

## Report on DAE-BRNS 6<sup>th</sup> Interdisciplinary Symposium on Materials Chemistry (ISMC – 2016)

DAE-BRNS 6<sup>th</sup> Interdisciplinary Symposium on Materials Chemistry (ISMC-2016) was held at Multipurpose Hall, Training School Guest House, Anushaktinagar during 6-10 December, 2016. The Symposium was jointly organized by Chemistry Division, BARC and Society for Materials Chemistry and was fully supported by the Board of Research in Nuclear Sciences (BRNS). Dr. V. K. Jain, Convenor ISMC-2016, welcomed the delegates and invitees. Dr. A. K. Tyagi, co-convenor, gave an overview of the Society for Materials Chemistry and BRNS. Dr. B. N. Jagatap, Director Chemistry Group and Chairman of the organizing Committee inaugurated the event. Prof. Ganapati D. Yadav, Vice-Chancellor, Institute of Chemical Technology, Mumbai delivered the inaugural lecture entitled 'Synthesis and applications of novel catalytic and allied materials for development of green processes'. In the Inaugural function, Proceedings of the 6<sup>th</sup> ISMC, Special Issue of SMC Bulletin on 'Role of Chemistry in Clean India' (Volume 7 issue No 1) and Special Issue of the Proceedings of National Academy of Sciences India on Organometallics (Volume 86, issue No 4) were released by Dr. B.N. Jagatap, Dr (Mrs) K.I. Priyadarsini and Prof. G.D. Yadav, respectively.

There were 15 scientific sessions and 4 poster sessions. The scientific sessions comprised of 26 invited lectures from the leading scientists from India and abroad, 13 short lectures and two evening talks; one by Prof J. B. Joshi on 'large scale manufacture of nano-materials: Computational fluid dynamics and design' and the other by Dr. B. N. Jagatap on 'Did Indian civil services examination of 1895 influence chemistry Nobel Prize in 1908?'. Poster sessions were held on first four days and a total 272 posters were presented. On each day five best posters were selected by the expert committee for the best-poster awards given by Society for Materials

Chemistry (5 numbers); Royal Society of Chemistry (RSC, UK) (5 numbers); and Springer India (10 Numbers).

The deliberations of the symposium covered frontline research in diverse areas of material science such as nuclear materials, nano-materials, thin films, devices and sensors, materials for energy conversion and storage, biomaterials, magnetic materials, catalysts, soft matter, carbon based materials, high purity materials, organic materials, computational materials chemistry.

Speakers from India and abroad delivered invited talks on a variety of topics. These presentations, besides fundamental aspects, covered nano-materials for clean energy, hydrogen energy (both by photo- and thermo-chemical cycles), nano-materials for light harvesting, nano-porous materials, metallic glasses, functional materials, metal clusters and electro-catalysis by them, catalysts design for high activity, functional materials, oxide materials for luminescent and electrochemical applications, homeopathic medicines, chitosan polymer for therapeutic applications, polyolefin based hybrid materials, shape memory alloys, biosensors and cancer biomarkers, separation of fission products from high level nuclear waste, etc. In a five-day long deliberations, 5 scientists from countries like Germany, USA, Russia, and Japan, and 24 scientists from our national research centres like BARC, IITs, IISc and Universities delivered lectures on their recent work.

Valedictory session on 10th December, 2016 was presided over by Dr. B.N. Jagatap, Director, Chemistry Group. Many students, invited speakers and other delegates gave their feedback on the symposium. The event has been described by the delegates as a high standard, well organized and highly successful scientific symposium. Best poster awards were presented in the session.