International Year of CHEMISTRY 2011

Chemistry—our life, our future  www.chemistry2011.org
Background and Concept

The concept of IYC 2011 started with the recognition by IUPAC that a number of scientific disciplines have achieved significant benefits from securing designation by the United Nations of an international year pertaining to their field.

The idea of holding a year of chemistry was first discussed in 2006, during the April meeting of the IUPAC Executive Committee.

- IUPAC Endorsement – August 2007
- UNESCO Support – April 2008
- UN Declaration – December 2008
International Year of Chemistry 2011

At its General Assembly in 2007 IUPAC unanimously approved a resolution in favour of the proclamation of 2011 as the Year of Chemistry.

The year 2011 marks the one-hundredth anniversary of the Nobel Prize in Chemistry awarded to Marie Sklodowska Curie, recognizing her discovery of the elements radium and polonium.

It is also the one-hundredth anniversary of the famous Solvay conference in Brussels, which led to the formation of IUPAC in 1919.
International Year of Chemistry 2011

On 30 December 2008 - The 63rd General Assembly of the United Nations has adopted a resolution proclaiming 2011 as International Year of Chemistry, placing UNESCO and the International Union of Pure and Applied Chemistry (IUPAC) at the helm of the event.
Objectives of the International Year of Chemistry

• Increase the public appreciation and understanding of chemistry in meeting world needs
• Encourage interest of young people in chemistry
• Generate enthusiasm for the creative future of chemistry
• Celebrate the role of women in chemistry and major historical events in chemistry, including the centenary of Marie Sklodowska Curie’s Nobel Prize, recognizing her discovery of the elements radium and polonium.
IYC 2011

All known matter – gas, liquid and solid – is composed of the chemical elements or of compounds made from those elements. Humankind’s understanding of the material nature of our world is grounded in our knowledge of chemistry. Indeed all living processes are controlled by chemical reactions.

The International Union of Pure and Applied Chemistry (IUPAC) and UNESCO strongly believe that it is time to celebrate the achievements of chemistry and its contributions to the well-being of humankind.
IYC 2011

Molecular transformations are basic to production of foodstuffs, medicines, fuels and materials – essentially all manufactured and extracted products. We will rely on this science to maintain a sustainable, wholesome environment for all the earth.

Chemistry is the key to sustainable development.

*IYC 2011 is a unique opportunity for everyone to celebrate the central contributions of chemistry.*
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Conversation between Chemistry and Society about the future shape of chemistry for sustainability set in the context of chemistry’s achievements
United Nations Millennium Goals

Goal 1: **Eradicate extreme poverty and hunger**

Goal 2: **Achieve universal primary education**

Goal 3: **Promote gender equality and empower women**

Goal 4: **Reduce child mortality**

Goal 5: **Improve maternal health**

Goal 6: **Combat HIV/AIDS, malaria and other diseases**

Goal 7: **Ensure environmental sustainability**

Goal 8: **Develop a Global Partnership for Development**

**CHEMISTRY is vital to achieving these goals!**
Global Partners
IUPAC and UNESCO – Organizing Partners

- United Nations
- Federations of Chemical Societies
  FACS, FASC, FLAQ, EuCheMS
- National Chemical Societies
- Industry
- NGOs
- Educational and Research Institutions
- Individuals
Making an Impact

• highlight the nature, beauty and relevance—both economic and environmental—of chemistry to the modern world

• use the media effectively to enhance the profile of chemistry, as viewed by pupils, the general population and politicians

• work together to achieve these goals

*IYC is a chance that will not come again for some time . . .*
Cornerstone Events

Opening Ceremony
under the aegis of the UN, UNESCO, and IUPAC
Jan 27-28, 2011 – Paris, France
*theme* - Chemistry and the UN Millennium Goals

**IUPAC World Congress** - "Chemistry Bridging Innovation among the Americas and the World"
Jul 30 - Aug 7, 2011 – San Juan, Puerto Rico

**Closing Event** - under the patronage of the Chemical and Pharmaceutical Industry
Dec 1, 2011 – Brussels, Belgium
Other Key Events

**Pacifichem 2010** – Pre-inaugural reception publicizing the International Year for Pacific Rim participants
Dec 15-20, 2010 – Honolulu, Hawaii, USA

**Chemistry – the key to Africa’s future**
Congress of the Federation of African Societies of Chemistry (FASC)
Jan 16-21, 2011 – Johannesburg, South Africa

**CHEMRAWN** - Symposium on Biofuels
Sep 2011 *(date tba)* – Kuala Lumpur, Malaysia
Global Water Experiment

- Students around the world (elementary, secondary and/or tertiary) measure, collect samples or data, e.g., water samples for isotopic composition and pH, send to a collective database

- Topic related to IYC themes – chemistry and sustainability; likely focus on water supplies
Activities – some examples

• African Conference - Science, education and capacity building challenges related to SAICM (UN’s Strategic Approach to International Chemicals Management) implementation.

• Numerous national proposals from commemorative postage stamps, open days and specific celebrations, for example, for Madame Curie at the Sorbonne/ L’Oreal award for women in science

• Celebrating stories of chemistry
Activities – more examples

- Re-energising existing national/regional outreach activities
- Social networking (facebook, YouTube) on chemistry-related questions
- Video clips (existing and new) to promote the contributions of chemistry
- Providing real expertise through an “ask a scientist” program
- Educational resources – chemistry board game, Australian chemistry quiz, videos of famous chemists, science fair participants
Celebrate Chemistry

The International Year of Chemistry – 2011 will celebrate the achievements of chemistry and its contributions to the well-being of humankind.

From Ideas to Activities

You can participate in the IYC 2011 in many different ways. Here are just a few ideas and sample activities of earlier projects. What are you going to do? Think and start planning...

Events

Dec 15-20, 2010
PACIFICHEM - promoting collaborations among chemists of the Pacific Rim countries

Jan 16-21, 2011
FASC Congress - Chemistry, the key to Africa’s future

Jan 27-28, 2011
IYC 2011 Opening Ceremony at UNESCO HQ, Paris, France

News

May 1, 2009
IUPAC President Publicizes the International Year of Chemistry

April 1, 2009
Moving Ahead with the IYC

Dec 30, 2008
UN declares 2011 as International Year of Chemistry