

**Minutes of the Meeting of
IUPAC Division III Organic and Biomolecular Chemistry**

Saturday, July 8, 2017 3.00 pm – 4.20 pm

49th IUPAC General Assembly

Sheraton Sao Paulo WTC (Room VOLPI), São Paulo, Brazil

The meeting was chaired by Division III President, Margaret Brimble who welcomed all participants and invited them to introduce themselves. The following members were present:

Margaret Brimble, Division President; e-mail: m.brimble@auckland.ac.nz

Amélia P. Rauter, Secretary; e-mail: aprauter@fc.ul.pt

Francesco Nicotra, Vice-President; e-mail: francesco.nicotra@unimib.it

Mary Garson, Past-President; e-mail: m.garson@uq.edu.au

Nikolay Nifantiev, Titular Member, Chair S/C Organic Synthesis; e-mail: nen@ioc.ac.ru

Pher Andersson, Titular Member; e-mail: phera@su.se

Jon Clardy, Titular Member; e-mail: jon_clardy@hms.harvard.edu

Ganesh Pandey, Titular Member; e-mail: gp.pandey@cbmr.res

Janet Scott, Titular Member; e-mail: j.l.scott@bath.ac.uk

Miroslav Ludwig, National Representative; e-mail: miroslav.ludwig@upce.cz

Nestor Carballeira, Associate Member; e-mail: nestor.carballeira1@upr.edu

Silvia Braslavsky; Acting Chair Photochemistry S/C; e-mail: silvia.braslavsky@cec.mpg.de

Krishna Ganesh; e-mail: kn.ganesh@iiserpune.ac.in

Einar Uggerud; e-mail: einar.uggerud@kjemi.uio.no

Dean Tantillo; Young Observer; e-mail: djtantillo@ucdavis.edu

Jeanne Bolliger, Young Observer; e-mail: Jeanne.bolliger@okstate.edu

Juan Aponte-Santini, Young Observer; e-mail: juankyacs@gmail.com

Filip Bures; e-mail: filip.bures@uper.cz

Francesca Giuntini; e-mail: f.giuntini@ljmu.ac.uk

Laurean Ilies; e-mail: laur@chem.s.u-tokyo.ac.jp

Marc Reid; e-mail: marc.reid.100@strath.ac.uk

1. The President, Margaret Brimble welcome the participants and invited participants to register for the Division III dinner.

Members from the Committee on Chemistry Education addressed Division III seeking collaboration through joint projects by adding educational insights into projects, contributing to the project budget or helping with the dissemination of project results. The Committee members also stated that initiation of chemical education activities using workshops to encourage young ambassadors for chemistry, and promote motivation for chemistry among younger people would be welcome.

Richard Hartshorn, IUPAC Secretary General addressed the meeting and offered to answer any questions as Secretary General of IUPAC. He asked for feedback as to how IUPAC is operating. Francesco Nicotra mentioned the problem of dissemination of project results and the missed opportunities due to IUPAC not interacting optimally with chemical societies.

Richard Hartshorn informed the meeting that all IUPAC projects now have a webpage, where project results are shown that can be disseminated to national adhering organisations and chemical societies. He confirmed that IUPAC is engaged in publicizing IUPAC project results that will be centralized by IUPAC. He will ask for someone from each Division to take responsibility for up-dating project results for the IUPAC website.

Richard Hartshorn also stated that much progress has been made with obtaining nominations for officer positions from the Chemical Societies, and many more nominations were received this year. He thanked everyone for the opportunity to participate in the IUPAC Division III meeting.

2. No additional agenda items were requested.
3. The minutes of the Busan meeting in 2015 were approved.
4. There were no matters arising from the minutes.
5. The reports from the Division President, Margaret Brimble that were sent with the Agenda were noted and discussed briefly.

6. Reports from the sub-committees:

- i. *S/C on Green Chemistry*: Margaret Brimble informed the meeting that the members of this S/C have decided to create an Interdivisional Committee on Green Chemistry (ICGC) that has been approved by the Bureau hence the S/C Green Chemistry does not exist anymore. The new ICGC will eventually have its own operating budget however in the short term projects will still be handled by Division III.
- ii. *S/C on Organic Synthesis*: Nikolay Nifantiev reported on the very successful conferences, namely the 21st International Conference on Phosphorus Chemistry (ICPC 2016), in Kazan Russia, the XXVIII International Carbohydrate Symposium (ICS2016) held in New Orleans, and the XX

Mendeleev Congress of General and Applied Chemistry. Two special PAC issues are anticipated in 2017 that are dedicated to these meetings. He also informed the meeting that the next ICS meeting will be held in 2018 in Lisbon chaired by Amelia Rauter and the subsequent ICS meeting in 2020 will be held in China chaired by Biao Yu.

