

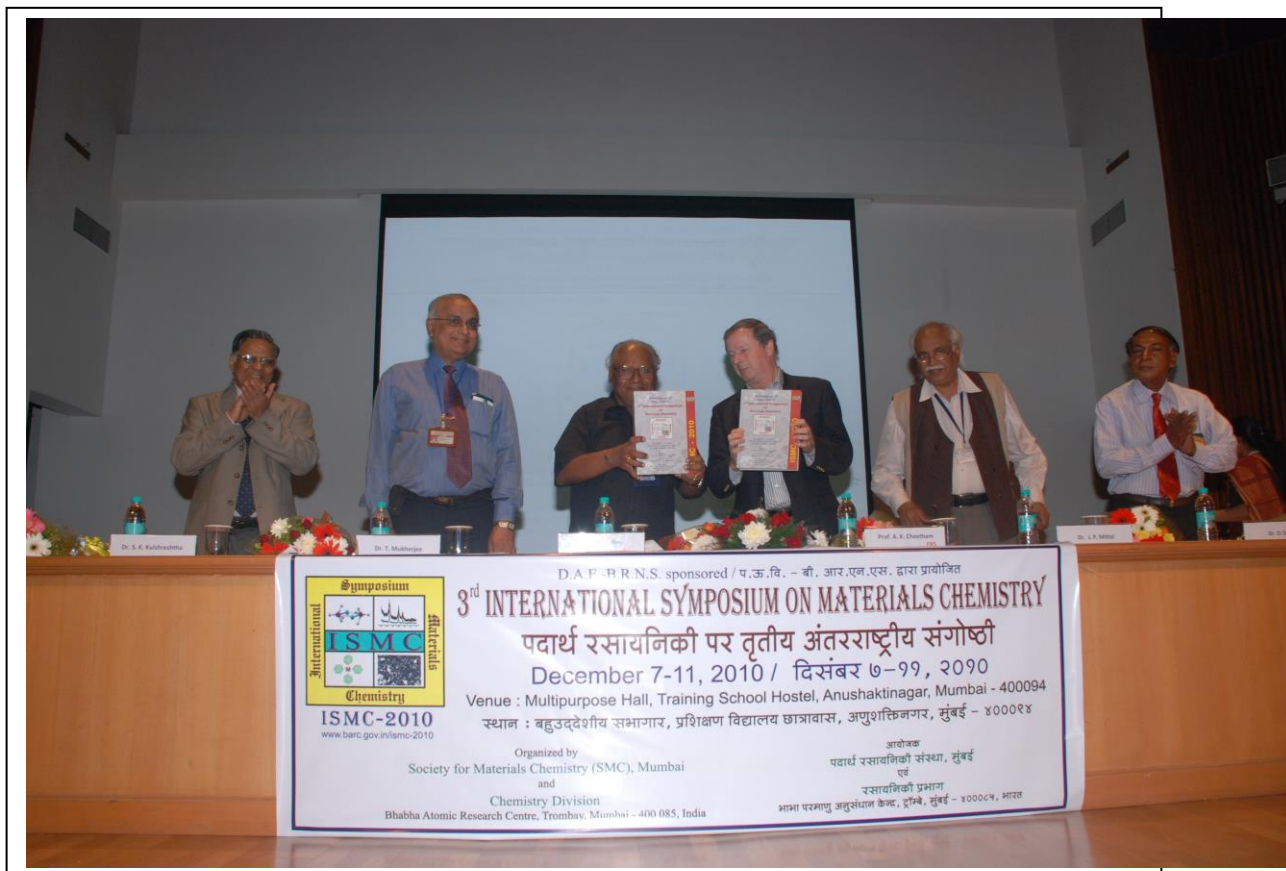
**REPORT ON
3rd DAE-BRNS INTERNATIONAL SYMPOSIUM
ON MATERIALS CHEMISTRY (ISMC – 2010)**

The 3rd DAE-BRNS International Symposium on Materials Chemistry (ISMC-2010) organized by Chemistry Division and Society for Materials Chemistry was held at BARC during 7-11 December, 2010. With an overwhelming response from participants of Indian and abroad, the symposium was convened with 35 invited talks and more than 450 contributed papers covering frontline research in diverse areas of Material Science such as Nuclear Materials, Fuel Cell Materials, Nanomaterials, Thin Film Devices and Sensors, Hydrogen Storage Materials, Magnetic materials, Catalysts, Polymers, Carbon based Materials, Organic materials and so on. The deliberations were focused on materials research programmes for harnessing power from nuclear fission, fossil fuels, hydrogen and other sources. The development of new technologies based on nanomaterials for the above applications e.g. in separation science was discussed at large. Eminent Scientist, Prof. C.N.R. Rao, FRS (Padma Vibhushan), in his key address highlighted the importance of advanced materials in emerging technologies. In particular he emphasized on graphene, which is emerging as an excellent multifunctional material.

Dr. S. Banerjee, Chairman, Atomic Energy Commission delivered a very lucid special evening lecture on “Phase transformations in solids: A scheme for classification”. Prof. A.K. Cheetham, FRS, delivered a talk on “Inorganic–Organic Framework Materials”. Other speakers from India and abroad gave invited talks on a variety of topics such as defects chemistry of fluorite type materials, high pressure studies, synthesis of metal hydrides, nanomaterials, catalysis, SANS/SAXS characterization of food materials, actinide oxides, hypervalent urania, boron dipyromethane, organic semiconductor films, inorganic-organic hybrid materials, theoretical modeling as well as experimental studies on solar cell absorbers, metal chalcogenides, materials for environment, negative thermal expansion materials, nano-fluids, multi-layers, thin films, radiation induced modification of polymeric materials and many other topics in the front line research in materials chemistry. In addition, several short presentations were also made.

In the five day long deliberations, 20 scientists from advanced countries like USA, Russia, Sweden, France, Germany and Canada, and 15 scientist from our national research centres, IITs and Universities delivered the presentations of their recent work. About 450 posters presentations carried out in four consecutive days (7-10 December, 2010) were well attended by all the delegates with keen interest. For about 100 posters presented each day, seven best posters were selected on each day for awards by the expert committee. Valedictory session on 11th December, 2010 was presided over by Dr. T. Mukherjee, Director, Chemistry Group. Dr. A.K. Suri, Director, Materials Group was the chief guest of the valediction function. Many students, invited speakers and other delegates gave their feedback about the event.

The deliberations and interactions among the delegates during platform of ISMC-2010 is likely to culminate in several new BRNS projects as desired by various non-DAE delegates. A special lecture on BRNS activities was also organized, which was delivered by Dr. Sangeeta.



From Left to Right: Dr. S. K. Kulshreshta, Dr. T. Mukherjee, Prof. C. N. R. Rao, Prof. A. K. Cheetham, Dr. J. P. Mittal and Dr. D. Das