

IUPAC Division III – Organic and Biomolecular Chemistry Meeting Minutes

Busan, South Korea – August 8th 2015 – 17.00 h.
and August 9th 2015 – 08.35 h.
BEXCO Conference Center; Room 215

1. Welcome and Apologies

The President of the Division III of IUPAC, Professor Mary Garson chaired the meetings on both the days and welcomed the committee members, guests and the Young Observers. She conveyed apologies from members who could not come to Busan and attend the meeting. The attendees introduced themselves informing their names, affiliations and research interests. As the Secretary of the Division, Professor Amelia Rauter was unable to attend the meeting, Professor Virinder Parmar acted as the Secretary of this meeting and recorded the minutes.

PRESENT on 08/08/2015: Divisional members, special invitees and sub-committee representatives and national representatives:

Mary Garson (MG, TM, Australia, President Division III)
Virinder S Parmar (VSP, India, Interim Secretary)
Francesco Nicotra (FN, TM, Italy)
Margaret Brimble (MB, TM, New Zealand)
Pietro Tundo (PT, Chair S/C Green Chemistry, Italy)
George Michael Blackburn (GMB, TM, UK)
Nikolai Nifantiev (NN, TM, Russia)
Miroslav Ludwig (ML, NR, Czech Republic)
Zhen Xi (ZX, AM, China)
Jeanne L. Bolliger (JLB, Young Observer, UK)
Y. Jin (YJ, Young Observer, UK)
Jay O. Oghifo (JOO, Young Observer, Nigeria)
Gloria U. Obuzor (GUO, Young Observer, Nigeria)
Sundaig O. Okeniyi (SOO, Young Observer, Nigeria)
Joo Young Jeong (JYJ, Young Observer, New Zealand)
Mohammed Mosihuzzaman (MM, Bangladesh)
Oleg Demchuk (OD, NR, Poland)
Anna Makgrova (Member S/C Green Chemistry, Russia)
Jyoti Giri (JG, Young Observer, Nepal)
Ramachandra Kandel (RK, Young Observer, Nepal)
Tirayut Vilaivan (TV, NR, Thailand)
Philippe Corvini (PC, Young Observer, Switzerland)
Minoru Isobe (MI, Taiwan)

PRESENT on 09/08/2015: Divisional members, special invitees and sub-committee representatives and national representatives:

Mary Garson (MG, TM, Australia, President Division III)
Virinder Parmar (VP, India, Interim Secretary)
Francesco Nicotra (FN, TM, Italy)

Margaret Brimble (MB, TM, New Zealand)
Pietro Tundo (PT, Chair S/C Green Chemistry, Italy)
George Michael Blackburn (GMB, TM, UK)
Nikolai Nifantiev (NN, TM, Russia)
Miroslav Ludwig (ML, NR, Czech Republic)
Zhen Xi (ZX, AM, China)
Y. Jin (YJ, UK)
Joo Young Jeong (JYJ, New Zealand)
Oleg Demchuk (OD, NR, Poland)
Jyoti Giri (JG, Nepal)
Tirayut Vilaiwan (TV, NR, Thailand)
Biing-Juan Uang (BU, Taiwan)
Minoru Isobe (MI, Taiwan)
Mark Cesa (MC, USA)
Y. T. Tao (YTT, China)
Mukund Chorghade (MC, USA)
G. A. Miana (GAM, Pakistan)

APOLOGIES: Professors Alberto Brandi, Thomas Carell, Axel Griesbeck, Buxing Han, Amal-al-Aboudi, and Amelia Rauter.

