

Celebrating the ‘mother of all science’

What is special about an International Year of Chemistry (IYC)? It is not just another year being ‘celebrated’ in the name of an area that is important but not as popular as it should be, and needs to be communicated about. Expectations are high that 2011 will be a head start in passing the excitement of chemistry to non-chemists and will bring forth its potential¹. According to the prospectus of IYC (http://www.chemistry2011.org/assets/42/IYC_prospectus.pdf), the decision to declare 2011 as IYC was taken by the United Nations General Assembly held in 2008 to celebrate the achievements and to highlight the contributions of chemistry.

The IYC also draws attention to women chemists as the year coincides with the 100th anniversary of the Nobel Prize for Chemistry to Marie Curie for the discovery of radium and polonium elements (http://nobelprize.org/nobel_prizes/chemistry/laureates/1911/). It is also 350 years² for the publication of Robert Boyle’s *The Sceptical Chymist* that gave birth to ‘modern chemistry’. The International Association of Chemical Societies has also completed 100 years of its foundation in 2011. The association was later succeeded by the International Union of Pure and Applied Chemistry (IUPAC) (http://www.iupac.org/web/nt/2008-12-30_IYC), more popular for its chemical nomenclature system. Revolving around the theme, ‘Chemistry – our life, our future’ the activities will focus on sustainable development, on encouraging the young and also on public outreach. (For details of the events planned worldwide see: <http://www.chemistry2011.org/participate/events/>.)

In India the celebration began with C. N. R. Rao’s talk on 1 January at a function arranged by the Chemical Research Society of India (CRSI) in Bangalore at the Indian Institute of Science. CRSI functions mainly to popularize chemistry, reward achievers and to promote academia–industry partnerships. It also interacts with other international

societies and brings out publications in the form of newsletters, books and the journal *Chemistry – An Asian Journal*, which is owned by the Asian Chemical Editorial Society, a conglomeration of 12 chemical societies³. The society conducts a national symposium in February and a mid-year meeting annually (<http://crsi.org.in/>). CRSI has planned four zonal meetings in 2011 – at the National Chemical Laboratory in May, North Bengal University in July, University of Jammu in September, and Pondicherry University in December. The 12 regional chapters of CRSI will also conduct workshops, meetings and lectures during the year⁴. CRSI will also recognize chemistry teachers as part of the celebration⁵.

There are other such organizations across the globe including the Egyptian Chemical Society, Chemical Society of Japan, Royal Society of Chemistry, European Association for Chemical and Molecular Sciences, etc. The world’s largest scientific society, the American Chemical Society (ACS) was founded in 1876 (<http://acswebcontent.acs.org/landmarks/landmarks/draper/index.html>). It caters primarily to the requirements of chemistry researchers in the US (http://pubs.acs.org/cen/coverstory/89/890_1cover.html). The major activities of ACS are publications, education and public outreach. The first journal published from ACS was the *Journal of the American Chemical Society*, started three years after the establishment of ACS. It now publishes 38 journals in sub-fields such as applied chemistry and chemical engineering; medicinal chemistry; organic chemistry; physical, inorganic and analytical chemistry; biochemistry, biotechnology, biochemistry and biomedical sciences; and macromolecular chemistry. The ACS newsletter *Chemical & Engineering News* is widely read. While most of the activities of IYC kicked off in January this year, ACS began its efforts in July last year by bringing out a monthly newsletter, *IYC Bulletin*.

Chemistry is the central science that has contributed to agriculture, medicine and energy. It paved way for molecular biology with the discovery of alpha-helical structure by Linus Pauling. Rao notes, ‘chemistry is the queen and servant of biology as well as of materials science’. How chemistry has influenced other sciences is also clear from the 2009 Chemistry Nobel to Venkatraman Ramakrishnan, Thomas A. Steitz and Ada E. Yonath, ‘for studies of the structure and function of the ribosome’ (http://nobel-prize.org/nobel_prizes/chemistry/laureates/2009/).

To celebrate IYC, activities organized by these societies are under way in different forms. Celebrations are also evident in the form of special publications being brought out by various journals, and editorials being dedicated to the issues afflicting chemical science. An editorial in *Current Science*⁶ notes, ‘Pauling’s example of viewing the discipline in its broadest sense has never been followed in the development of chemistry teaching and research in India’. The editorial¹ in *Nature Chemistry* notes, ‘Chemistry generally has a bad press and is often misunderstood in the mainstream media’. Another issue, as the *Nature* editorial² puts it, is ‘Chemistry’s understated majesty’ but it will be agreed upon that ‘when chemistry is good, it is very, very good. It deserves its celebration’².

1. *Nature Chem.*, 2011, **3**, 1.
2. *Nature*, 2011, **469**, 5.
3. Johnson, B., *Chemistry – An Asian Journal*, 2011, **6**(1), 4–7.
4. Krishnan, V., *Pers. Commun.*, 2 February 2011.
5. *CRSI Newsletter*, 2010, **11**(1).
6. Balam, P., *Curr. Sci.*, 2011, **100**, 5–6.

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