Nikolay Nifantiev also reported on discussions to cluster the three meetings ISCO, ICS and International Conference on Organometallic Chemistry in 2020, but this has not been decided yet. He also mentioned that several ideas for projects were generated during the recent meeting of the S/C on Organic Synthesis.

- iii. *S/C Photochemistry*: Margaret Brimble thanked Sylvia Braslavsky for her excellent leadership of the S/C activities that included engaging with three international photochemical associations, compiling a glossary of photochemical terms projects and seeking other projects from the S/C meeting. She also informed that the IUPAC Symposium of Photochemistry is organized every two years, normally in Europe, but the last one was in South Korea and the next one will be in Dublin. The Photochemistry Conference is another event sponsored by IUPAC and the next one will be held in Strasburg. The last Photochemistry Symposium was a tremendous success. In 2015 the History of Photochemistry was published in Pure and Applied Chemistry.

Mary Garson described Sylvia as a wonderful mentor and she acknowledged her for her valuable contributions to Division III and to the S/C on Photochemistry.

- iv. The former Chair of the *Structural and Mechanistic Organic Chemistry S/C*, Einar Uggerud informed the meeting that the next Chair was Ian Williams, Bath University, UK.
- v. *S/C on Biotechnology*: Francesco Nicotra reported on this S/C because the current Chair, Fengwu Bai was unable to attend the meeting. The IBS conference in Melbourne had more than 2000 attendees with a strong contribution of chemistry in glycoscience and vaccines. The next IBS will be held in Montreal in 2018 on August 11-16. Glasgow may be the venue for the subsequent meeting, however this has not been confirmed yet. Japan was suggested as a possible location for the meeting in 2020 or 2022.
- vi. *Biomolecular S/C*: The Biomolecular S/C will be meeting during the ISBOC11 conference in Konstanz in September.

Margaret Brimble asked for items from all of the sub-committees to put on the Division III website.

7. Divisional Membership and Outcome of Recent Ballot.

Margaret Brimble explained how members of Division III are elected. National Adhering Organisations propose potential members, a Division III nomination committee also proposes names, and finally an election takes place; the electorate for the election includes all Division members, including members of

Sub-Committees. The results for the Membership of Division III for the 2018-2019 biennium are appended below.

Mary Garson commented that the next biennium will be very important and suggested that planning for the next election process should begin shortly. Some names of potential candidates had already been suggested by Nikolay Nifantiev. Mary Garson suggested that involvement in a Division III subcommittee is an initial step which makes it easier for people to be active within the Division, and thereby considered for Division III membership in a future biennium. Margaret Brimble congratulated the people that had been elected as members of Division III for the next biennium. Sylvia Braslavsky said that IUPAC encourages any chemist in the world to propose a project, that will then come to a Division or Division S/C and that this is a good way to initially engage with IUPAC Division III.

8. Discussion of Existing Project Proposals and Dissemination of Results; refer to p 25-33 of the Agenda items.

Mary Garson chairs a committee who are planning how to celebrate 100 years of IUPAC in 2019, the year of celebration of 150 years of Mendeleev and the Periodic Table. The celebration of 100 years of IUPAC will be held in Paris, France. Mary Garson asked Division III to encourage members to organize events in their own country. She introduced a number of IUPAC100 projects as of June 2017 for the IUPAC 100 years celebration. The draft project titles are listed below but they have not been finalized yet:

- i. Women celebrating a chemical moment in time – Mary Garson
- ii. IUPAC 100 for Africa - Postgraduate summer school for students – Pietro Tundo
- iii. Creating a common language for chemistry – a visual presentation of how IUPAC made history.
- iv. IUPAC 100 Periodic Table competition - Jan Apotheker, Juris Meija
- v. Providing essential tools for the next century - Laura McConnell

Mary Garson stated that the IUPAC100 Celebrations will provide an unique opportunity for IUPAC and members of Division III to highlight the importance of chemistry in an international setting, and to preview the role of chemistry in the next 100 years, notably in the era of “big data”

The meeting adjourned at 16.20 h to reconvene on the 9th of July at 10.00 h.

A Division III dinner was held at a local restaurant in the evening.

**Minutes of the Meeting of
IUPAC Division III Organic and Biomolecular Chemistry**

Sunday, July 9, 2017 10.00 am – 12.02 pm

49th IUPAC General Assembly

Sheraton Sao Paulo WTC (Room VOLPI), São Paulo, Brazil

The President welcome the participants and asked them to introduce themselves, in particular those that did not participate in the meeting the previous day.

