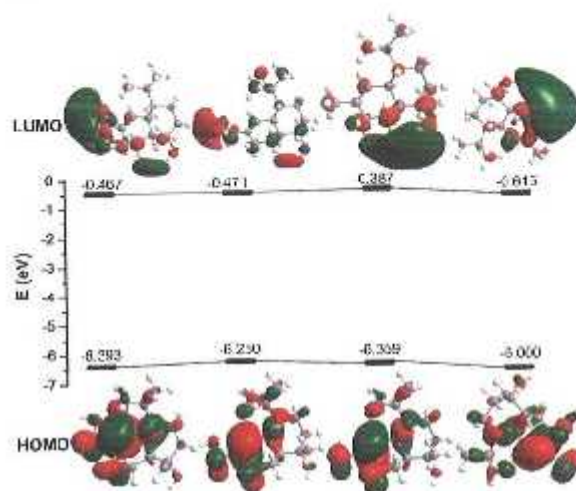


CONTENTS

- 1017 **Chiroptical spectroscopic properties of natural T-murolols: A DFT and TD-DFT study**

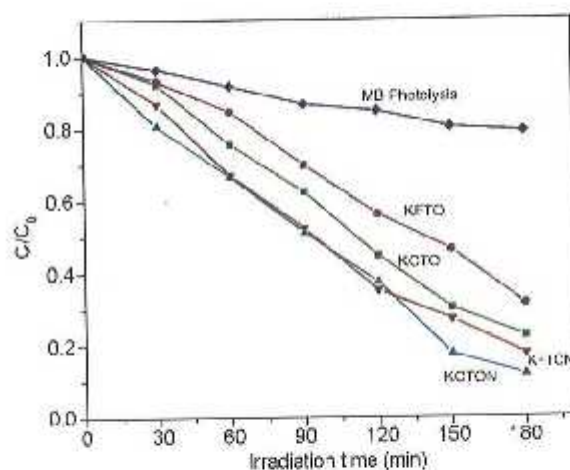
Molecular structure analysis suggests that the optical rotation values are regulated by hydroxyl substitution on the molecular skeleton.



Gao-Zhang Gou*, Zhou Bo, Ling Shi, Shi-Juan Xu, He-Ping Yan, Wei Liu* & Chao-Yong Mang

- 1026 **Preparation and characterization of nitrogen doped $K_2M_2Ti_6O_{16}$ ($M = Cr$ and Fe) with enhanced photocatalytic activity**

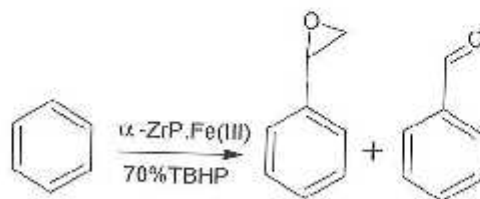
Nitrogen doped Hollandite type $K_2M_2Ti_6O_{16}$ ($M = Cr, Fe$) oxides show higher photocatalytic activity for degradation of methylene blue than their parent analogues. The activity is due to only photodegradation and not due to the photosensitization of the dye.



S Ramakrishna, N Mahender, J R Reddy, Sreeni Kurra, E Nagabhushan & M Vithal*

- 1032 Solvent-free liquid phase oxidation of styrene over iron zirconium phosphate using *tert*-butylhydroperoxide as an oxidant

α -ZrP₂Fe(III)/TBHP system gives maximum conversion (28.81%) for oxidation of styrene in 5 hours. The catalyst can be reused for three cycles.

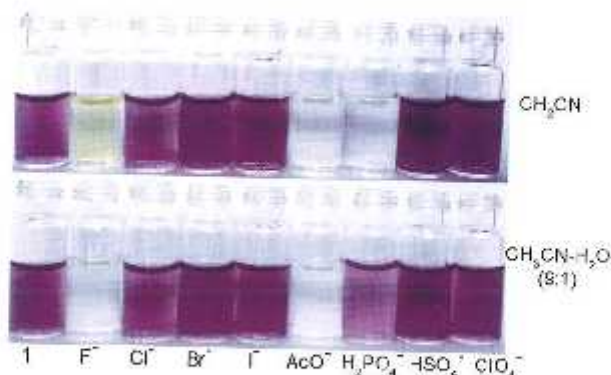


S Khare*, R Chokhale, P Shrivastava & J S Kirar

Notes

- 1039 Anion recognition properties of receptor based on 2-linked trisindolymethene

