

Proclamation of 2011 as a United Nations International Year of Chemistry

Explanatory Note

I. Introduction

1. 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.
2. The science of chemistry contributes enormously to the economic progress of humanity. The chemical industry and also those companies producing medicines, fuels, metals, and virtually all other manufactured products depend upon chemistry.
3. Chemistry plays a key role in providing solutions to many of the challenges facing the world today, helping to address the Millennium goals. In particular, an understanding of chemistry is essential as the basis for medicine and public health, 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.
4. In order to ensure the continued health of this science and to continue to attract excellent students as its practitioners, it is important that the general public appreciate the many contributions that chemistry makes to meet basic human needs, reduce poverty, protect the well being of our planet, and improve the quality of life.

II. Rationale and Objectives of an International Year of Chemistry

5. An International Year of Chemistry will:
 - Serve as a focal point for activities by national chemical societies, educational institutions and non-governmental and inter-governmental organizations
 - Enhance the understanding and appreciation of chemistry among the public
 - Promote the role of chemistry in contributing to solutions to many global problems
 - Build capacity by engaging young people with scientific disciplines
 - Serve as a catalyst for international cooperation.
6. An International Year of Chemistry will make a strong science education contribution toward the goals of the United Nations Decade of Education for Sustainable Development, particularly in the key action areas of health and environment. National and international activities carried out during the

International Year will emphasize the importance of chemistry education in contributing toward sustainable use of the natural resource base for all of life.

7. An International Year of Chemistry will help to create the public understanding required to support ongoing UN initiatives in industrial best practices, science education, and climate change. An understanding of the complex chemical interactions of both natural and anthropogenic substances in our ecosystem is crucial to public understanding of and response to the challenges of a changing climate.
8. The year 2011 marks the one-hundredth anniversary of the Nobel Prize in Chemistry awarded to Maria Sklodowska-Curie, recognizing her discovery of the elements radium and polonium. Recognizing Dr. Curie's achievements will be an inspiration to all students, especially women, to pursue careers in chemistry and in science.
9. The year 2011 also marks the one-hundredth anniversary of the founding in Paris of the International Association of Chemical Societies, to address the need for international cooperation among chemists and international standardization of nomenclature, atomic weights, physical constants, and scientific communication.

III. Coordination of International Year of Chemistry and UNESCO's Role

10. This initiative is being led by the International Union of Pure and Applied Chemistry (IUPAC), founded in 1919 by chemists from academia and industry as the successor to the International Association of Chemical Societies. IUPAC has a truly global reach with 51 National Adhering Organizations and 21 Associate National Adhering Organizations. At its General Assembly in Torino, Italy in August 2007, the IUPAC Council unanimously approved a resolution in favor of the proclamation of 2011 as the Year of Chemistry.
11. IUPAC will serve in a coordination and communication role for International Year of Chemistry activities that will be planned by national chemical societies, ministries of education, educational institutions, and non-governmental and inter-governmental organizations. In doing so, IUPAC will cooperate with UNESCO to highlight the role of chemistry in international science and technology-based actions to build capacity to address the needs of society, and support access for both women and men to science education.
12. An International Year of Chemistry with a focus as outlined in Points 1-9 above, will contribute to achieving the goals to (a) advance science and technology for sustainable development and (b) harness international cooperation for science and technology capacity building set out in the *Ministerial Round Table on Science and Technology for Sustainable Development and the Role of UNESCO*, at the 34th Session of the UNESCO General Conference.

13. UNESCO has played a crucial role in the designation and celebration of the International Year of Physics, the International Year of Planet Earth, and the International Year of Astronomy. Through its Executive Board and General Conference, UNESCO will be an important champion to obtain United Nations designation of an International Year of Chemistry.

IV. Conclusion

14. International Years may only be proclaimed by the United Nations during their annual General Assembly meetings and only at the request of one (or more) of the United Nations Member States. Ethiopia, which is also the host country for the Federation of African Societies of Chemistry, is taking the lead role to bring this request forward, understanding that a significant number of other United Nations member countries will support this initiative.
15. An International Year of Chemistry will support and raise the profile of UNESCO in giving global leadership toward building capacity in science and technology for sustainable development.

Proposed draft Decision

16. In light of the above, the Executive Board may wish to adopt a decision along the following lines:

The Executive Board,

Recognizing that humankind's understanding of the material nature of our world is grounded in our knowledge of chemistry,

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,

Considering that the science and application of chemistry produces medicines, fuels, metals, and virtually all other manufactured products,

Being aware that the year 2011 provides the opportunity to celebrate the contributions of women to science on the one-hundredth anniversary of the awarding of the Nobel Prize in Chemistry to Maria Sklodowska-Curie,

Being further aware that the year 2011 provides the opportunity to highlight the need for international scientific collaboration on the one-hundredth anniversary of the founding of the International Association of Chemical Societies,

Having examined document 179.X,

Welcomes the unanimous resolution of the International Union of Pure & Applied Chemistry (IUPAC), at its 2007 Council meeting, to declare 2011 as the International Year of Chemistry and play a lead role in coordinating and promoting chemistry activities at the national and regional level around the world, and

Invites the Director-General to support all efforts leading to the United Nations General Assembly to declare 2011 the International Year of Chemistry;

Recommends that the General Conference at its 35th Session adopt a resolution on this subject.