

## List of publications

### (A) Articles in journals/contributions to books

1. **Bandyopadhyay, R.**, Direct synthesis of 3A molecular sieves from different sources of silica and alumina, *Communicated to Materials Letters*.
2. Sunita Barot, Maaz Nawab, **Bandyopadhyay, R.**, Biofuel synthesis by Jatropha oil cracking using solid acid catalyst, *International Journal of Research and Scientific Innovation*, 1 (VII) (2014) 302.
3. **Bandyopadhyay, R.**, Bandyopadhyay, M., Kubota, Y. and Sugi Y., Synthesis of AlPO<sub>4</sub> molecular sieves with AFI and AEL structures by dry-gel conversion method and catalytic application of their SAPO counterparts on isopropylation of biphenyl. *Journal of Porous Materials* 9 (2002) 83-95.
4. **Bandyopadhyay, R.**, Kubota, Y. and Sugi Y., Synthesis of alumino, boro, and gallosilicate zeolites by steam-assisted conversion method and their characterization. In: Impact of zeolites and other porous materials on the new technologies at the beginning of the new millennium, Eds. Aiello, R., Giordano, G. and Testa, F. (Elsevier Science B.V.), *Studies in Surface Science and Catalysis* 142 (2002) 15-22.
5. Bandyopadhyay, M., **Bandyopadhyay, R.**, Tawada, S., Kubota, Y. and Sugi Y., Catalytic performance of silicoaluminophosphate (SAPO) molecular sieves in the isopropylation of biphenyl. *Applied Catalysis* 225 (2002) 51-62.
6. **Bandyopadhyay, R.**, Ahedi, R. K., Kubota, Y., Ogawa, M., Goto, Y., Fukushima, Y. and Sugi, Y., Synthesis of high-silica [Al]-SSZ-31 by steam-assisted conversion method and its catalytic performance in the isopropylation of biphenyl. *Journal of Materials Chemistry* 11 (2001) 1869-1874.
7. **Bandyopadhyay, R.**, Kubota, Y. Nakata, S. and Sugi Y., Utilization of dry-gel conversion method for the synthesis of gallosilicate zeolites beta, ZSM-5 and ZSM-12. In: Zeolites and Mesoporous Materials at the Dawn of the 21<sup>st</sup> Century, Eds. Galarneau, A., Di Renzo, F., Fajula, F. and Viedrine, J. (Elsevier Science B.V.), *Studies in Surface Science and Catalysis* 135 (2001) 331.
8. Bandyopadhyay, M., **Bandyopadhyay, R.**, Kubota, Y. and Sugi Y. Synthesis of aluminophosphate molecular sieves by dry-gel conversion method. *Chemistry Letters* (2000) 1024-1025.
9. **Bandyopadhyay, R.**, Kubota, Y., Ogawa, M., Sugimoto, N., Fukushima, Y. and Sugi Y., Synthesis of [Al]-SSZ-31 by dry-gel conversion (DGC) method. *Chemistry Letters* (2000) 300-301.
10. **Bandyopadhyay, R.**, Kubota, Y., Sugimoto, N., Fukushima, Y. and Sugi Y., Synthesis of borosilicate zeolites by the dry gel conversion method and their characterization. *Microporous and Mesoporous Materials* 32 (1999) 81-91.
11. **Bandyopadhyay, R.**, Kubota, Y. and Sugi Y., Synthesis of borosilicate zeolites by dry gel conversion (DGC) method. *Chemistry Letters* (1998) 813-814.