2. In response to the request for additional agenda items, none were received.
3. The minutes of the meeting of the Division held in Istanbul, Turkey in August 2013, as presented by MG were proposed to be approved by MB and seconded by FN, and were approved for adoption by the Division members.
4. There were no items of business arising from the minutes
5. The report of the Division President to Council, as circulated already to the members in the agenda papers was presented by Professor Mary Garson and approved by the members of the Division. A copy of the report is attached to these minutes.
6. The reports of the activities of six different subcommittees of the Division during 2014 and 2015 were presented by the respective Chairpersons of the subcommittees, except that of the Photochemistry S/C whose brief report, in the absence of its Chairperson, was presented by its one member present in the Division meeting, Professor Miroslav Ludwig from the Czech Republic. The members unanimously appreciated the activities and functioning of all the subcommittees and thanked the chairpersons and members of these subcommittees for excellent performances. In particular mention was made of superb performance of four subcommittees during these years under the chairmanship of Professors GM Blackburn (Biomolecular Chemistry S/C), Pietro Tundo (Green Chemistry S/C) Margaret Brimble (Organic Chemistry S/C) and Francesco Nicotra (Biotechnology S/C). The members appreciated the dedicated work of these S/Cs Chairpersons in bringing their respective S/Cs to high levels.

The Division President, Professor Mary Garson mentioned that networking of activities between different sub-committees of Division III, e.g. Organic Chemistry and Green Chemistry has been of high level.

7. A review of the membership of S/C was addressed after item 8.
8. The new members of the Division were presented by the President-elect, Professor Margaret Brimble. It was mentioned that Professor Amelia Rauter shall be the Secretary and Professor Francesco Nicotra shall be the Vice-President of the Division for 2016-2017. Elected as Titular Members for 2016-2017 were Professors Pher Andersson (Sweden), Jon Clardy (USA), Ganesh Pandey (India), Janet Scott (UK) and Zhen Xi (China). The 2014-2015 and 2016-2017 membership lists are given on pages 19-20 of these minutes.

After due discussion, it was decided that the replacement of Titular Members should be well spread out over period of time to ensure continuity and knowledge of Divisional procedures and activities. It was recommended that 5 or more Titular Members should not be replaced at any one time.

9. The Division President, Professor Mary Garson presented and reported the status and progress of work in various current and ongoing projects sponsored by the Division (see pages 12-18 of these minutes). The details of some of these projects which were discussed at length during the Division meeting are given below.
 - (i) The project (2008-037-2-300) by Professor Griesbeck, sanctioned in the year 2008 is still incomplete, it was decided to write to him for a progress report.
 - (ii) The project (2009-021-3-300) of Professor Zhang has significant unspent funds.
 - (iii) Professor Margaret Brimble mentioned that the unspent funds in her project (2011-044-1-300) will be used for a meeting in 2015 reviewing the current recommendations.
 - (iv) The project of Professor Silvio Vaz (2013-036-2-300) has encountered some issues with content of the proposed glossary; two new task group members have been co-opted to replace colleagues who stepped down from the project.
 - (v) Professor George Blackburn requested that the completion date of his project (2013-039-2-300) may be extended to December 2015.
 - (vi) There were problems in the reporting of some details of the Projects of Professor Minoru Isobe and Professor Vania Zuin, as pointed out by them. The Division President, Professor Mary Garson mentioned that the discrepancies pointed out by them were as a result of incorrect financial details being provided in June by the Secretariat. The matter had subsequently been resolved.
10. New project proposals: Professor Pietro Tundo advised that three new Projects shall be submitted from the Subcommittee on Green Chemistry, one of which was on ionic liquids (Ken Seddon). Professor Florio (Italy) is applying for funds to support the renewal of his Mediterranean network project (2011-006-2-300). Professor Mary Garson advised that a project critically reviewing the conventions and precision of measurement in the reporting of NMR data was in preparation.
11. The current financial situation of Division III were presented by MG. The members approved that the remaining “operational” funds (~ 10k) could be utilized in providing partial travel support to those members who need funds to meet expenses on attending the Division III meeting and/or the meetings of its S/Cs in Busan. MG advised that six members have so far asked for travel support. It was approved that all these members may be reimbursed air fare expenses towards flights from their place of work to Busan,

and towards hotel and local expenses (on taxis, etc.) for up to three nights (8-10 August) in Busan. It was further approved that those members who travelled from countries within Asia could be reimbursed up to US \$1500, and those who travelled from countries outside Asia could be reimbursed up to US \$2500, on submission of actual receipts along with a claim form.

