

Editors Note: Below you will find the 2018 Newsletter; it was compiled thanks to your kindness to send material. Please keep sending your items, including pictures, or suggested topics for future issues, via email to ohrstrom@chalmers.se. Please circulate this newsletter to your NAO:s and other interested parties. Kindest regards, Lars Öhrström.

Division II Members 2018-2019

President: [Öhrström, Lars](#); **Vice President:** [Javier Garcia Martinez](#); **Secretary:** [Leskelä, Markku](#);
Titular members: [Reedijk, Jan](#), (Past President) [Zhu, Xiangkun](#); [Armelaio, Lidia](#); [Karen, Pavel](#); [Robin Macaluso](#); [Hasegawa, Miki](#); [Drabik, Milan](#);
Associate members: [Powell, Annie](#); [Meesuk, Ladda](#); [Abdul Aziz, Farina](#); [Colón, Jorge](#); [Walczyk, Thomas](#); [Rabinovich, Daniel](#);
National representatives: [Galamba Correia, João](#); [Kalmykov, Stepan](#); [Knauth, Philippe](#); [Yoon, Kyung Byung](#); [Diop, Mayoro](#); [Leigh, Jeffery](#); [Sakai, Ken](#); [Trendafilova, Natasha](#); [Stilinović, Vladimir](#); [Metin, Onder](#); [Lim, Mi Hee](#); [Kulesza, Paweł J](#)

Division II Subcommittees and Commissions currently in operation are the following:

[Commission on Isotopic Abundance and Atomic Weights](#) Chair [Juris Meija](#)
[Subcommittee on Isotopic Abundance Measurements](#)
[Stable Isotope Reference Material Assessment](#)
[Subcommittee on Natural Assessment of Fundamental Understanding of Isotopes](#)
[Interdivisional Subcommittee on Materials Chemistry](#) Chair [Vladimir Gubala](#)

Division Off-Year Meeting & 2nd SOICSA

The division off-year meeting was held 2-5 October in conjunction with the 2nd Symposium of Organic and Inorganic Chemistry - Southern Africa, in Gaborone, Botswana. It was organised with the amicable help of the colleagues at the University of Botswana and the Chemical Society of Botswana.

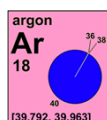
As per usual we reviewed projects and brought the members up to date with the various activities of different IUPAC bodies, including a report from Commission on Isotopic Abundances and Atomic Weights ([CIAAW](#)) and its Subcommittees.



A break-out session of the Division II Off-Year meeting with invited observers from Botswana, Zimbabwe and Namibia. Standing left to right: Dan Rabinovich, USA; Olayinka Oyetunji, Botswana; Gift Mehlana, Zimbabwe; Lars Öhrström, Sweden; Javier Garcia Martinez, Spain; Milan Drabik, Slovakia; Veikho Uahengo, Namibia; Seated: Lidia Armelaio, Italy; Thomas Walczyk, Switzerland; Markku Leskelä, Finland; Florence Nareetsile, Botswana.

Scheduled 2019 Meeting of Division II.

The Division Committee will meet in Paris, France, 5-10 July 2019, during the [IUPAC GA](#).



CIAAW reports that the standard atomic weight of argon has been changed based on recent evaluation of terrestrial isotopic abundances.

The Division also spend some considerable time discussing and revising the Division rules and operational guidelines. Of special importance is the Division's handling of new elements and future reports from joint IUPAC/IUPAP working parties.

Holding the Off-Year meeting in Gaborone was possible by combining this with [2nd Symposium of Organic and Inorganic Chemistry - Southern Africa](#). Financial support for this symposium mainly came from the [University of Botswana](#), Botswana; [Chalmers University of Technology](#), Sweden; and the [University of California – Berkeley](#), USA. A number of emerging scholars from the neighbouring countries were sponsored by IUPAC through the [Financial Support for Conference Program - Scientifically Emerging Regions](#) and by a grant from the [Berkeley Global Science Institute](#).

The symposium was opened by UB deputy Vice Chancellor Oathokwa Nkomazana delivering an inspiring speech about IUPAC goals and ambitions. Other talks were [Omar Yaghi](#)'s on "An Obsession with Science Discovery" and the "Philatelic Tour of Chemistry in Africa" by Dan Rabinovich.

The announcement of the Periodic Table of Young Chemist awards for Mo, W, Te and Sr was presided by IUPAC Executive Committee member Javier Garcia Martinez and Chemical Society of Botswana president Florence Nareetsile, broadcasted live on IUPAC's Facebook page.



Some of the participants at the 2nd Symposium of Organic and Inorganic Chemistry - Southern Africa in Gaborone, Botswana, co-organised by Div. II.