The participants are listed below:

Margaret Brimble, Division President; e-mail: m.brimble@auckland.ac.nz

Amélia P. Rauter, Secretary; e-mail: aprauter@fc.ul.pt

Francesco Nicotra, Vice-President; e-mail: francesco.nicotra@unimib.it

Mary Garson, Past-President; e-mail: m.garson@uq.edu.au

Nikolay Nifantiev, Titular Member, Chair Synthesis S/C; e-mail: nen@ioc.ac.ru

Jon Clardy, Titular Member; e-mail: jon_clardy@hms.harvard.edu

Pher Andersson, Titular member; e-mail: phera@su.se

Ganesh Pandey, Titular Member; e-mail: gp.pandey@cbmr.res

Janet Scott, Titular Member; e-mail: j.l.scott@bath.ac.uk

Miroslav Ludwig; National Representative; e-mail: miroslav.ludwig@upce.cz

Einar Uggerud; National Representative; e-mail: einar.uggerud@kjemi.uio.no

Silvia Braslavsky; e-mail: silvia.braslavsky@cec.mpg.de

Jeanne Bolliger, Young Observer; e-mail: Jeanne.bolliger@okstate.edu

Filip Bures; e-mail: filip.bures@uper.cz

Laurean Ilies; e-mail: laur@chem.s.u-tokyo.ac.jp

The meeting reconvened starting with item 9.

9. Discussion of Existing Projects and Dissemination of Results.

Margaret Brimble presented the projects funded in 2016-2017:

- i. Storage of NMR data (#2016-023-2-300; Garson)

- ii. Database of composition of natural organic matter and humic substances (#2016-015-2-600; Perminova)
- iii. Categorizing chalcogen, pnictogen and tetrel bonds ([#2016-001-2-300](#); Resnati)

Under review:

- iv. Postgraduate summer school on green chemistry (#2017-006-2-041; Tundo)

Regarding the latter some members were doubtful as to whether this project was able to be funded, since conferences cannot be sponsored. Margaret Brimble asked whether Division III should support this project. Sylvia Braslavsky said that IUPAC does provide some funding to conference organizers to bring students to conferences hence the project should not be supported by Division funding. Members agreed that this policy should be discussed with other Divisions for consistency across Divisions.

The representative of the Interdivisional Committee on Green Chemistry informed the meeting that other Divisions have already accepted to support this project and Margaret Brimble suggested that Division III could also support the project by inviting young chemists from developing countries to attend the meeting. It was agreed that Division III would contribute \$2000 to this project.

Reports on all current projects were provided. Mary Garson informed the meeting that she will be able to report on the advances in the NMR project after a meeting with other members involved. The project of Saverio Florio ([#2015-027-1-300](#)) was discussed and Amelia Rauter presented the advances made in the Carbohydrate Nomenclature project ([#2012-039-2-800](#)), with the carbohydrate part being almost ready, and the contribution on glycoprotein nomenclature will soon be discussed by the task group members, whilst the glycolipids and bioinformatics sections are not ready yet.

Progress on the ageing project ([2013-054-2-300](#)) were reported, with the website ready for access at <http://nutriageing.fc.ul.pt/>

Sylvia Braslavsky reported that the measurements of photoluminescence quantum yields have been carried out for the project (#2013-040-1 (Brouwer) and the task Chair will compile the written report.

The project chaired by Silvio Vaz (#2013-036-2-300) will be sent to the Interdivisional Committee on Green Chemistry for a final decision as to whether it should be published.

Regarding project #2007-025-1-300, Lilliana Mammino informed the meeting that some participants did not write the required chapters and were not able to provide their expected contribution. The manuscript was submitted in January 2017 and the final document will be published before the end of the year. Margaret Brimble reminded the meeting that \$2000 is still available for this project.

The project on the IUPAC Glossary of Physical Organic chemistry ([#2009-002-1-300](#); Perrin) will be ready by 2019.

The project chaired by Michael Blackburn ([#2013-039-2-300](#)) and others did not need to be discussed as it was progressing well, and a technical report has been submitted to *Pure Appl. Chem.*

Margaret Brimble advised that the money allocated to projects should be spent in a timely manner and that projects should not be kept open for a long time without budget modification.

Meanwhile at 11h30, the Division III meeting was visited by Osman Achmatowicz and Risto Latinen, the Secretary of Division VIII, that took the floor and explained the activities of Division VIII. These colleagues informed Division III about the webpage of Gerry Moss, asking members to get in contact with him if they find errors in the Blue Book, so that these can be for future correction. They explained the projects that are carried out in Division VIII, and the associated problems. Working with nomenclature requires cross-over meetings with those working with the substances concerned, particularly those working in organic and biomolecular chemistry. In response to a question from Pher Andersson, it was clarified that Division VIII also deals with stereochemical issues.