12. Division brochure and newsletter: It was decided that the publication of the Newsletter of the Division should be revived, Professor Margaret Brimble and Professor Francesco Nicotra were requested to look into this.
13. IUPAC Prizes: The new Guidelines for the CHEMRAWN-IUPAC award in Green Chemistry were presented by Professor Pietro Tundo. These were discussed at length and approved after some modifications. A copy of the document is attached to these minutes (p24).
14. Conferences: The Division President, Professor Mary Garson mentioned the different Conferences/Symposia of the Division held during the years 2014 and 2015 in different Countries (refer to pages 21-23 of these minutes). Particular mention was made of the superb organization of two key meetings of the Division by Professor Yang Ye (ISCNP28/ICOB8) and Professor Krishna Ganesh (ISBOC10).

The Division President, Professor Mary Garson mentioned that seven Symposia/Conferences of the Division are planned to be held during the years 2016 and 2017, two in Australia and one each in India, Italy, Turkey, Germany and Japan. The President further requested the members to widely publicise these meetings in their respective countries.

PT presented details about the 6th IUPAC International Conference on Green Chemistry to be organized by him in Venice, Italy in September 2016, and the Phosagro/Unesco/IUPAC Symposium being organized by him in Busan on 10th August 2015.

A summary of Division III conferences is provided on pages 21-23 of these minutes.

15. Any other business:

MG informed the meeting that the interdivisional meetings would take place on Sunday 10 August before the Congress opening. Different members of Division III were nominated to participate in the meetings of other Divisions. In particular, FN and VP were nominated to participate in the meeting with Division IV (Polymer), MG and MB met with representatives of Division I (Physical), PT attended the Division VI (Environmental) meeting, and GMB met with Division VII (Human Health).

Professor Jeanne L. Bolliger, a young observer attending Division III and also the Committee for Chemistry Education (CCE), described the objectives and activities of CCE, and emphasised the need to bring changes in the methods of chemistry teaching.

The Division members thanked Professor Mary Garson, Professor George Michael Blackburn, and Professor Krishna Ganesh for their significant and substantial contributions to IUPAC over the last several years, to the Division III in particular.

16. Venue and Timing of next Divisional Meeting: to held during the General Assembly meeting in Brazil in 2017. It was decided that some members from Brazil, and Central and Latin American countries should be invited to participate in the Division III IUPAC GA meeting in Brazil.

NOTES:

The meeting on 8th August 2015 was adjourned at 18.15 h to be reconvened on 9th August at 08.35 h. A dinner was organized for the members of the Division on 8th August 2015 evening in a restaurant nearby the conference venue, and was attended by nearly 35 participants of the Division III meeting and special guests. The members thanked MG, MB and JYJ profusely for excellent arrangements in arranging the splendid dinner.

The meeting ended at 10.00 h with a vote of thanks to the Chair, Professor Mary Garson.

Minutes prepared by:
Professors Virinder Parmar and Mary Garson
October 2015

Report of Division III (Organic and Biomolecular)
IUPAC Bureau/Council Meeting
Busan, Korea

Mary Garson

I. Executive Summary:

The mission of the Division of Organic and Biomolecular Chemistry is to oversee activity in the field of organic and biomolecular chemistry in the broadest sense. Division III consists of a Division Committee (comprising 10 Titular members, 6 Associate Members and 10 National Representatives) and 6 Subcommittees.

Major activities comprise conference organization and projects (both evaluation and involvement); a Divisional newsletter is produced at intervals. The Division oversees the awarding of two IUPAC prizes, the guidelines for one of which (the CHEMRAWN prize for Green and/or Atmospheric Chemistry) have been reviewed during 2015.

Highlights of the 2014-2015 biennium include the hosting of nine international conferences and the funding of four new projects, as detailed below.

II. Division Activities against IUPAC Strategic Goals

1. IUPAC will provide leadership as a worldwide scientific organization that objectively addresses global issues involving the chemical sciences.

The scientific interests of Division III cover organic chemistry in both fundamental and applied dimensions. At the heart of the Division lies the topic of organic synthesis, a keystone science, covering topics as diverse as new reactions and reagents, the asymmetric synthesis of natural products, molecular catalysts, and organometallic chemistry. In the biomolecular area, key topics include chemical biology, notably glycomics, linking across to the more applied topic of biotechnology. The Division has always had strong links into physical chemistry through spectroscopy and/or organic analysis. The discipline of green chemistry first emerged within Division III, and continues to connect the Division to other Divisions of IUPAC.