12. **Bandyopadhyay, R.**, Kubota, Y., Tawada, S. and Sugi Y., Direct hydrothermal synthesis of B-SSZ-31 from silica and sodium borate using 1,3,3,6,6-pentamethyl-6-azoniabicyclo[3.2.1]octane hydroxide as structure-directing agent. *Catalysis Letters* 50 (1998) 153-158.
13. **Bandyopadhyay, R.**, Sugi, Y., Kubota, Y. and Rao, B.S., Transalkylation reaction – An alternative route to produce industrially important intermediates such as cymene. *Catalysis Today* 44 (1998) 245-252.
14. Singh, P.S., Shaikh, R.A., **Bandyopadhyay, R.** and Rao, B.S. Alkylation of meta-diisopropylbenzene with isopropanol as a test reaction for large pore zeolites. In: Recent Advances in Basic and Applied Aspects of Industrial Catalysis, Eds. Prasada Rao, T.S.R. and Murali Dhar, G. (Elsevier Science B.V.), *Studies in Surface Science and Catalysis* 113 (1998) 473-478.
15. Shaikh, R.A., Singh, P.S., **Bandyopadhyay, R.**, Kavedia, C.V., Mirajkar, S.P. and Rao, B.S., Aniline methylation over molecular sieves. In: Recent Advances in Basic and Applied Aspects of Industrial Catalysis, Eds. Prasada Rao, T.S.R. and Murali Dhar, G. (Elsevier Science B.V.), *Studies in Surface Science and Catalysis* 113 (1998) 637-642.
16. **Bandyopadhyay, R.**, Singh, P.S. and Rao, B.S., Formation of N-methylaniline by transalkylation of aniline with N,N-dimethylaniline over zeolite Beta. *Applied Catalysis* 155 (1997) 27-39.
17. **Bandyopadhyay, R.**, Singh, P.S. and Rao, B.S., Transalkylation of toluene with diisopropylbenzene over REY zeolite. *Reaction Kinetics and Catalysis Letters* 60 (1997) 171-177.
18. **Bandyopadhyay, R.**, Singh, P.S. and Shaikh, R.A., Transalkylation of cumene with toluene over zeolite Beta. *Applied Catalysis* 135 (1996) 249-259.
19. Singh, P.S., **Bandyopadhyay, R.** and Rao, B.S., Aniline methylation over AEL type molecular sieves. *Applied Catalysis* 136 (1996) 177-189.
20. Singh, P.S., **Bandyopadhyay, R.**, Hegde, S.G. and Rao, B.S., Vapor phase Beckmann rearrangement of cyclohexanone oxime over SAPO-11 molecular sieve. *Applied Catalysis* 136 (1996) 249-263.
21. Singh, P.S., **Bandyopadhyay, R.** and Rao, B.S., Characterization of SAPO-11 synthesized conventionally and in the presence of fluoride ions. *Journal of Chemical Society, Faraday Transaction* 92 (1996) 2017-2026.
22. Singh, P.S., **Bandyopadhyay, R.** and Rao, B.S., Spectroscopic studies of vanadium incorporated SAPO-11. *Journal of Molecular Catalysis* 104 (1995) 103-110.
23. Singh, P.S., Shaikh, R.A., **Bandyopadhyay, R.** and Rao, B.S., Synthesis of CoVPI-5 with bifunctional catalytic activity. *Journal of Chemical Society, Chemical Communication* (1995) 2255-2256.
24. Singh, P.S., **Bandyopadhyay, R.**, Shaikh, R.A. and Rao, B.S., Selective acidic, oxidative and reductive reactions over ALPO-11 and Si or metal substituted ALPO-11. In: Zeolites: A Refined Tool for Designing Catalytic Sites, Eds. Bonneviot, L. and Kaliaguine, S. (Elsevier Science B.V.), *Studies in Surface Science and Catalysis* 97 (1995) 343-350.

25. Shaikh, R.A., **Bandyopadhyay, R.**, Singh, P.S. and Rao, B.S., Aluminium gradient and catalytic properties of ZSM-5 zeolites. In: *Catalysis: Modern Trends*, Eds. Gupta, N.M. and Chakrabarty, D.K. (Narosa Publishing House, New Delhi), (1995) 91-94.
26. Shaikh, R.A., **Bandyopadhyay, R.**, Singh, P.S. and Rao, B.S., Coke induced shape selectivity over silylated ZSM-5. In: *Catalysis: Present and Future*, Eds. Rao, P.K. and Beniwal, R.S. (Wiley Eastern Ltd., New Delhi), (1995)31-36.
27. Joshi, P.N., **Bandyopadhyay, R.**, Awate, S.V., Shiralkar, V.P. and Rao B.S., Influence of physico-chemical parameters on n-hexane dehydrocyclization over Pt/LTL zeolites. *Reaction Kinetics and Catalysis Letters* 53 (1994) 231-236.

