

Indian Journal of Chemistry
Sect. A: Inorganic, Bio-inorganic, Physical, Theoretical & Analytical

www.niscair.res.in; http://nopr.niscair.res.in
 CODEN: ICACEC; ISSN: 0376-4710 (Print), 0975-0975 (Online)

VOLUME 54A

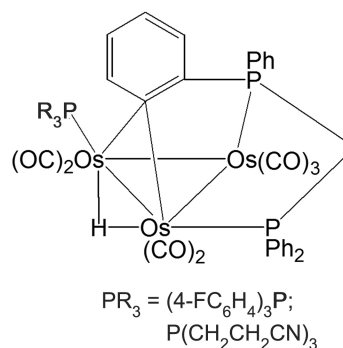
NUMBER 5

MAY 2015

CONTENTS

- 581** Synthesis, structure and reactivity of triosmium clusters derived from the reactions of $[\text{Os}_3(\text{CO})_{10}(\mu\text{-dppm})]$ and $[(\mu\text{-H})\text{Os}_3(\text{CO})_8\{\mu_3\text{-Ph}_2\text{PCH}_2\text{P(Ph)C}_6\text{H}_4\}]$ with tris(4-fluorophenyl)phosphine and tris(cyanoethyl)phosphine

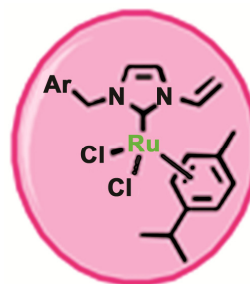
The new clusters, $[\text{Os}_3(\text{CO})_9(\mu\text{-dppm})(\text{PR}_3)]$ ($\text{R} = (4\text{-FC}_6\text{H}_4)$; $(\text{CH}_2\text{CH}_2\text{CN})_3$), upon thermolysis in refluxing toluene affords the electron-deficient compounds $[(\mu\text{-H})\text{Os}_3(\text{CO})_7\{\mu_3\text{-Ph}_2\text{PCH}_2\text{PPh(C}_6\text{H}_4)\} \{\text{PR}_3\}]$ ($\text{R} = (4\text{-FC}_6\text{H}_4)$; $(\text{CH}_2\text{CH}_2\text{CN})_3$).



Abdur R Miah, Subas Rajbangshi, Kamal Hossain,
 Tasneem A Siddiquee & Shariff E Kabir*

- 588** Synthesis, characterization and applications of vinyl functionalized N-heterocyclic carbene supported ruthenium(II) derivatives

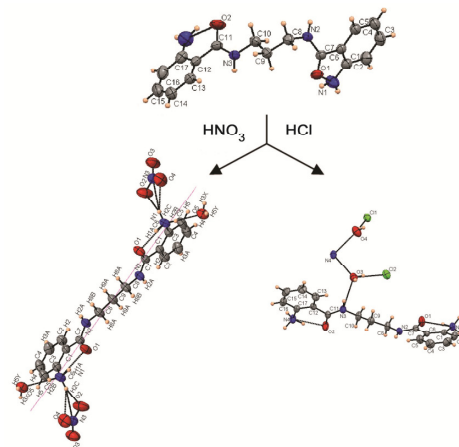
New pre-NHC precursors featuring a short π donor functional group attached with carbene and new vinyl functionalized NHC supported ruthenium derivatives have been synthesized from the corresponding silver carbene precursors. Spectral studies of the NHC metal derivatives show the presence of vinyl π electron delocalization with five-membered NHC ring, and the absence of π coordination towards the ruthenium centre.



Paladugu Suresh, Venkatesan Munisamy &
 Ganesan Prabusankar*

- 596** Supramolecular interactions between a diamine-diamide ligand and anions, trigonal planar NO_3^- and spherical Cl^- : Multiple hydrogen bond cooperativity through water molecules

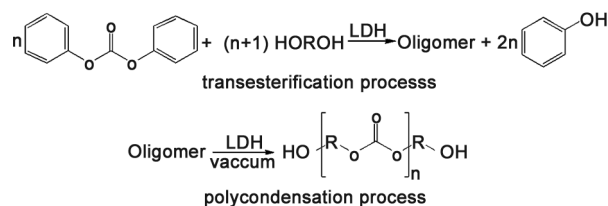
The diamine-diamide ligand, N,N'-propane-1,3-diyl-bis-(2-aminobenzamide), forms anion complexes of the type, $\text{PBABH}_2^{2+}(\text{NO}_3)_2(\text{H}_2\text{O})_2$ and $\text{PBABH}_2^{2+}(\text{Cl})_2(\text{H}_2\text{O})_2$ with primary and secondary H-bonds.