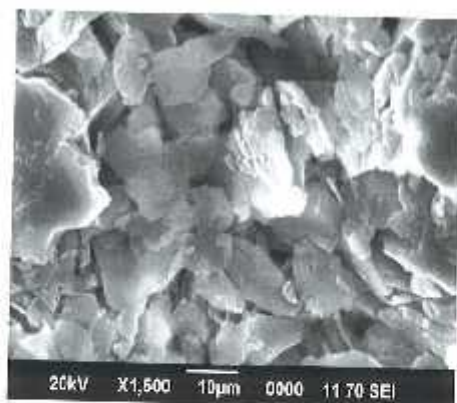
Receptor based on 2-linked trisindolymethene can selectively recognize F^- , AcO^- and $H_2PO_4^-$ in CH_3CN , which can be detected by visible color change. It can also binding with F^- and AcO^- in water-containing solutions shown by visible color change from violet to colorless.



Wei Wei*, Shi Jun Shao & Yong Guo

- 1044 Synthesis, characterization and catalytic activity of titanium dodecylamino phosphate for synthesis of tetrahydrobenzo[a]xanthen-11-ones

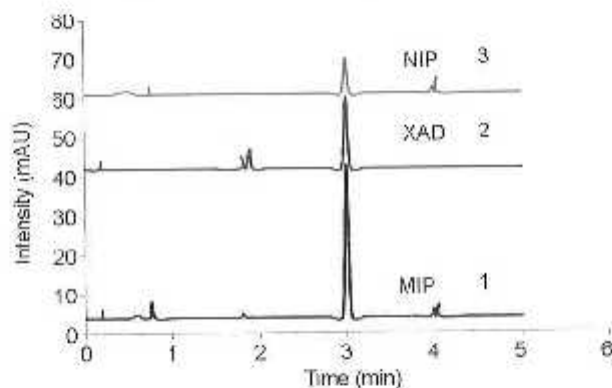
Titanium dodecylamino phosphate catalyst has been synthesized and characterized by various techniques. Titanium dodecylamino phosphate efficiently catalyses synthesis of tetrahydrobenzo[a]xanthen-11-ones at room temperature, forming the products in high yields. An equi. molar mixture of methanol and water is found to be a suitable solvent.



A Rajini & N Venkatathri*

- 1051 **Molecularly imprinted polymer for detection of endocrine disrupting chemical epinephrine in drinking water and biological buffers**

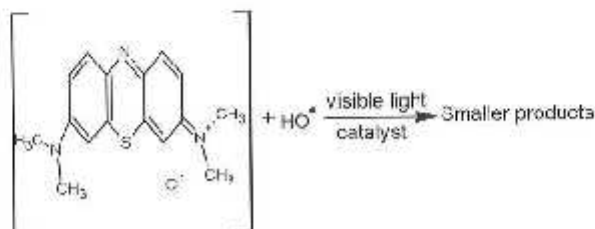
A polymer for selective extraction of epinephrine has been prepared using molecular imprinting technique with two functional monomers, viz., vinylbenzyl chloride and divinylbenzene. The imprinted polymer shows selective extraction of epinephrine from water with a capacity of 9.82 mg g^{-1} , which is reduced to 9.45 mg g^{-1} in biological buffer (pH 7.0). The polymer shows better selectivity for epinephrine (93%) in water in the presence of bisphenol-A and nicotine as compared to the commercial polymer, XAD.



Darshana G Gour & Reddithota J Krupadam*

- 1057 **Copper pyrovanadate as an effective photo-Fenton-like catalyst for degradation of methylene blue**

Photo-Fenton-like degradation of methylene blue has been carried out using copper pyrovanadate and hydrogen peroxide as a novel catalytic system. The catalyst mineralizes the dye with photodegradation efficiency of 69.07% in visible light.



Sangeeta Kalal, Narendra Pal Singh Chauhan,
Arpita Pandey, Rakshit Ameta & Pinki Bala Poojabi*

Authors for correspondence are indicated by (*)