

Indian Journal of Chemistry

Sect. A: Inorganic, Bio-inorganic, Physical, Theoretical & Analytical

VOL. 57A

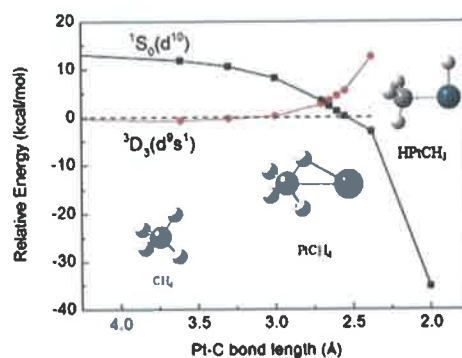
NUMBER 12

December 2018

CONTENTS

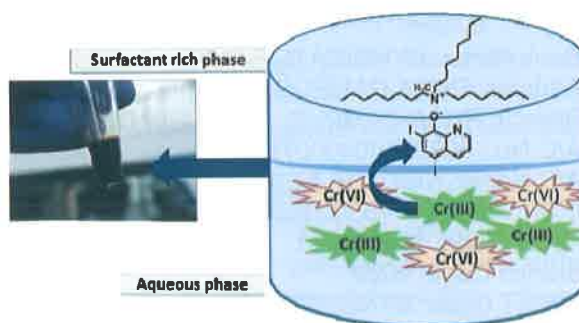
Papers

- 1443 **Catalytic oxidation mechanism of methane via transition metals Pt, Pd and Ag** Density functional theory calculations reveal similar pathways of C-H activation in methane oxidation via Pd and Pt, while Ag follows a different pathway. The catalytic performance of the three transition metals follows the order Pt>Pd>Ag.



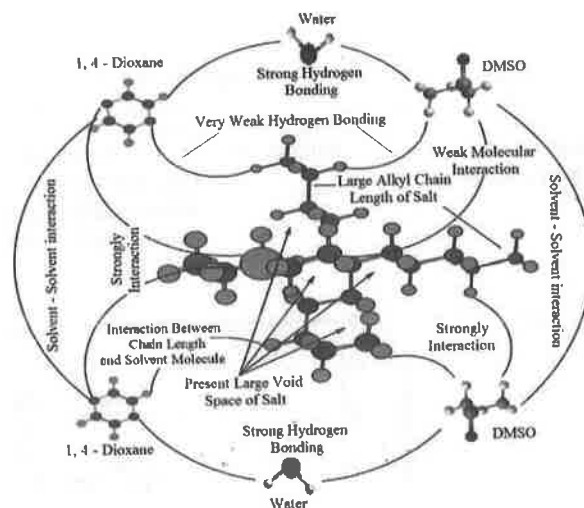
Jun Zhang*, Tingting Hu, Li Wang & Chuan Dong

- 1448 **Cloud point extraction of Cr(III) and Cr(VI) ions using novel room temperature ionic liquid N-methyl-N,N-trioctyl-1-ammonium-5,7-diiodoquinoline-8-olate followed by FAAS quantification** Cloud point extraction in the presence of novel room temperature ionic liquid MTAQO shows synergistic enhancement in the extraction of Cr(III) and Cr(VI) ions, with a recovery of 97.8% and 99.4% of Cr(III) and Cr(VI) respectively.



Aswathi M, Suryamol M S & V M Biju*

- 1454 **Influence of tetra alkyl ammonium chain length cation on molecular interactions of dioxane-DMSO-H₂O mixtures using ultrasonic technique at various temperatures**
- Thermophysical properties of density, viscosity and ultrasonic velocity along with calculated thermo-acoustical parameters of adiabatic compressibility, intermolecular free length, free volume, acoustic impedance and relaxation time indicate the presence of hydrogen bonding between the components of 1,4-dioxane+DMSO+water. The structural arrangements in the systems are influenced by the shape of the molecules as well as by the mutual interactions of tetraalkylammonium chain length.



Indu Saxena* & Vijay Kumar

1464 Annual Index

1471 Guide to Authors

Authors for correspondence are indicated by (*)

Now Subscription Payment Made Easy

Indian Journal of Chemistry, Sec A Subscribers
You can now pay through ECS /NEFT /RTGS

Following are the details:

Bank Name: SYNDICATE BANK
 Address: PUSA CAMPUS, IARI, NEW DELHI 110 012
 Branch: PUSA CAMPUS, IARI, NEW DELHI
 A/C No.: 90292160000079
 A/C Name: NISCAIR, NEW DELHI 110 012
 IFSC Code: SYNB0009029
 MICR Code: 110025041
 Branch Code: 9029
 SWIFT Code: SYNBINBB019

Please send UTR no. with full postal address by e-mail
after payment through ECS/NEFT/RTGS to:
sales@niscair.res.in