



International Union of Pure and Applied Chemistry

Experiences on working in IUPAC

Activities:

- High-temperature chemistry subsection 1995-1999 (Div I & Div II)
- Division II (Inorganic Chemistry)
 - Titular member (TM) 2006-2009 (two biannums)
 - Associate member (AM) 2010-2011
 - Secretary 2022-2019 (2 x 4 years)
 - Election committee 2020-



International Union of Pure and Applied Chemistry

How to get involved?

- High-temperature chemistry: in a conference
- Division II: Division vice-president Anthony West (Univ. Aberdeen/Sheffield) asked and Finnish Chemical Society proposed
- Elections every two years – period 2 x 2 years
 - National adhering organizations (NAO) make proposals and election committee is also looking for potential candidates
 - Election committee elects TM and AMs, amount of NRs not fixed
- Several conditions must be fulfilled in selection of division members
 - Geography
 - Gender
 - Expertise



International Union of Pure and Applied Chemistry

Division II – Inorganic chemistry

- President, vice-president , 8 titular members, 6 associate members, 10 NRs
- Expertises: atoms, molecules, materials
- Division has subcommittees
 - Commission on Isotopic Abundances and Atomic Weights (CIAAW)
 - Subcommittee on Isotopic Abundance Measurements
 - Subcommittee on Stable Isotope Reference Material Assessment
- Interdivisional subcommittee
 - Materials Chemistry, Green Chemistry
- Contacts to all other divisions and standing committees (ICTNS important)
 - Liaisons reports the news from and to the other divisions and committees
 - I was contact person to COCI (Chemical Industry) and active member in Materials Chemistry



International Union of Pure and Applied Chemistry

Division II – Inorganic chemistry

- Meetings every year – main meeting during General Assembly
- Length usually 1.5 days, content:
 - Reports from and to Council and Bureau
 - Reports from subcommittees, other divisions and standing committees
 - Division newsletter
 - IUPAC visibility outside
 - Division sponsored conferences
 - Project reports and new planned projects
 - Elections
- Special things (in collaboration with IUPAP):
 - New Chemical Elements Discovery and Naming of Them (7: 112-118)
 - Revised Atomic Weights (15: Zn, Cd, Mo, Se, Th...)



International Union of Pure and Applied Chemistry

Division II – Inorganic chemistry

- Projects formed the most important activity
- Project can be proposed by any chemist
- Topics should be related to the needs of chemists globally
- They can deal with nomenclature, terminology, standardization of measurements, critical evaluation of data, teaching of chemistry...
- Form a task group, fill the project submission form following the guidelines
- IUPAC did not support research but communication cost of the task group was covered
- Project typically lasts 2-4 years and its progress is reported regularly
- The output of the project can be report in Pure and Applied Chemistry journal, other scientific papers, conference presentations,
- In best case, Technical report or recommendation (special procedure)



International Union of Pure and Applied Chemistry

Division II – Inorganic chemistry

- Division had typically 15-20 running projects
- Typical topics of projects:
 - Towards a Comprehensive Definition of Oxidation State
 - Online Evaluated Isotope Ratio Database for User Communities
 - Guidelines for Measurement of Luminescence Spectra and Quantum Yields of Inorganic Compounds, Metal Complexes and Materials
 - Evaluation of Published Lead Isotopic Data for a New Standard Atomic Weight of Pb
 - Terminology and Nomenclature of Inorganic and Coordination Polymers
 - Survey of Definitions and Use of Common Solid-State Chemistry Terminology
 - Periodic Table of Life
 - Towards a Comprehensive Definition of Valence
 - The constitution of group 3 of the Periodic Table
 - Assessment of Reliability and Uncertainty of Solubility Data



International Union of Pure and Applied Chemistry

Working in IUPAC

- IUPAC is a global influencer
- IUPAC makes the rules and standards for chemistry
 - "Color books" give guidelines for every chemist
 - IUPAC has high impact on research and industry
 - IUPAC follows the development of chemistry (environment, health, energy...)
 - Distribution of good practises
- Working among top scientists
- Valuable networks