



Proceedings of 1st International Conference
on
Integrative Chemistry, Biology and
Translational Medicine(ICBTM-2019)
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25-26 February, 2019

Organised by:

Centre for Global Health,
Hansraj College, University of Delhi, Delhi, India
&
Loyola University Chicago
Stritch School of Medicine, USA



ABOUT THE CONFERENCE

This two-day International meeting is to provide the platform and, abundant opportunities to the researchers in the area of interdisciplinary sciences. This event will provide a forum for an in-depth assessment of the challenges involved in the dynamic and fast-moving field of Chemistry, Biology, Physics, Environment Sciences and Medicine. The main objective of the conference to encourage the cross-disciplinary collaboration by creating an environment where group of scientist and academia from diverse discipline can exchange their ideas related to their field of subject mainly by focusing on the key issues from each respective speciality.

This multi-disciplinary conference is intended to expose students and faculty members to the thrust area of research with emphasis on indigenous problems. The scope of the conference is to sensitize and stimulate the young minds and create awareness among young research scholars and scientists to bring out the best among the various frontiers of physical and biological Sciences. This is an interdisciplinary conference in which scientists from different fields would gather and present their work. The conference is expected to foster future national and international interdisciplinary collaboration and conceive new research direction in the fields. The conference will feature few keynote lectures on Translational medicine, Chemical Sciences and Chemical Biology and invited lectures by renowned scientists in the area of Physical and Biological Sciences. This conference will be able to bring together the undergraduate, postgraduate, doctoral students and faculty members on a common platform to deliberate and discuss recent advances in research. The following main topics will be covered during the conference:

Drug Discovery; Medicinal Chemistry; Nanomedicine; Translation Biology; Infectious Diseases; Smart Materials; Cell Engineering; Cancer Therapeutics; Regenerative Medicine; Molecular Virology; Environment and Health; Synthetic Processes and Catalysis; Biomedical Technology, and Pharmaceutical Engineering.

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Synthesis and catalytic applications of FAU type Mesoporous silicoaluminophosphate-37 (MESO-SAPO-37)

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Mesoporous molecular sieve materials are promising materials for various bulk molecular transformations [1]. However, lack in crystallinity leads to design and synthesis of mesoporous molecular sieve derived from microporous (zeolite or zeolite like) precursors. Conversely, silicoaluminophosphate (SAPO) molecular sieve are analogous to zeolites with an advantage to tune the framework work acidity. Though, have great difficulty on synthesis due to existence of aluminium in both tetrahedral and octahedral environment [2].

In addition, self-assembly of mesoporous materials using neutral surfactant doesn't possess strong inorganic-surfactant electrostatic interaction compared to anionic and cationic surfactants and hence, we believe that it can help to produce long range order mesoporous materials with better thermal stability. The current work focused on synthesis of mesoporous silicoaluminophosphates-37 (MESO-SAPO-37) materials [2-4] using neutral surfactant (hexadecyl amine) by two step procedure. First step involves the formation of microporous building blocks of FAU type SAPO-37 and the second step involves formation of mesoporous phase in the presence of neutral surfactant in deionized water. The role of various parameters such as temperature, duration, template concentration was studied on materials synthesis. The synthesized materials were characterized by various spectroscopic and analytical techniques viz. FT-IR, powder XRD, SEM, N₂ sorption etc. The SEM images show (Figure 1) the presence of flower like morphology.

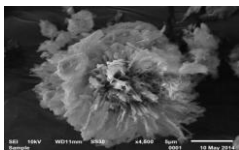


Figure 1. SEM image of MESO-SAPO-37.

The resulting material shows promising activities for trans alkylation of naphthalene by using 1,3-diisopropylbenzene. In conclusion, we first time report successful synthesis of mesoporous silicoaluminophosphate molecular sieve by neutral surfactant which showed promising catalyst.

References:

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Host Institution

Hansraj College is a constituent college of the University of Delhi. Established in 1948, it has acquired for itself a position of excellence in practically all spheres of collegiate life and is a nurturing ground for an individual's holistic development to make effective contribution to the society in a dynamic environment. The college is a foremost institution of India and known for its high standard teaching and research. It is providing undergraduate education in liberal arts, science and commerce. It is one of the colleges selected by the Department of Biotechnology (Govt. of India) under the Star College Scheme for strengthening of education and training in sciences at undergraduate level. The institution is also providing degree courses at postgraduate level. A number of national and international research projects are running in the college and producing good quality of publications including patents. Hansraj College was graded with NAAC Grade A+ (CGPA 3.62) by University Grant Commission.



Stritch School of Medicine, University of Loyola, Chicago had its beginnings in September 1909 when it affiliated with Illinois Medical College (associated with Reliance Medical College) and created the Medical Department of Loyola University. In 1910, Bennett Medical College approached Loyola as it was seeking an affiliation agreement with a university. This merger resulted in the establishment of Bennett Medical College of Loyola University in 1910 and gave Loyola's president and trustees the ability to supervise the curriculum and prohibit doctrine opposed to Christian morality. Its first commencement was in 1910. As its five-year agreement came to an end, Loyola's trustees moved for closer control and purchased the school.



Loyola's medical school was accredited by the Council on Medical Education and Hospitals of the American Medical Association on February 9, 1920 and has been a member of the Association of American Medical Colleges since 1921.

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This is to certify that.....*Dr. Rekha Yadav*.....of *Sri Venkateswara College, DU.*

participated/presented a poster/ oral presentation in the 1st International Conference on Integrative Chemistry, Biology and Translational Medicine organized by the Centre for Global Health, Hansraj College, University of Delhi & Loyola University Chicago Stritch School of Medicine, USA.

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