Project Progress & News

A few highlights are mentioned here:

2008-040-1-200 [Terminology Guidelines and Database Issues for Topology Representations in Coordination Networks, Metal-Organic Frameworks](#)

An article discussing some of the issues was published in the ACS journal *Crystal Growth & Design*, 2018. [Deconstruction of Crystalline Networks into Underlying Nets: Relevance for Terminology Guidelines and Crystallographic Databases.](#)

2012-045-1-800 [Nomenclature for polyhedral boranes and related compounds](#) [with Div. VIII]

The project considers stoichiometric and structural nomenclature (including heteroatom and metal-atom subrogation, and substitution of hydrogen), conjoined-cage species, supra-icosahedral systems and sub-icosahedral non-standard structures. The work addresses contentious problems in boron nomenclature that have been around for a long time. [The recommendations in PAC are under review by the public.](#)

2017-014-2-200 [IUPAC/IUPAP joint working group to examine the 1991 criteria used to verify claims for the discovery of new elements](#) is under div. II jurisdiction, but composed of nuclear scientists. Chair [Sigurd Hofmann](#). IUPAC and [IUPAP](#) presidents, the 2017 IUPAC div II DP and VDP, and [The Commission on Nuclear Physics \(C12\)](#) chair, have also worked on "IUPAC and IUPAP Procedures for Validating Claims for the Discovery of New Elements and Naming those Elements". [Both documents are under public review in PAC.](#)

2007-038-3-200 (also related to 2014-024-1-200) The IUPAC Periodic Table of the Elements and Isotopes (IPTEI) was created to familiarize students, teachers, and non-professionals with the existence and importance of isotopes of the chemical elements. This and much related material, are described in the substantial (entire issue 12, 2018) PAC article: [IUPAC Periodic Table of the Elements and Isotopes \(IPTEI\) for the Education Community \(IUPAC Technical Report\)](#)

New Projects

2018-030-1 **Toward a comprehensive definition of valence** Valence is the ability of an atom to bond. In English, valence appears in several different quantitative connotations, besides composed terms like covalence, bond valence, and valence bond. For a numerical parameter, existence of alternative values due to differing perceptions is undesirable and obscures communication. In 2016 the division discussed whether a comprehensive definition of valence can be formulated, with a task group that would include representatives of Div. I, III and of the CCE. This project has been reviewed and revised, and we expect formal approval in the very beginning of 2019. Chair is Pavel Karen.

Division members in the News

A [virtual issue of the ACS journal Chemistry of Materials](#) was dedicated to Division secretary Markku Leskelä.

Juris Meija appeared on the [2018 "power list" of The Analytical Scientist](#).

The new popular science book [The Rhubarb Connection](#) by Lars Öhrström and Jacques Covès was [reviewed in Chemistry World](#).

Division II Elections for 2020-2021

Dan Rabinovich chairs the nominating committee.

IUPAC Endorsed Conferences

[43rd International Conference on Coordination Chemistry](#), was held in Sendai with the total number of participants being 2500. [Japan Society of Coordination Chemistry](#) and Young Coordination Chemist's Association of Japan where active in the organization.



Japanese Sake board breaking ceremony at the ICCC 2018.

[33rd Latin-American Congress of Chemistry and X Congress of Chemical Sciences](#) in Havana, Cuba.

Jorge Colón and Javier Garcia Martinez participated. Discussions on increasing chemical research and education collaborations in the Caribbean and with Latin-America.

[The 13th Solid State Chemistry conference was held in Pardubice, the Czech Republic.](#) A selection of Invited and Key-note papers of this conference will appear in the special issue of PAC.

Upcoming meetings are for example:

["Setting their Table" – International Symposium on Women and the Periodic Table of Elements](#)

[Mendeleev 150: 4th International Conference on the Periodic Table endorsed by IUPAC](#)

[6th International Conference on the Chemistry and Physics of the Transactinide Elements](#)

**Membership of the Inorganic Chemistry Division Committee
2018-2019**

Name	Status	Term	NAO
Prof. Lars Öhrström	TM-President	2018-2019	Sweden
Prof. Jan Reedijk	TM-Past President	2018-2019	Netherlands
Dr. Javier Garcia Martinez	TM-Vice President	2018-2019	Spain
Prof. Markku Leskelä	TM-Secretary	2012-2019	Finland
Prof. Xiangkun Zhu	TM	2018-2019	China/Beijing
Prof. Lidia Armelao	TM	2016-2019	Italy
Prof. Miki Hasegawa	TM	2018-2019	Japan
Prof. Pavel Karen	TM	2016-2019	Norway
Prof. Milan Drabik	TM	2018-2019	Slovakia
Prof. Robin Macaluso	TM	2018-2019	USA
Prof. Annie Powell	AM	2018-2019	Germany
Prof. Farina Abdul Aziz	AM	2016-2019	Malaysia
Prof. Jorge Colón	AM	2016-2019	Puerto Rico
Prof. Thomas Walczyk	AM	2018-2019	Switzerland
Dr. Ladda Meesuk	AM	2016-2019	Thailand
Prof. Daniel Rabinovich	AM	2018-2019	USA
Prof. Natasha S Trendafilova	NR	2018-2019	Bulgaria
Prof. Vladimir Stilinović	NR	2018-2019	Croatia
Prof. Philippe Knauth	NR	2016-2019	France
Prof. Ken Sakai	NR	2018-2019	Japan
Prof. Mi Hee Lim	NR	2018-2019	Korea
Prof. Pawel J Kulesza	NR	2018-2019	Poland
Prof. João D Galamba Correia	NR	2016-2019	Portugal
Prof. Mayoro Diop	NR	2016-2019	Senegal
Prof. Onder Metin	NR	2018-2019	Turkey
Prof. Jeffery Leigh	NR	2016-2019	United Kingdom
	10 TMs, 6 AMs, 10 NRs		

Young Observers at the GA in Sao Paulo 2017
Javier Vela (USA)

Emeritus members on the mailing list:

Dr. Norman E. Holden, United States

Prof. Kazuyuki Tatsumi, Japan (past div II president, past IUPAC president)

Prof. Robert (Bob) Loss, Australia (past div II president)