



IUPAC

International Union of Pure and Applied Chemistry

Inorganic Chemistry Division (II) Newsletter 2013_2

Editors Note: Below you will find the 2013-2 Newsletter; it was compiled thanks to your kindness to send materials. So keep sending your items, including pictures, or suggested topics for future issues, preferable via email to ohrstrom@chalmers.se. I can handle most formats of attachments.

Kindest regards, Lars Öhrström.

Division II Members 2012-2013

President: [Loss, Robert D.](#), **Vice President:** [Reedijk, Jan](#); **Secretary:** [Leskelä, Markku](#);
Titular members: [Mathur, Sanjay](#); [Drabik, Milan](#); [Sakai, Ken](#); [Holden, Norman E.](#); [Öhrström, Lars R.](#);
[Karen, Pavel](#); [Tshuva, Edit Y.](#)

Associate members: [Ding, Tiping](#), [Garcia-Martinez, Javier](#), [Buchweishaija, Joseph](#);
[Rabinovich, Daniel](#); [Vannier, Rose-Noelle](#); [Kiliç, Adem](#);

National representatives: [Abdul Aziz, Farina](#); [Trendafilova, Natasha](#); [Prugovečki, Biserka](#);
[Chandrasekhar, V.](#); [Youngme, Sujittra](#); [Toma, Henrique](#); [Ali Saqib](#).

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

[Subcommittee on Isotopic Abundance Measurements](#)

[Interdivisional Subcommittee on Materials Chemistry](#)

[Commission on Isotopic Abundance and Atomic Weights](#)

[Stable Isotope Reference Material Assessment](#)

Istanbul meeting

Division II had a 1½ day session during the 47th IUPAC General Assembly. Among notable items were a joint meeting with Division VIII (Nomenclature) leading to Div II representation on two Div VIII projects. The two divisions foresee more such joint efforts.



From left to right: *Daniel Rabinovich, Milan Drábik, Adem Kiliç, Norman Holden, Markku Leskelä, Michael Wieser, Thomas Walczyk, Javier García-Martinez, Ken Sakai, Duangsamorn Morawong, Udomphan Kemawadee, Ladda Meesuk, Robert Loss, Robin Macalusco, Lars Öhrström, Jan Reedijk, Brian A. Korgel*

Scheduled 2014 Meeting of Division II.

A Division Committee meeting has been scheduled for July 24-25 in Singapore. The meeting will be hosted by newly elected titular member Thomas Walczyk. All members (TM and AM) and National Representatives have received the announcement in a separate message.

Project Planning and Progress News

The Commission on Atomic Weights and Isotopic Abundances (chair Willi Brand) issued a press release with the [U.S. Geological Survey](#) (T. Coplan) that was widely cited in the media, i.e. in the UK daily The Telegraph: The standard atomic weights of molybdenum, cadmium, selenium, and thorium have been changed. In addition, the standard atomic weights of 15 elements have been revised based on the new assessment of their atomic masses by International Union of Pure and Applied Physics. See:

http://www.usgs.gov/newsroom/article.asp?ID=3700#_UkQVb2TthXc

<http://www.telegraph.co.uk/science/science-news/10333341/The-Periodic-Table-puts-on-weight.html>

The MOF project (chair Lars Öhrström) has published its recommendations in the August issue of *PAC*, and a themed issue based on the 2012 Stockholm symposium was simultaneously published in OA mode by *Zeitschrift für Kristallographie*, see:

<http://www.iupac.org/publications/pac/85/8/1715/>

<http://www.oldenbourg-link.com/toc/zkri/228/7>

Two new elements: flerovium (114) and livermorium (116).

The division advises the IUPAC bureau on names and symbols suggested for new elements by the discoverers assigned by the IUPAC/IUPAP joint committee that reviews and approves such claims. The division approved the suggestions by the Russian and US teams (element 114 – flerovium

(Fl) in honor of the Flerov Laboratory of Nuclear Reactions (JINR) and element 116 – livermorium (Lv) in honor of the Livermore National laboratory). The only relevant public objection to the propositions for the new elements was that the symbol "Fl" for flerovium had some earlier use as symbol for fluorine. This was, however, found to be a very rare 19th century usage predating IUPAC and indeed the periodic table. Fluorine appears as "F" in Mendeleev's 1869 original periodic table and Berzelius also used F. As a curiosity we can note that Ma was used for masurium during its short lived existence, reusing Berzelius' symbol for manganese, and we currently use Po for polonium recycling Berzelius' symbol for potassium.

Corroborating evidence for element 115.

Very recently an international team (Sweden, Germany, USA, UK, Japan, Norway and Switzerland) announced new evidence for element 115 (D. Rudolph *et al.* *Spectroscopy of Element 115 Decay Chains*, Phys. Rev. Lett. 111, 112502). The IUPAC/IUPAP joint committee will examine these new data and issue a public report. The researchers awarded the priority will then propose a name and symbol to IUPAC and it will be de duty of division II to either accept or reject this suggestion. It is important to note that *only the discoverers* can propose a name, our division can only recommend acceptance or rejection, not make any suggestions whatsoever. (W. H. Koppenol, [Naming of new elements \(IUPAC Recommendations 2002\)](#), *Pure Appl. Chem.* **2001**, 74 (5), 787–791.)

