## 2004

1. Methyltrioxorhenium catalyzed oxidation of 1,2-diols to 1,2-diketones using hydrogen peroxide as oxidant.

Suman L. Jain, Vishal B. Sharma and Bir Sain Tetrahedron Letters 45(6), 1233-1235 Feb 2004

Cumene cracking functionalities on sulfided Co(Ni)Mo/TiO<sub>2</sub>-SiO<sub>2</sub> catalysts,
 A. Mohan S. Rana, S. K. Maity, J. Ancheyta, G. Murali Dhar and T. S. R. Prasada Rao Applied Catalysis A: General, 258(2), 215-225, Feb 2004

3. Surfactant assisted organization of an exfoliated vanadyl ortho phosphate to a mesostructured lamellar vanadium phosphate phase,

Soumen Dasgupta, Monika Agarwal and Arunabha Datta Microporous and Mesoporous Materials, 67(2&3), 229-234, Feb 2004

- 4. Phase transition, conformational disorder and chain packing in crystalline long chain symmetrical alkyl ethers and symmetrical alkenes
  - S Tyagi, H S Bisht, A K Chatterjee
  - J. Physical Chemistry B 108(9), 3010-3016, March 2004
- 5. Kinetic studies of low severity visbreaking.

K L Kataria, R P Kulkarni, A B Pandit, J B Joshi, M M Kumar Ind. & Engg Chem Res. 43(6), 1373-1387, March 2004

- 6. Metallophthalocyanines as potent catalyst for cyclopropanation of olefins with ethydiazoacetate Vishal B Sharma, Suman L Jain and Bir Sain Catalysis Letters 94(1-2), 57-59, April 2004
- 7. Copper-catalyzed cyclopropanation of 1,2,3,4-tetrahydropyridin-2-ones with diazoacetates: A facile and stereoselective synthesis of 3-oxo-2-azabicyclo [4.1.0] heptanes, Suman L. Jain and Bir Sain

Journal of Molecular Catalysis A: Chemical212(1-2), 91-98, April 2004

8. Cobalt (II) Schiff base catalyzed aerobic oxidation of secondary alcohols to ketones, Vishal B. Sharma, Suman L. Jain and Bir Sain Journal of Molecular Catalysis A: Chemical 212(1-2), 55-59, April 2004

9. Study of phase transition in hard microcrystalline waxes & wax blends by differential scanning calorimetry

Sanat Kumar, K M Agarwal, H U Khan, A Sikora Petroleum Science & Tech. 22(3&4), 337-345, April 2004

10. Temperature programmed reduction and acidic properties of molybdenum supported on MgO-Al<sub>2</sub>O<sub>3</sub> and their correlation with catalytic activity

Manoj Kumar, F Aberugba, J K Gupta, K S Rawat, L D Sharma & G Murlidhar J Mol. Catalysis A 113(2), 217-223 May 2004

11. Bromamine-T/RuCl₃ as an efficient system for the oxidation of tertiary amines to N-oxides Vishal B Sharma, Suman L Jain & Bir Sain Tetrahedron Letter 45(22), 4281-4283, May 2004

12. A novel imido-transfer reaction of aldehyde with Ph<sub>3</sub>P=NT<sub>3</sub> using RuCl<sub>2</sub>(PPh<sub>3</sub>)<sub>3</sub> as catalyst. Suman L Jain, Vishal B Sharma & Bir Sain Tetrahedron Letter 45(22), 4341-4343, May 2004

13. Cloning and nucleotide sequence of a novel cry gene from Bacillus thuringiensis Stobdan, T; Kaur, S; Singh, A Biotechnology Letters 26(14), 1153-1156, July 2004

14. Improvement in the GUR (Jaggery) making plant for Rural Areas H K Madan, U K Jaiswal, Satish Kumar and S K Khanna J Rural Tech 1, (4), 194-196, July 2004

15. MoCo(Ni)/ZrO<sub>2</sub>–SiO<sub>2</sub> hydrotreating catalysts: physico-chemical characterization and activities studies

Mohan S. Rana, S. K. Maity, J. Ancheyta, G. Murali Dhar and T. S. R. Prasada Rao Applied Catalysis A: General, 268(1-2), 89-97, August 2004

16. Copper (II) Schiff base catalysed aerobic oxidative coupling of 2-naphthols: an efficient and simple synthesis of binaphthols

Vishal B. Sharma, Suman L. Jain and Bir Sain Journal of Molecular Catalysis A: Chemical 219(1), 61-64, Sept 2004

17. Identification of acyclic isopreonoid hydrocarbons in wax derived from tank bottom sludge. Sanat Kumar, K M Agarwal & Peter Fischer Energy & Fuel Journal 18(5), 1588-1594, Sept 2004

- 18. Characterization of Al2O3–ZrO2 Mixed Oxide Supported Mo Hydrotreating Catalyst Folorunsho Aberuagba; Manoj Kumar; Gudimella Muralidhar; Lakshmi Datt Sharma Petroelum Science and Tech 22(9&10), 1287-1298, Sept 2004
- 19. Metal ion incorporated VPO phases as novel catalysts Arunabha Datta, Monika Agarwal,, Soumen Das Gupta Catalysts Survey from Asia 8(3), 171-178, Sept 2004
- 20. Water vapour induced transformation of the 2 dimensional vanadyl hydrogen phosphate hemihydrate VOHPO<sub>4</sub>0.5H<sub>2</sub>O to the 1 dimensional tetrahydrate VOHPO<sub>4</sub>.4H<sub>2</sub>O phase Soumen Das Gupta, Monika Agarwal, Arunabha Datta J. Material Research 19(11) Nov 3131-3134, 2004
- 21. Studies on thermal cracking behavior of residual feedstock in a fed batch section Jasvinder Singh, M M Kumar, Alok K Saxena & Surender Kumar Chemical Engineering Science 59(21), 4505-4515, Nov 2004
- 22. An efficient transition metal-free azridination of alkenes with Chloramine-T using aqueous  $H_2O_2/HBr$

Suman L Jain, Vishal B Sharma & Bir Sain Tetrahedron Letter 45(47), 8371-8372, Nov, 2004

23. An efficient method for the olefination of aldehydes with ethyl diazoacetate using iron (II) phthalocyanine as catalyst

Vishal B Sharma, Suman L Jain and Bir Sain

Catalysis Letters 98,(2-3), 141-143, November 2004

24. Cracking and aromatization properties of some metal modified ZSM-5 catalysts for light alkane conversions

N. Viswanadham, G. Muralidhar and T.S.R. Prasada Rao Journal of Molecular Catalysis A: Chemical 223(1-2), 269-274, Dec 2004

25. Mesolamellar vanadium phosphate phases obtained by intercalation of a long chain alkylamine into different catalytically important VPO host lattices.

Soumen Dasgupta, Monika Agarwal and Arunabha Datta

Journal of Molecular Catalysis A: Chemical 223(1-20, 167-176, Dec 2004

26. Structural characterization of coke on spent hydroprocessing catalysts used for processing of vacuum gas oil

S K Sahoo, S S Ray, I D Singh Applied Catalysis 278(1), 83-91, Dec 2004