

A report on

2nd DAE-BRNS International Symposium on Materials Chemistry (2-6 December 2008, BARC, Mumbai)

The 2nd DAE-BRNS sponsored International Symposium on Materials Chemistry (ISMC-2008) organized by the Society for Materials Chemistry and Chemistry Division was held at Bhabha Atomic Research Centre (BARC) during 2- 6 December, 2008. There has been an overwhelming response from participants, both from India and abroad, despite disruption in normal life in Mumbai by terrorists. There were 36 invited talks and more than 350 contributed papers covering frontline research in diverse areas of materials science. The symposium covered topics such as Nuclear Materials, Fuel Cell Materials, Thin film devices and Sensors, Hydrogen storage materials, Magnetic materials, Catalysts, Polymers and Nano materials. 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 were discussed at large. Eminent Scientist Prof. M. M. Sharma (Padma Bhushan), in his inaugural address, highlighted the importance of materials science in emerging technologies to improve the quality of life in developing countries. Dr. R. Chidambaram, Principal Scientific Advisor to the Government of India emphasized the need for directed basic research and innovations in R&D sector for the upliftment of common man. Dr. S. Banerjee, Director BARC delivered a special lecture on phase transformations in alloy systems relevant to nuclear technologies. Dr. T. Mukherjee, Director, Chemistry Group, in his welcome address, highlighted the various R& D activities being undertaken by the Chemistry Division, BARC. Prof. D. Guyomard from University of de Nantes, CNRS, France discussed the recent developments in improving the storage capacity of Lithium ion batteries. Prof. D. Bahadur of IIT Mumbai focused on the developments in new layered magnetic materials for drug delivery applications. Prof. W. Kaim of University of Stuttgart, Germany discussed about nonlinear optical materials based on boron containing molecules. Prof. S. D. Mahanti from Michigan State University, USA discussed his recent research on novel thermoelectric materials. Several other scientists from countries like USA, Russia, Sweden, France, Germany and Canada presented their papers in the 5 day long deliberations. About 300 posters were presented during the

conference on four consecutive days. On an average 75 posters were presented from 2nd to 5th December, 2008 and for each day six best poster awards were given. Valedictory session on 6th December, 2008 was presided by Dr. T. Mukherjee, Director, Chemistry Group. Prof. V.I. Bregadze from Russian Academy of Science, Russia conferred the best poster awards to the winners. Many students, invited speakers and other delegates gave their feedback about the event.

Benefits from the Symposium

The symposium was highly beneficial in several ways. A large number of youngsters from BARC got a unique opportunity to interact with some of the leading scientists from overseas. The five days symposia witnessed an intense exchange of ideas, which will be useful in the ongoing research activities at Chemistry Division and also to other Divisions at BARC. The symposium was equally beneficial to the large number of outstation delegates from Universities and various instates in India. It will lead to initiation of collaborations. The delegates were also made aware of various activities of BRNS.

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