The main program of activities is conducted in two forms: firstly via a series of well-established international conferences, and secondly through the IUPAC project system. This Division coordinates these scientific topics through six sub committees as well as by involvement in interdivisional activities. The six sub committees are:

Sub committee on Organic Synthesis (2014-2015 Chair: Margaret Brimble, NZ)

Sub committee on Biomolecular Chemistry (2014-2015 Chair: Michael Blackburn, UK)

Sub committee on Green Chemistry (2014-2015 Chair: Pietro Tundo, Italy)

Sub committee on Photochemistry (2014-2015 Chair: Silvia Braslavsky, Germany)

Sub committee on Structural and Mechanistic Chemistry (2014-2015 Chair: vacant)

Sub committee on Biotechnology (2014-2015 Chair: Francesco Nicotra, Italy)

Four of these sub committees meet annually, either at the most relevant scientific conference or at the biannual General Assembly. The photochemistry subcommittee also meets annually at one

of their specialist conferences. The subcommittee on structural and mechanistic chemistry has been inactive in recent years, but maintains carriage of the ICPOC series of conferences (see below).

Project work is core business for the Division; many Divisional projects are linked to global issues involving the chemical sciences. To date, the Division has approved four project proposals during the 2014-2015 biennium (*An introduction to Computational Chemistry and in-silico visualization; a Workshop for sub-Saharan Africa scientists* (2015-016-2-300); *Nomenclature of Homodectic Cyclic Peptides Produced from Ribosomal Precursors* (2015-003-2-300); *Healthy Life and Active Ageing: the Contributions of Functional Food Ingredients* (2013-054-2-300); *Chemistry beyond Chlorine* (2013-057-3-300). Six projects approved during the 2012-2013 biennium remain current (carbohydrate nomenclature (2012-039-2-800), genochemistry (2009-021-3-300), nomenclature of phosphoryl transition states (2013-039-2-300), photoluminescence quantum yields (2013-040-1-300), green chemistry curricula in Latin America/Africa, (2013-041-3-300), glossary of renewable chemistry (2013-036-2-300)), two of which are joint with other Divisions (carbohydrate nomenclature- Div. VIII; photoluminescence quantum yields – Div. I), while three other projects (abbreviations for protecting groups (2011-044-1-300), SE Asian network for organic chemistry (2011-041-1-300), Mediterranean heterocyclic chemistry network (2011-006-2-300)) were approved at the 2011 General Assembly held in Puerto Rico and so are close to a conclusion. A full list of Division projects (2012-2015) is provided at the end of this report.

2. IUPAC will facilitate the advancement of research in the chemical sciences through the tools that it provides for international standardization and scientific discussion.

International standardization: The work of the sub committee photochemistry best exemplifies the contribution of Division III to tools for international standardization. Examples of projects coordinated by members of the group include: *Measurement of Photoluminescence Quantum Yields* (2013-040-1-300; Brouwer); *Standard Photochemical Processes* (2008-037-2-300; Griesbeck). Nomenclature projects are also important: recent examples include *Nomenclature of Homodectic Cyclic Peptides Produced from Ribosomal Precursors* (2015-003-2-300); *Nomenclature of Transition State Structures and their Analogs for Phosphoryl Transfer Reactions* (2013-039-2-300); *Rules for abbreviation of protecting groups* (2011-044-1-300).

During 2015, the Division reviewed past projects within the field of NMR spectroscopy, and convened email discussions with members of the NMR community and with representatives from Division I about the standardization of NMR data in scientific manuscripts, and the level of accuracy associated with the reporting of NMR data. Members of the NMR community belonging to Division III have diverse technical interests ranging from metabolomics, natural products and synthetic structure elucidation, through to NMR methods development, and consequently express a wide range of views on these issues. During the latter part of 2015, a project submission is envisaged, ideally in concert with interested members of Division I.