Jyothi Sunkari, Shashank Kundha,
Raghava Rao Gundapaneni, Anjali Reddy,
Someshwar Pola, Sreedhar Kodumuru &
Jagannatha Swamy Sreedasyam*

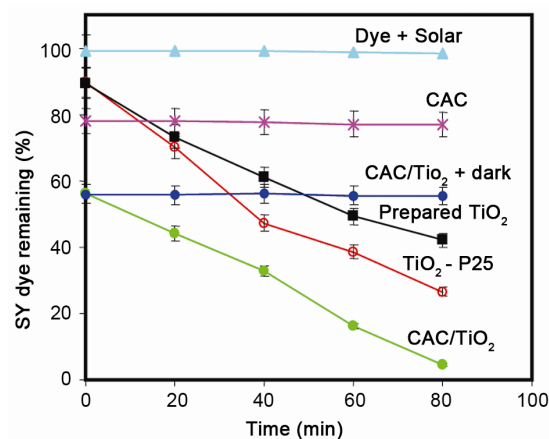
- 607** Layered double hydroxides based on different cations as catalysts for synthesis of poly(1, 5-pentadiol) carbonate diols

Layered double hydroxides based on different metal cations have been prepared by co-precipitation method and used as catalysts for transesterification between diphenyl carbonate and 1, 5-pentadiol to poly(1,5-pentadiol) carbonate diols. Zn-Al- CO_3 LDH and Mg-Al- CO_3 LDH are found to be the most effective catalysts.



Liping Wang*, Fan Wang & Linxiao Xu

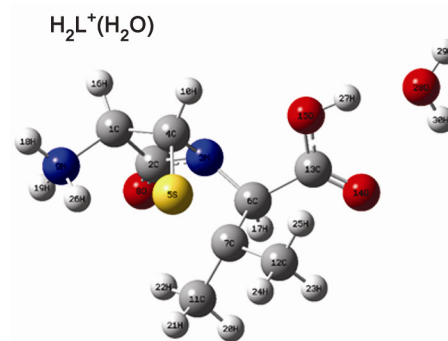
- 613** Solar light assisted photocatalytic mineralization of an azo dye, sunset yellow by using CAC/ TiO_2 composite catalyst



D Rajamanickam & M Shanthi*

619 *Ab initio* and DFT studies on ionization of octopamine and 6-aminopenicillanic acid in aqueous solution

Calculated structures of octopamine and 6-APA in water at 298.15 K are investigated using the Tomasi's method at the B3LYP/6-31+G(d) level of theory. Comparison of the calculated results with experimental values in terms of pK_a values shows reasonable agreement between the two.

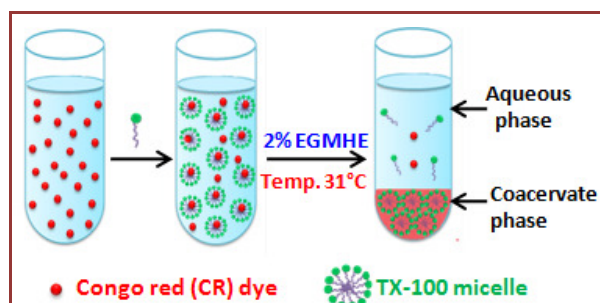


Farhoush Kiani, Mehran Abbaszadeh,
Mohammad Pousti & Fardad Koohyar*

Notes

627 An efficient cloud point extraction method for the separation of congo red using Triton X-100 in the presence additives

An efficient, feasible and green method for removal of dyes has been developed based on cloud point extraction. A small concentration of long chain glycol ether (ethylene glycol monohexyl ether) improves the efficiency of Triton X-100 for complete removal of congo red from aqueous media over a wide range of temperature.



Nilesh Dharaiya*, Arpan Parmar & Pratap Bahadur



Online Submission for IJCA Articles

From 1 January 2015 onwards, articles submitted for consideration of publication in the Indian J Chem, Sec A, should be uploaded through our Online Submission portal, <http://op.niscair.res.in>.

Authors are requested to register at <http://op.niscair.res.in>. The articles (in MS Word) appended with the certificate of originality, illustrations (jpeg/tiff) and supplementary data, if any, may be uploaded through the User Home page. Further information is available at http://www.niscair.res.in/jinfo/author_guidelines_online_submission.pdf.

It may be noted that from 1 January 2015 onwards, articles submitted by email or postal services shall not be processed.

For technical support and assistance for online submission, Shri Sanjay Burde may be contacted (sanjayburde@niscair.res.in); Tel.: 91-11-25846301.