

Programme (Venue : NCL Auditorium)

- 8.30 - 9.30 am Registration
- 9.30 - 9.40 am Welcome by **Dr. M. G. Kulkarni** (Chair, Polymer Science and Engg. Div., NCL, Pune)
- 9.40 - 9.50 am "About Maharashtra Academy of Sciences" by **Dr. S. Radhakrishnan** (Vice-President, MASC and Head R&D, Aquapharm Chemicals Pvt. Ltd.)
- 9.50 - 10.10 am Address by Chief Guest
- 10.10 - 10.40 am **Lecture I : Green chemistry** (Prof. G. D. Yadav, President, MASC and Director, Institute of Chemical Technology, ICT, Mumbai)
- 10.40 - 11.10 am **Lecture II : Alternative feed-stocks (other than petrochemicals) for polymers** (Dr. S. Radhakrishnan, Head, R&D, Aquapharm Chemicals Pvt. Ltd., Pune)
- 11.10 - 11.40 am **Lecture III : Chemical routes to advanced functional materials for energy applications** (Dr. S. B. Ogale, Chief scientist, Polymer and Advanced Material Lab., NCL, Pune)
- 11.40 - 12.00 Tea
- 12.00 - 1.00 pm **Panel Discussion "Next two decades of chemical sciences and technology"**
Co-ordinator : **Dr. Suresh T. Gore**, Director, Knowchem Laboratories Pvt. Ltd.
Panelists : **Prof. W. N. Gade**, Director, BCUD, University of Pune, **Prof. D. D. Dhavale**, HOD, Chemistry Department, University of Pune & Chemical industry representatives
- 1.00 - 2.00 pm Lunch
- 2.00 - 2.30 pm **Lecture IV : Advances in the drug development in the next two decades** (Dr. Mukund Gurjar, Emcure Pharma, Pune)
- 2.30 - 3.00 pm **Lecture V : Peeping into future of biochemical sciences** (Dr. Vidya Gupta, Chair, Biochemical Sciences Division, NCL, Pune)
- 3.00 - 3.45 pm **Plenary lecture : The richness of chemistry** (Prof. P. Balaram, Director, Indian Institute of Science (IISc, Bengaluru)
- 3.45 - 4.00 pm **Concluding Remarks** (Dr. M. V. Deshpande, Workshop Convenor)
- 4.15 - 4.30 pm **Vote of Thanks** (Dr. S. S. Tambe, Jt. Secretary, MASC)

Maharashtra Academy of Sciences
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International Year of Chemistry Celebration

One-day Workshop
on

**"NEXT TWO DECADES OF
CHEMICAL SCIENCES &
TECHNOLOGY"**

Organized by



Maharashtra Academy of Sciences (MASC)

Jointly with



**National Chemical Laboratory
(NCL)**



**Department of Chemistry,
University of Pune (UoP)**



on
23rd September (Friday), 2011

at
**National Chemical Laboratory
Dr. Homi Bhabha Road
Pune 411 008**

International year of chemistry 2011

The International Year of Chemistry 2011 (IYC 2011) is a worldwide celebration of the achievements of chemistry and its contributions to the well-being of humankind. The IYC 2011 is an initiative of IUPAC, the International Union of Pure and Applied Chemistry, and of UNESCO, the United Nations Educational, Scientific, and Cultural Organization. The goals of IYC 2011 are to increase the public appreciation of chemistry in meeting world needs, to encourage interest in chemistry among young people, and to generate enthusiasm for the creative future of chemistry. The year 2011 coincides with the 100th anniversary of the Nobel Prize awarded to Madame Marie Curie. The year will also be the 100th anniversary of the founding of the International Association of Chemical Societies, providing a chance to highlight the benefits of international scientific collaboration. Some of the path-breaking achievements in recent years in Chemistry are:

- *Smart material*, a shape-memory alloy (SMA) is an alloy that "remembers" its original, cold-forged shape : returning to the pre-deformed shape by heating.
- A new polymer material that can repeatedly heal itself at room temperature when exposed to ultraviolet light presents the tantalizing possibility of products that can repair themselves when damaged.
- Communication through chemistry. The transmission of alphanumeric information in the form of light pulses with no electricity: the "infofuse".
- Extra large artificial diamonds prepared by chemical vapour deposition (CVD), where carbon atoms in a gas are deposited on a surface to produce diamond crystals.
- Plastic antibodies used in live organisms – stopping the spread of bee venom through the bloodstream of mice.
- Development of Micro Chemo Mechanical Systems (MCMS). Chemically triggered microscopic devices that can manipulate small objects with precision.

About the workshop

Indian scientists have made sizeable and important contributions to chemical sciences and technology. Among the international publications during the last decade (2000-10) contributed by Indian scientists more than 28% of publications belong to the field of chemistry alone (Thomas Reuters 2011). In this backdrop, a one-day state level workshop on "**Next two decades of chemical sciences and technology**" is being organized by MASc on September 23, 2011 at NCL, Pune. The deliberations will be on the role of chemical science and technology, their importance and value in the next two decades. The admirable advances in the field of chemical science and technology, have transformed lives in a multitude of ways. The invited experts will shed light on the different branches of chemistry such as green chemistry, polymers, advanced materials, pharmacology, and biological chemistry.

Maharashtra Academy of Sciences (MASc)

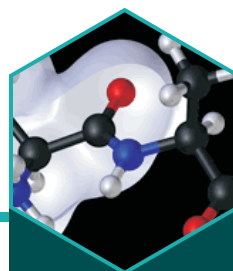
The Maharashtra Academy of Sciences is the premier scientific learned society of the state of Maharashtra. It was established in 1976 with the specific aim of highlighting the scientific and technological issues confronting the state. The academy recommends appropriate steps necessary to be undertaken by the concerned authorities for the promotion of science and technology. The academy has a very wide spectrum of interests which includes promotion of science and technology and has scientists of eminence as its fellows in all the major scientific disciplines. Besides promoting science and technology, the academy addresses various issues related to the development of Maharashtra in the areas of education, industry, communication, agriculture, rural development, human resource development, health, environment, etc. For instance, last year MASc jointly with Association of Microbiologists of India organized a one-day workshop on H1N1 in Sept. 2010. A number of such seminars on different topics such as biodiversity, plastics and environment, changes in climatic conditions and monsoon, etc. were held by MASc. More information about the Academy and its activities can be found at the academy website www.mahascience.org.

National Chemical Laboratory (NCL)

NCL, Pune, is an internationally acclaimed premier research, development and consulting organization with a focus on chemistry and chemical engineering. It has a successful record of research partnership with industry. For more information on NCL visit the website <http://www.ncl-india.org>

University of Pune (UoP)

University of Pune, one of the premier universities in India, is home to 46 academic departments. It is popularly known as the 'Oxford of the East'. It has about 307 recognized research institutes and 612 affiliated colleges offering graduate and under-graduate courses. The details of UoP are available on the website <http://www.unipune.ac.in>



Registration Fee (includes workshop handouts, lunch and tea)

A CD titled "Nobel Prizes in Chemistry (1901-2011)", will also be distributed to all the registered participants.

For registration on or before September 19, 2011

- Students : Rs. 350/-
- Fellows and Young Associates of MASc : Rs. 400/-
- Teachers and scientists : Rs. 600/-
- Industry delegates : Rs. 1500/-

Who can attend ?

The post-graduate students, College and University teachers, researchers and industry delegates.

Only registered participants can attend the programme.