Scientific discussion: During the 2014-2015 biennium, the Division oversaw arrangements for nine international conference series, many of which are meetings of long-standing within the IUPAC conference calendar. These meetings were: 20th International Conference on Organic Synthesis (ICOS, June 2014, Hungary); XXVth IUPAC Symposium on Photochemistry (July 2014, France); 22nd International Conference on Physical Organic Chemistry (ICPOC, August 2014, Canada); 5th International Conference on Green Chemistry (ICGC, August 2014, South Africa); 16th International Symposium on Biotechnology (IBS, September 2014, Brazil); 28th

International Symposium on the Chemistry of Natural Products/8th International Conference on Biodiversity (ISCNP/ICOB October 2014, China); 10th International Conference on Biomolecular Chemistry (January 2015, India); 11th International Conference on Heteroatom Chemistry (ICHAC, June 2015, France); and the 18th International Symposium on Organometallic Chemistry directed towards Organic Synthesis (OMCOS, June 2015, Spain).

Future meetings in these conference series are envisaged as follows: 21th International Conference on Organic Synthesis (ICOS21, 11-16 December 2016, Mumbai, India); XXVIth IUPAC Symposium on Photochemistry (3-8 April 2016, Osaka, Japan); 23rd International Conference on Physical Organic Chemistry (ICPOC23, 1-8 July 2016, Sydney, Australia.); 6th International Conference on Green Chemistry (6ICGC, 4-9 September 2016, Venice, Italy); 17th International Symposium on Biotechnology (IBS17, 25-28 October 2016, Melbourne, Australia); 29th International Symposium on the Chemistry of Natural Products/9th International Conference on Biodiversity (ISCNP29/ICOB9, Turkey, September 2016); 11th International Conference on Biomolecular Chemistry (October 2017, Konstanz, Germany); dates and venues for the 12th International Conference on Heteroatom Chemistry and the 19th International Symposium on Organometallic Chemistry are under discussion.

3. IUPAC will assist chemistry-related industry in its contribution to sustainable development, wealth creation, and improvement in the quality of life.

The Sub committee of Green Chemistry Subcommittee has provided project activity connecting to the economical growth and activity of the chemical industry, particularly in developing countries. In other activities, Division III conferences, particularly the International Biotechnology symposia and the various Green Chemistry meetings, provide an opportunity to link industry-base chemists with those from universities and the government sector.

4. IUPAC will foster communication among individual chemists and scientific organizations, with special emphasis on the needs of chemists in developing countries.

The 5th International IUPAC Conference on Green Chemistry (5th ICGC) was held in Durban (South Africa), 17-21 August 2014. It was co-hosted by the South African Chemical Institute (SACI), the University of Kwazulu-Natal (located in Durban) and the University of Venda (located in Thohoyandou). This was the first time that the ICGC came to the African continent, and so offered a great opportunity to facilitate interactions of African scientists with colleagues from all over the world and to promote green chemistry in Africa. The main objective of the conference was that of emphasizing the importance of green chemistry for sustainable development; it was a multidisciplinary event considering all the major areas of green chemistry. There were joint sessions with other IUPAC divisions or committees for selected themes (environmental chemistry, green chemistry education, and polymers). A session on sustainability and security, conducted by the Organisation for the Prohibition of Chemical Weapons (OPCW) emphasized the links between scientific knowledge, education and policies with regard to the production and use of chemicals.

A number of Division III projects are strongly linked to chemistry in developing countries. Recent examples include the following geographic areas **Africa**: a workshop in computational chemistry for sub-Saharan chemists (2015-016-2-300, Whitehead); biomass burning in sub-Saharan Africa (2007-025-1-300, Mammino); network for heterocyclic chemistry in North Africa (2011-006-2-300, Florio); green chemistry in higher education (2013-041-3-300, Zuin); **Central/South America** green chemistry in higher education (2013-041-3-300, Zuin); glossary

on renewable chemistry (2013-036-2-300, Vaz); **East and South East Asia**: network for organic chemistry (2011-041-1-300, Isobe).