9. Discussion of New Project Proposals.

The following new projects were suggested:

- i. Bridging Ethnic Food Cultures through Chemistry
Food cultures from Angola, China, India, Italy, Japan, Portugal and Russia will be explored and reported on the nutri-ageing website.
Task group members: Rauter (Chair); Ganesh, Nefantiev, Nicotra, Tana
- ii. Impacting Biosciences with Chemistry
Task group members: Ganesh (Chair); Nicotra; Rauter
- iii. Understanding the Applications of Statistics in Organic Chemistry (Chair: Reid)
- iv. Stereochemical Representations of Axial Chirality in Compounds containing Chiral sp^3 Carbons. (1,4-disubstituted cyclohexanes, spirocycles etc.) (Chair: Pher Andersson)
- v. Guidelines for Sustainable Catalysis as a Technical Report proposed by Young Observer Jeanne Bolliger. Margaret Brimble asked Janet Scott to mentor Jeanne to help her prepare a project proposal.

10. Budget

Margaret Brimble reported that Division III still had funds remaining to be allocated for projects. The operating budget for the 2016-2017 biennium was \$14,370 and this would be spent once members had submitted travel claims for attendance at the Division III meeting in Sao Paulo. \$2000 was allocated to the Biomolecular S/C to support their meeting being held during ISBOC11 in Konstanz in September. The project budget for the 2016-2017 biennium was \$33,530 of which \$13,030 remained. Margaret also reported that the Division III budget would be reduced by approximately 5% for the 2018-2019 biennium as budgets for all Divisions were

trimmed to provide funds for the new Interdivisional Committee on Green Chemistry.

11. Date and Venue for Next Meeting.

It was decided that the next Division III meeting will be held in Paris in 2019. A meeting could also take place in 2018 during the ICOS meeting in Florence during September 16-21.

With no other business, the meeting was closed at 12. 02 pm

Minutes prepared by Amelia Rauter, Margaret Brimble and Mary Garson

MEMBERSHIP OF IUPAC DIVISION III (2018-2019)

		<i>Confirmed/election end date</i>	<i>Updated archive membership</i>
Titular Members			
Francesco Nicotra <i>President</i>	Italy	Transition from DVP to DP	AM300(02-05); TM300(12-15); DVP300(16-17); <i>DP(18-19)</i>
Margaret Brimble <i>Past President</i>	New Zealand	Transition from DP to DPP	TM300(10-13); SCC301(12-15); DR027_III_(12-15); DVP300(14-15); DP300(16-17); <i>DPP300(18-19)</i>
Nikolay Nifantiev <i>Vice President</i>	Italy	Transition from TM to DVP	AM300(08-11); TM300(14-17); <i>DVP(18-19)</i>
Amelia Rauter <i>Secretary</i>	Portugal	Continue as Secretary	NR300(02-05; 08-09); AM300(14-15); DS300(16-17); <i>DS300(18-19)</i>
Pher Andersson	Sweden	9 July 2017	TM300(16-17); <i>TM300(18-19)</i>
Jon Clardy	USA	9 July 2017	TM300(16-17); <i>TM300(18-19)</i>
Andreas Marx	Germany	9 July 2017	
Ganesh Pandey	India	9 July 2017	TM300(16-17); <i>TM300(18-19)</i>
Janet Scott	UK	9 July 2017	TM300(16-17); <i>TM300(18-19)</i>
Zhen Xi	China	9 July 2017	AM300(14-15); TM300(16-17); <i>TM300(18-19)</i>
Associate Members			
Fengwu Bai	China	9 July 2017	SCC(16-17)
Vanderlan Bolzani	Brazil	9 July 2017	AM300(16-17)

Thomas Carell	Germany	9 July 2017	TM300(12-15); TM300(16-17)
Jason Harper	Australia	9 July 2017	
Lilliana Mammino	South Africa	9 July 2017	NR300(16-17)
Inje Shin	Korea	9 July 2017	NR300(16-17)
National Representatives			
Mohammed Hegazy	Egypt	9 July 2017	
John Honek	Canada	9 July 2017	
Shang-Cheng Hung	China/Taipei	9 July 2017	
Slavomir Jarosz	Poland	9 July 2017	
Wahab Khan	Bangladesh	9 July 2017	
Hamdullah Kilic	Turkey	9 July 2017	
Koop Lammertsma	Netherlands	9 July 2017	NR300(16-17)
Priyani Paranagama	Sri Lanka	9 July 2017	
Einar Uggerud	Norway	9 July 2017	AM300(16-17)
Makato Yamashita	Japan	9 July 2017	