

## **Interdivisional Sub-committee on Materials Chemistry (Draft)**

Notes of the meeting held during the 46<sup>th</sup> IUPAC G.A., 10/07/2017, Sheraton WTC, Sao Paulo Brazil, Room D

**Attendees:** Milan Drabik (II), Marrku Leskela (II), Rai Kookana (VI), Joaquim Faria (I), Natalie Stingelin (IV), Michael Hess (IV), Christopher Ober (IV), Vladimir Gubala (VII), Linda Johnston (VII), Clara Magalhães (V), David Shaw (V), Earle Waghorne (V), Ilya Zharov (ISMC), Cora Lind-Kovacs (II), Emma McCabe (II), Leopoldo Suescun (II), John Matson (YO)

### **Executive Summary:**

- 1) The group was updated on the rotation of the chairs. Given the special circumstances of Division I (Physical and Biophysical Chemistry), it was agreed that someone from outside the founding divisions would be suitable.
- 2) The ISMC not only fosters materials chemistry within IUPAC but will also act to catalyse interdivisional activities.
- 3) The MC education website has made great progress, transferred from a University of Utah server to IUPAC.
- 4) An interdivisional speed networking event was held at Sao Paulo as part of the World Chemistry Leadership Meeting (WCLM) and ISMC played a part in that event. Vlad Gubala, the new ISMC chair, also led a YO workshop on proposal writing with Pietro Tundo, lead of ICGCSD.

Ober welcomed all attendees and after brief introductions of those present, gave his personal view of the history of ISMC. It was founded by Divisions I (Physical and Biophysical Chemistry), II (Inorganic Chemistry) and IV (Polymers) to look for areas of interdivisional cooperation. The first chair, Len Interrante, also pushed for an independent budget but was unsuccessful. As an interdivisional sub-committee, ISMC has no budget and instead depends on 1) occasional project related funding from the founding divisions and 2) funding that can be provided by the projects committee for project proposals. At the moment, ISMC only has support for one funded project, the Materials Chemistry Education Website.

Ober presented the agenda: new leadership (Gubala), meetings since Busan, ISMC website and WCLM.

In Busan, all divisions were invited to attend the ISMC meeting, we had good turnout representing 6 divisions, we unveiled a prototype materials chemistry website and we solicited project ideas. We also agreed to hold electronic meetings before Sao Paulo and we held one last November.

**World Chemistry Leadership Meeting:** As a result of discussions at Busan, a goal for ISMC became to hold an interdivisional workshop to aid in identifying the sort of interdivisional, multidisciplinary projects that would be suitable for ISMC. During discussions at the 2016 Bureau meeting in Montreal, when this topic was raised it was suggested that Ober could hold such an event as part of WCLM in Sao Paulo. This seemed like a good idea since ISMC is very interdisciplinary, and knowledge of interdisciplinary activities between different divisions not very strong. Interdisciplinarity became a key theme of WCLM. It also seemed

to be opportunity to combine an interdivisional workshop and Young Observer events in WCLM to support the goals of ISMC. At the same time ICGCSD (Green Chemistry) came into existence and working with ICGCSD became part of WCLM. Over the past year Ober, Garelick, Meyers, Gubala, Tundo, Apoteker, Martinez, Dunne and others have helped make WCLM 2017 possible. The planned events were described and those present were invited to take part in WCLM events.

The program for Sao Paulo evolved to consist of (1) a welcome reception for the Young Observers (YOs) preceded by a speed networking event in which divisions and committees talked with Young Observers to share activities of IUPAC. ISMC was represented by Ober and Gubala at the speed networking event. Others who took part in the event felt it was very successful. (2) YOs also took part in an IUPAC proposal writing workshop. And finally (3) the plenary session consisted of 3 excellent talks by Alejandra Palermo (RSC), Marcos de Marchi (President, Brazilian Chemical Industry, ABIQUIM) and Natalie Lafranzo (ACS Younger Chemists Committee). This was followed by short presentations by Christine Dunne on the International Young Chemists Network (IYCN) and Mary Garson on IUPAC 100 and a panel discussion on these presentations.

Finally the YOs presented their proposals for projects, listed below:

1. A world without chemistry is a world without... (Christine Dunne)
2. Periodic table of chemists around the world (Christine Dunne)
3. Maximizing and modernizing IUPAC outreach (Marc Reid)
4. Symposium: Introduction to Intellectual property for younger chemists (Jens Breffke)
5. Glossary of terms for phototherapy (Francesca Giuntini)
6. Current and emerging sensing tools for the detection of illicit drugs at crime scenes (Raychelle Burks)

These proposals were commented on by the panel of speakers and the meeting was wrapped up.

ISMC Website: The website was created by Zharov who was present. It is built around technology areas where materials determine properties and performance. Since the Busan meeting, a test website was migrated to the IUPAC server and is now at <https://iupac.org/materialschemistryedu/> More input is needed on presentation and content.

Suggested improvements to the website from discussion:

- include pictures and head-lines, with links (Vladimir)
- relate to wikipedia (not assigned)
- follow some features of web site of Div. IV (Chris)
- list of (and links to) Materials Chemistry-related IUPAC projects (Milan)
- contacts (suggested by several participants)

New projects:

ISMC has not been especially successful in initiating new projects; however, at this meeting

there was renewed energy to move forward on several fronts. It might be timely to submit proposals in the next few months to tap into biennium ending funding.

There seems to be interest in:

- Thermodynamics of polymers (div I, IV, V?)
- Polymers as ocean waste (div IV, VI, VII?)
- Materials Chemistry website (Zharov)
- Using the Materials Chemistry website for housing crystallographic data generated by a multidivisional team
- Materials and the environment/human health (Gubala)
- IUPAC 100 (Ober); referring to a student competition with a possible title (What is cool about chemistry in materials?)

Finally, there was a proposal by Ober to contact the Committee on Chemical Funding (CCRF) to reactivate funding calls and see if there would be interest in a funding call on sustainable materials.

Following these discussions an election was held. Vladimir Gubala was elected to lead ISMC starting in January 2017. Ober will become ISMC secretary until a replacement can be found. Following the election there was an informal face-to-face meeting (Milan, Vladimir, Markku) with Ján Reedijk (President of Div. II) - 10/07/2017 afternoon.