Norman Holden retires from IUPAC activities

Long standing division member and 1979-1983 chair of the Commission on Atomic Weights, Norman Holden, Brookhaven National Laboratory, USA, did his last IUPAC GA this year. The division thanks him for his outstanding contributions and he is here pictured in front of one of his legacies, the periodic table of the isotopes.



Thanks to other former Division members

We thank the following NRs who are leaving after serving the division well: Prof. Henrique E. Toma, Brazil, Prof. Sujitra Youngme, Thailand, Prof. Ali Saquib, Pakistan.

Meetings, Events and IUPAC Sponsored Conferences

The 24th International Conference on Coordination & Bioinorganic Chemistry (24th ICCBiC) saw 135 scientists from 26 countries convene at Smolenice Castle, Slovak Republic, June 2nd – June 7th 2013. During the conference 22 plenary lectures, 60 section lectures and 43 posters

was been presented including the "Young Scientists Session", with 48 oral presentations."

Conference announcements:

The 11th Conference on Solid State Chemistry 6-11 July 2014 will be held in Trenčianske Teplice, a small spa town just 135 km from the Slovak capital Bratislava. Please see:

<http://www.ssc2014.sav.sk/>

Division liaison with Interdivisional Subcommittee on Materials Chemistry (ISMC)

Professor Brian A. Korgel was a young observer to the 47th GA in Istanbul and took part in the Div. II activities. He has agreed to be a liaison with the ISMC and to



continue to work with division II. His research group focuses on investigating size-tunable material properties, and the self-assembly and fabrication of nanostructures. He is Director, Industry/University Cooperative Research Center for Next Generation Photovoltaics: McKetta Department of Chemical Engineering at The University of Texas at Austin

Division members international outreach activities

Javier García-Martinez has edited "Nano-technology for the Energy Challenge, 2nd Edition" a book aimed at specialists as well as an interdisciplinary audience. In Lars Öhrström's popular science book "The Last Alchemist in Paris" the chapters move around the globe explaining and promoting chemistry.

J. García-Martinez, "Nanotechnology for the Energy Challenge, 2nd Edition", Wiley-VCH, Weinheim, 2013, <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-3527333800.html>

L. Öhrström "The Last Alchemist in Paris & other curious tales from Chemistry", Oxford University Press, 2013. <http://ukcatalogue.oup.com/product/9780199661091.do>

Duties of Division Members

Starting 2012 all division member duties (TM&AM) have been made visible in a matrix table. This was prepared on the request of the newly elected members. A [welcome package](#) for the new members has been updated and was distributed to all newly elected members (2012-2013). (*Copies are still available for others, if wished so*).

The division now has an entry in the English language wikipedia.

https://en.wikipedia.org/wiki/IUPAC_Inorganic_Chemistry_Division

Membership of Inorganic Chemistry Division Committee 2014-2015

Name	Status	Term	NAO
Prof. Jan Reedijk	TM – President	2014-2017	Netherlands
Prof. Lars Öhrström	TM – Vice President	2014-2017	Sweden
Prof. Markku Leskelä	TM – Secretary	2012-2015	Finland
Prof. Robert D. Loss	TM – Past President	2014-2015	Australia
Prof. Tiping Ding	TM	2014-2015	China/Beijing
Dr. Milan Drábik	TM-2 nd term	2014-2015	Slovakia
Prof. Daniel Rabinovich	TM	2014-2015	United States
Prof. Edit Y. Tshuva	TM-2 nd term	2014-2015	Israel
Prof. Thomas R. Walczyk	TM	2014-2015	Switzerland
Prof. Michael Wieser	TM	2014-2015	Canada
Dr. Javier García-Martínez	AM-2 nd term	2014-2015	Spain
Prof. Pavel Karen	AM	2014-2015	Norway
Dr. Adem Kiliç	AM-2 nd term	2014-2015	Turkey
Prof. Rose-Nöelle Vannier	AM-2 nd term	2014-2015	France
Dr. Joseph Buchweishaija	AM-2 nd term	2014-2015	Tanzania
Prof. Ken Sakai	AM	2014-2015	Japan
Prof. Lidia Armaleo	NR	2014-2015	Italy
Prof. Yang F. Abdul Aziz	NR-2 nd term	2014-2015	Malaysia
Prof. Amin Badshah	NR	2014-2015	Pakistan
Prof. V. Chandrasekhar	NR-2 nd term	2014-2015	India
Prof. João Galamba	NR	2014-2015	Portugal
Prof. Stepan N. Kalmykov	NR	2014-2015	Russia
Prof. Sanjay Mathur	NR	2014-2015	Germany
Prof. Ladda M. Meesuk	NR	2014-2015	Thailand
Prof. Biserka Prugovečki	NR-2 nd term	2014-2015	Croatia
Prof. Natasha Trendafilova	NR-2 nd term	2014-2015	Bulgaria

10 TMs, 6 AMs, 10 NRs

AM = Associate Member

NR = National Representative

TM = Titular Member

Young observers that attended the division meetings at the last GA

Prof. Brian A. Korgel	YO	United States
Prof. Robin Macalusco	YO	United States
Dr. Duangsamorn Morawong	YO	Thailand
Dr. Juris Meija	YO	Canada
Dr. Udomphan Kemawadee	YO	Thailand
Dr. Lucinda Dudd	YO	UK

Leaving:

Dr. Norman E. Holden, United States

Prof. Henrique E. Toma, Brazil

Prof. Sujittra Youngme, Thailand

Prof. Ali Saquib, Pakistan