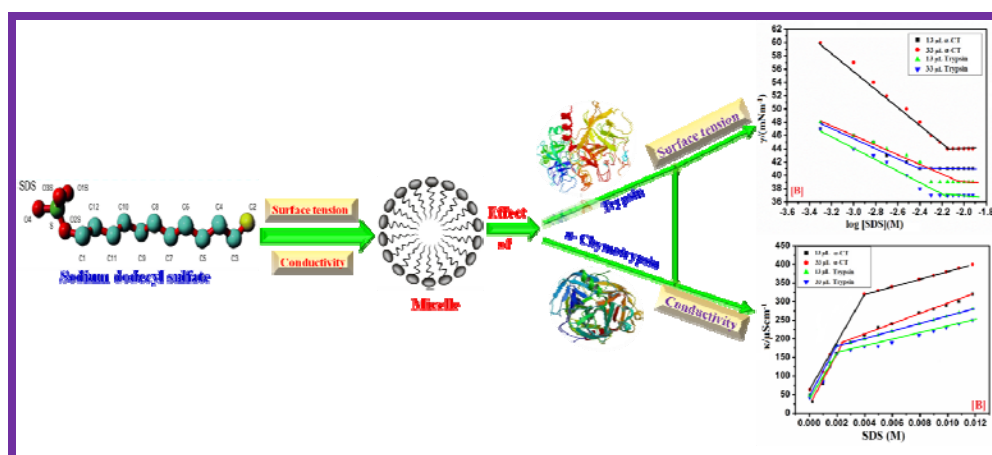
Harjas Saini, Vikrant Abbot, Gopal Singh Bisht & Poonam Sharma*

- 1120 ***In vitro* incompatibility study of Valsartan and Hydrochlorothiazide by spectroscopic and RP-HPLC Method** The present investigation is based on an *in vitro* incompatibility study between valsartan and hydrochlorothiazide by spectroscopic and reverse-phase high-pressure liquid chromatography (RP-HPLC) methods. The method has been developed and validated by ultraviolet spectroscopic method using methanol and water (1:4) as the solvent.



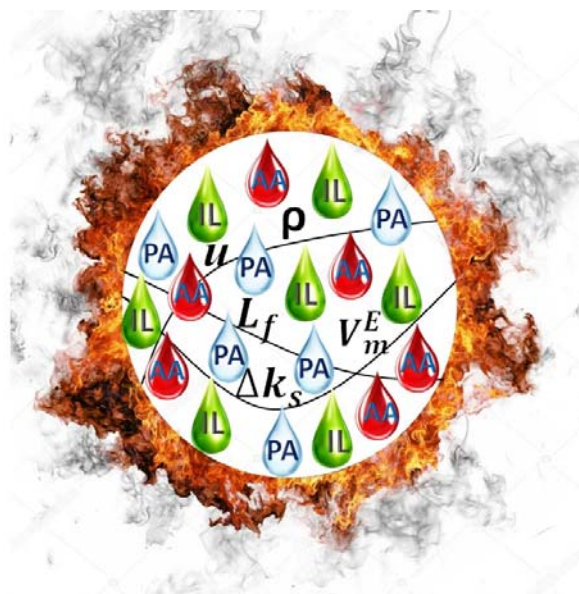
M Manoj Kumar, D Himaja & Sandip Sen*

- 1128 **Interfacial and thermodynamic approach of surfactants with α -chymotrypsin and trypsin: A comparative study** The interaction between cetyltrimethyl ammonium bromide (CTAB), sodium dodecyl sulphate (SDS) with α -chymotrypsin (α -CT) and trypsin by conductivity and surface tension measurements was studied. It is interesting to note that increasing the volume of α -CT / trypsin, CMC values of CTAB/SDS systems got increased.



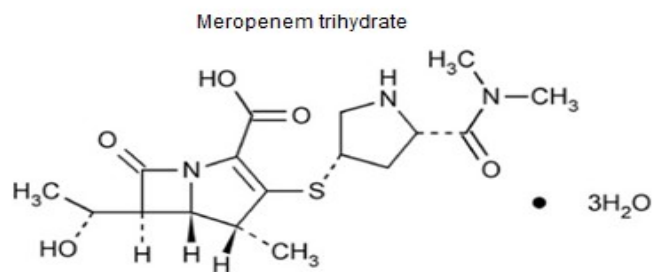
Ramesh Kumar Banjare, Manoj Kumar Banjare*, Kallol K Ghosh*, Prashant Mundeja & Sandhyarani Panda*

- 1136 **Thermophysical and thermodynamic properties of binary liquid systems of [BMIM][MeSO₄] ionic liquid with carboxylic acids** Accurate measurements of physicochemical properties are the solid basis for this study. Very useful thermodynamic parameters have been derived from the physicochemical properties. The derived thermodynamic data, especially the excess values indicate that there were significant interactions between molecules in the binary systems.



Kandsamy G Moodley, Vasanthakumar Arumugam, Oriyomi P Ogundele, Huanjun Xu, Gan G Redhi*, Yanan Gao*

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- 1148 A novel validated eco-friendly RP-UHPLC method for assay and related substances in Meropenem** A simple, rapid, sensitive, specific, eco-friendly and stability-indicating linear gradient liquid chromatographic method (RP-UHPLC) for simultaneous estimation of assay and its related compounds in Meropenem API samples is developed and validated.



K Tirumala Rao, L Vaikunta Rao* & V V Krishna Mohan Kandepi

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- 1159 Guide to Authors**
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Authors for correspondence are indicated by (*)
