INTERNATIONAL UNION OF
PURE AND APPLIED CHEMISTRY

Advancing Chemistry Worldwide

IUPAC CENTENARY — PREPARATIONS KICKOFF

On 28 July 1919, the Union was formally registered, setting in place the foundation of the organization that we serve today. In 2019, IUPAC will celebrate 100 years. A Centenary is a noticeable milestone and a unique opportunity to recognize what we have accomplished and to acknowledge our role and responsibility in the future of chemistry.

As we start planning for the celebrations, volunteers and members of the IUPAC Bureau have outlined a vision for the Centenary, providing the following background and offering initial ideas. Members at large, including individuals and National Adhering Organizations, are invited to take note and share ideas. Over the coming months, specific initiatives will be announced inviting everyone to participate.

Background

As the curtain rose on the 20th century, chemistry was already a mature science and a thriving industry. But communication within the industry was difficult. There were few generally-accepted norms for the naming of chemical compounds and chemists routinely did so according to their own personal preferences, resulting in multiple names for a single, unique compound. This lack of a universally-accepted language in chemistry created a major barrier to the sharing of information, ultimately hindering efficient research and the rapid advancement of scientific discovery. Aware of this major barrier to the growth of scientific knowledge, a group of eminent chemists and visionaries from France, Belgium, Italy, UK and USA gathered in 1919 to create IUPAC.

The IUPAC founders were also aware that chemical instrumentation and methodologies were continuously evolving towards greater precision and that more tools were being developed to assess the chemical and physical properties of substances. Therefore, IUPAC was given the charter not only to create a nomenclature that would facilitate communication within the chemistry community, but also to develop standards and norms for the calibration and normalization of chemical substances.

What in 1919 perhaps seemed a distant and perhaps unachievable goal, is today a reality. Thanks to the efforts of a legion of chemists over many decades, advances in scientific research have escalated due to the creation of universally-accepted standards, terms and nomenclature.

IUPAC as a creator of the common language of chemistry

Conceived as an international organization, IUPAC was born in the aftermath of the First World War – an event that negatively impacted the public's perspective of science in general, and of chemistry in particular, leading them to question the peacetime role of chemistry and the societal benefits that it provides. Through the organization of regularly-scheduled scientific meetings worldwide, IUPAC has nurtured an international community that has dealt with all aspects of chemistry, pure as well as applied.

Today, one hundred years later, IUPAC and the field of chemistry jointly face many interwoven challenges such as globalization, the energy crisis, climate change, and other environmental challenges. The IUPAC Centenary offers an opportunity not only to commemorate this century-old organization, but also to rethink how IUPAC can better promote and advance the evolving field of chemistry. It is an opportune time to take a critical and ambitious look at IUPAC in order to prepare the global chemistry community for the future.

Chemistry is a major contributor to the well-being of humankind, from the ongoing evolution of better and more effective medicines to the production of safe, clean water. Some of its major breakthroughs such as the fixation of nitrogen to make fertilizer or the synthesis of nylon as a new material have greatly contributed to health and security, but there are still major challenges to be met. From societal challenges such as climate change to alternatives to fossil fuels, chemistry has a significant role to play in the invention of new solutions for a better and more sustainable future for all. Today's United Nations Sustainable Development Goals are both a call to and a source of inspiration for chemists. IUPAC, as the international organization of chemistry, should play a major role in creating the platform providing the resources and the network for delivering the needed solutions more effectively and in a collaborative and open manner.

IUPAC's legacy is very rich and one that should be celebrated. After a century of activity and growth, IUPAC has helped to shape a very dynamic field of knowledge. Chemistry has reinvented itself several times since 1919, reorganizing its structure through the creation of new sub-disciplines, fostering new topics at the crossroads of well-rooted specialties, and forging multidisciplinary communities for the resolution of contemporary problems, such as the creation of new materials and environmental studies. Along with its constant effort to shape and constantly improve the language of chemistry to reflect new developments, IUPAC has also been instrumental in the support of education and in the global growth of chemistry. IUPAC remains an indispensable resource for chemistry.

Events and Activities

In July 2019, IUPAC will meet in Paris for the World Congress and General Assembly. This is not a coincidence! When offering the venue, our French colleagues made the point of wanting to celebrate IUPAC centenary in the City of Light.

Several ideas for activities and events have been put forth as follows:

The Celebration of IUPAC's role in creating the common language of chemistry. This is recommended as the main theme of the Centenary activities. The 150th anniversary of Mendeleev's periodic table will also take place in 2019 and this would be highlighted in the celebration. The organizers of the 2019 World Chemistry Congress (WCC) plan several events celebrating the IUPAC Centenary. These events include sessions focused on IUPAC's role in the evolution of chemistry, the revolution of instrumentation in chemistry, the education and training in chemistry, and some of the scientists who have worked for IUPAC.

Establishment of an IUPAC International Day. IUPAC will approach International partners and invite the recognition an IUPAC International Day in celebration of IUPAC Centenary. Using social media, IUPAC members and chemists worldwide will create a virtual handshake.

Logo competition. Prior to the Centenary, students worldwide will be invited to design a logo as part of the celebration. [ed 25 Aug 2016 – details here]

Youth Activities. Examples include the creation of trading cards featuring chemical elements and molecules, highlighting key facts, etc.; competitions focused on the language of chemistry or the periodic table.

The IUPAC100 Celebrations will provide an unique opportunity for IUPAC and all its Members to highlight the importance of chemistry in an international enterprise. How will you celebrate?

www.iupac.org/iupac100

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