**(B) Published contributions to academic conferences**

1. **Bandyopadhyay, R.**, (2012): Proceedings of International Symposium on Zeolites and Microporous Crystals, Hiroshima, Japan, July 28 - August 1.
2. **Bandyopadhyay, R.**, Kubota, Y. Ogawa, M. Sugimoto, N., Fukushima, Y., and Sugi, Y. (2000): Synthesis of SSZ-31 by hydrothermal and dry gel conversion method. Proceedings of the International Symposium on Industrial application of Zeolites at Brugge, Belgium, edited by G.F. Froment and P.A. Jacobs, October 22-25, p53-60.
3. Bandyopadhyay, M., **Bandyopadhyay, R.**, Kubota, Y. Goto, Y., Fukushima, Y., and Sugi, Y. (2000): Synthesis of aluminophosphate molecular sieves by dry gel conversion method. Proceedings of the International Symposium on Zeolites and Microporous Crystals, ZMPC 2000, at Sendai International Center, Sendai, Japan, August 6-9, Extended Abstract p232.
4. **Bandyopadhyay, R.**, Kubota, Y. and Sugi Y. (2000): Synthesis of gallosilicate zeolites by dry gel conversion method. Proceedings of the 16th Canadian Symposium on Catalysis at Banff, Canada, May 23-26, 110.
5. Bandyopadhyay, M., **Bandyopadhyay, R.**, Kubota, Y. and Sugi Y. (2000): Synthesis of aluminophosphate molecular sieves by dry gel conversion method. Proceedings of the 16th Canadian Symposium on Catalysis at Banff, Canada, May 23-26, 113.
6. **Bandyopadhyay, R.**, Kubota, Y., Ogawa, M., Sugimoto, N., Fukushima, Y. and Sugi Y. (1999): Synthesis of SSZ-31 by dry gel conversion method. Proceedings of the 84th Symposium of the Catalysis Society of Japan at Akita, Japan, September 29-October 2, 170.
7. **Bandyopadhyay, R.**, Kubota, Y. and Sugi Y. (1999): Utilization of dry gel conversion technique in the synthesis of borosilicate zeolites. Proceedings of the 1st International FEZA (Federation of European Zeolite Association) Conference Eger, Hungary, September 1-4, R18.
8. **Bandyopadhyay, R.**, Kubota, Y. and Sugi Y. (1998): Synthesis of borosilicate zeolite by dry gel conversion technique and their characterization. Proceedings of the 14th Zeolite Symposium of Japan at Sophia University, Tokyo, Japan, November 12-13, 57-58.
9. **Bandyopadhyay, R.**, Kubota, Y. and Sugi Y. (1998): Borosilicate zeolites – synthesis by dry gel conversion technique and their characterization. Proceedings of the 82nd Symposium of the Catalysis Society of Japan at Matsuyama, Japan, September 16-19, 291.
10. **Bandyopadhyay, R.**, Kubota, Y., Tawada, S. and Sugi Y. (1998): One-step synthesis of B-SSZ-31 and its conversion to Al-SSZ-31. Proceedings of the 74th Spring Meeting of the Chemical Society of Japan at Kyoto, Japan, March 27-30, 240 (in Japanese).

11. **Bandyopadhyay, R.**, Kubota, Y., Sugi, Y. and Rao, B.S. (1997): Formation of cymene by alkylation reaction over cation exchanged Beta zeolites and effect of cation on alkylation activity. Proceedings of the 27th Symposium on Petroleum Refining and Petroleum Chemistry at Okayama, Japan, November 12-13, 264.
12. **Bandyopadhyay, R.**, Kubota, Y., Sugi Y. and Rao, B.S. (1997): Transalkylation reaction – an alternative route to produce industrially important intermediates such as cymene. Proceedings of the 1st Asia-Pacific Congress on Catalysis APCAT '97 at Kyongju, Korea, November 2-5, OB-28.
13. Singh, P.S., Mirajkar, S.P., Joshi, P.N., **Bandyopadhyay, R.**, Rao B.S. and Shiralkar, V.P. (1997): Ammonia sorption isotherms in Si, Co, Mn and Al incorporated AEL type molecular sieves. Proceedings of the International Symposium on Zeolites and Microporous Crystals, ZMPC'97, at Waseda University, Tokyo, Japan, August 24-27, Extended Abstract p140.
14. **Bandyopadhyay, R.** (1995): Simultaneous production of cymenes and cumene through transalkylation reaction over zeolite REY. Proceedings of the National Workshop on Catalysis at Central Salt and Marine Chemicals Research Institute (CSMCRI), Bhavnagar, India, December 20-22, 33-34.

### **(C) Patents:**

1. An improved process for the production of crystalline microporous titanium silicate, TS-1. Shiralkar, V.P., **Bandyopadhyay, R.**, and Patel R.M., Indian Pat. Application 2608/DEL/2006 published 2008-08-01, filed 2006-12-05