

Moving Toward an International Year of Chemistry

by David StC. Black



As I write this column, we have just received news that the Executive Board of UNESCO has endorsed the proposal for the United Nations to proclaim 2011 as the International Year of Chemistry (IYC). The wording of the proposal is as follows:

The Executive Board,

1. recognizing that humankind's understanding of the material nature of our world is grounded in our knowledge of chemistry
2. stressing that education in and about chemistry is critical in addressing challenges such as global climate change, in providing sustainable sources of clean water, food and energy, and in maintaining a wholesome environment for the well-being of all people
3. considering that the science and application of chemistry produces medicines, fuels, metals, and virtually all other manufactured products
4. taking note of the ongoing United Nations initiatives in industrial best practices
5. aware that the year 2011 provides the opportunity to celebrate the contributions of women to science on the 100th anniversary of the awarding of the Nobel Prize in Chemistry to Maria Sklodowska-Curie
6. being further aware that the year 2011 provides the opportunity to highlight the need for international scientific collaboration on the 100th anniversary of the founding of the International Association of Chemical Societies
7. having examined document 179 EX/47 and Add. Rev., [containing supporting letters and statements from numerous National Adhering Organizations and delegations]
8. welcomes the unanimous resolution of the International Union of Pure and Applied Chemistry, at its 2007 Council meeting, to declare 2011 as the International Year of Chemistry and to play a lead role in coordinating and promoting chem-

istry activities at the national and regional levels around the world

9. invites the director general to support all efforts leading the United Nations General Assembly to declare 2011 the International Year of Chemistry
10. recommends that the General Conference adopt, at its 35th session, a resolution on this subject.

The proposal was placed before the UNESCO Executive Board by the Ethiopian representative and supported officially by approximately 25 other countries. IUPAC is grateful to all those involved in the enormous amount of careful work to reach this point. The effort was coordinated brilliantly by a project task group led by Peter Mahaffy, which was charged with discovering and launching the correct process for the designation of an International Year. Of course, there is still a long way to go, and we call on all our National Adhering Organizations (NAOs) to encourage further diplomatic support from their respective United Nations delegations to achieve "International Year" status, as a formal request will go to the next United Nations General Assembly.

Since a decision will not be made for some time, the Bureau decided at its meeting in March 2008 to proceed at full speed with the necessary planning on the assumption that the proclamation will be successful. If it is not, all the activities can take place under a slightly different name, such as the IUPAC World Year of Chemistry.

At this stage, a relatively small but broadly representative Management Committee has been set up to supervise the project, with John Malin as chair. This will be assisted by a larger Advisory Board designed to bring in ideas, expertise, and links to national organizations. A website will be maintained to inform NAOs of developments and to coordinate and publicize reports of activities around the world.

Broadly speaking, the IYC is designed to promote chemistry, which, as we know, is the central and controlling ingredient in life itself. Chemistry is the only creative science available for future sustainability and development of our way of life. Indeed, chemical research is essential if we are to overcome future problems relating to food, water, health, energy, transportation, and lifestyle.

More specifically, the IYC will:

- enhance international cooperation
- serve as a focal point for activities by national chemical societies and other national bodies,

- educational institutions, and nongovernmental organizations
- improve the understanding and appreciation of chemistry among the public
 - promote the role of chemistry in contributing to solutions to global problems
 - build capacity by engaging young people with scientific disciplines, especially the scientific method of analysis developed by hypothesis, experiment, analysis and conclusions

IUPAC will plan for some key events, such as launching ceremonies in December 2010 at PACIFICHEM and in January 2011 (probably in Paris and hopefully in liaison with UNESCO), a major celebration at the IUPAC Congress in San Juan, Puerto Rico in August 2011, and a closing event in December. However, most of the activities will be organized by the various national chemical societies, and in many cases will be similar to those already being undertaken, such as a science day or an exhibit, but with the added publicity value and international linkages that a formal International Year will provide. Some proposed activities have already been collected in a background document that accompanied the proposal to UNESCO:

- developing a web-based “toolkit” of ideas for use by organizers of IYC events
- creating, on the IUPAC website, a “page” for IYC with links to national chemistry celebrations worldwide, including a listing of Green Chemistry activities
- interacting with government leaders to educate them about the importance of a strong chemical community
- providing practical, appropriate chemistry demonstrations for all levels for students, from pre-school to university
- organizing visits to industrial sites, including chemical companies, energy facilities, metal factories, petroleum refiners, food producers, breweries, vintners, or distillers

- publicizing the contributions that chemistry makes to every nation’s economy by submitting articles to periodicals and newspapers
- sponsoring poster exhibitions highlighting the usefulness of chemistry
- organizing problem-solving projects through which students can use their knowledge of chemistry to develop solutions to local problems
- developing television and radio programs explaining the necessity, ubiquity, and benefits of chemistry
- publicizing the contributions that chemistry has made to improving our lives, particularly through recent developments in chemical research
- holding career fairs and inviting professionals to talk about how they use chemistry in their jobs
- organizing hands-on activities and demonstrations to help participants gain an understanding of what it would be like to work in a chemistry-related field

One of the early acts of the Management Committee will be to consider ways to raise funds to promote the IYC. The aim is to be able to assist NAOs and national chemical societies, especially the smaller ones, to run a full range of excellent programs. Interested parties should refer to the website of the World Year of Physics 2005 <www.wyp2005.org> and the International Year of Planet Earth 2008 <www.yearofplanetearth.org> for examples of effective programs.

In summary, this is your year and your opportunity to promote chemistry in your region in the context of dynamic international cooperation that will showcase the wonders and opportunities of chemistry, and celebrate its achievements and capacity for the enhancement of our quality of life. 

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42nd IUPAC Congress—Chemistry Solutions

Glasgow, Scotland, UK | 31 July–6 August 2009 | www.iupac2009.org