Next, considering communication, a new initiative of the Istanbul General Assembly was the holding of inter-Divisional meetings. Division III participated in meetings with Division VI, in which joint interests in green chemistry were explored, as well as with Division VIII given the joint interests in various aspects of organic nomenclature. It is hoped that these meetings can continue at the General Assembly in Busan (2015). Finally, the Division produces occasional newsletters, the last being in November 2012. An abbreviated version of this newsletter was published in *Chemistry International* (2013, Sept./Oct., pp29-32). In this way, national representatives have been kept informed of Divisional activities.

5. IUPAC will utilize its global perspective and network to contribute to the enhancement of chemistry education, the career development of young chemical scientists, and the public appreciation of chemistry.

The Division oversees the awarding of two prizes to outstanding young chemists. The Thieme-IUPAC prize in Synthetic Organic Chemistry, which is generously supported by the scientific publisher Thieme, is awarded to a chemist under the age of 40 whose research has had a major impact on the field of synthetic organic chemistry. The 2014 prize was presented at ICOS20 (Hungary) to Professor Martin Burke (USA) for the synthesis and study of small molecules with protein-like functions. The CHEMRAWN VII Prize for Atmospheric and Green Chemistry is presented biannually to a chemist under the age of 40 and from a developing country for research in green and/or atmospheric chemistry. The 2014 prize was awarded at 5ICGC (South Africa) to Dr Vania Zuin (Brazil) in recognition of her significant contributions in developing green analytical methodologies used to analyze bioactive high-value organic substances extracted from agro-industrial residues.

Division conferences are traditionally well supported by younger chemists, and several activities within these meetings target this age group. The majority of these meetings provide poster prizes to student delegates, and some host workshops designed for young researchers to meet with plenary speakers. Details of Division conferences are provided elsewhere in this report.

In relation to the public appreciation of science, the year 2015 has been chosen by UNESCO as the Year of Light (including light technological applications). The photochemical community, and members of the Sub-Committee on Photochemistry, have contributed to this UNESCO-sponsored celebration.

A project funded in 2015 (*Healthy Life and Active Ageing: the Contributions of Functional Food Ingredients*, 2013-054-2-300, Rauter) seeks to bring chemistry to the general public, demonstrating through the implementation of an interactive website, how chemistry offers unique solutions for society needs in terms of a healthy living and a better ageing.

Other projects, notably those coordinated through the Sub-Committee on Green Chemistry, seek to engage young people; for example, project 2013-036-2-300 *Glossary on Renewable Chemistry* (led by Silvio Vaz) is developing content related to biomass chemistry and green chemistry, and is aimed at students as well as at researchers. An earlier project, 2013-041-3-300 *Green Chemistry in Higher Education: towards a Green Chemistry Curriculum for Latin American and African Universities* (led by Vania Zuin) has considered the development of general modules for up-to-date university Green curricula within Chemistry courses (Bachelor and Teacher Training),

and also has an emphasis on public awareness of green chemistry principles. Finally project 2013-057-3-300 *Chemistry beyond Chlorine* led by Pietro Tundo seeks to improve the perception of chemistry.

6. IUPAC will broaden its national membership base and will seek the maximum feasible diversity in membership of IUPAC bodies in terms of geography, gender, and age.

In terms of geographical representation in the 2014-2015 biennium, the Division III committees for 2014-2015 comprised representatives from Asia (1 x TM, 2 x AM, 4 x NR), Africa (1 x NR), the Middle East (1 x AM) in addition to the traditional bases of Europe and North America. The Division has lacked representation from Latin or South America, other than a Provisional Member from Mexico, and various members of project task groups.

In diversity matters, the Division has excellent representation with two female Titular Members serving as Division President and Division Vice President, respectively, two female Associate Members and two female National Representatives. Indeed women comprise 23% of the 2014-2015 Divisional committee. The age profile within the Division still requires attention, although it should be noted that National Representative Dr Oleg Demchuk (Poland) has previously been a Young Observer at Division III meetings. Dr Demchuk has been retained on the Division committee as an Associate Member for the 2016-2017 biennium.

The recent Division ballot has resulted in election of Prof Amelia Rauter (Portugal) as Division Secretary, and of Dr Janet Scott (UK) as a Titular Member, thereby increasing the number of women Titular Members to 4 out of the 10. Membership from the Latin and South American region is considered high priority ahead of the IUPAC meetings in Brazil in 2017, therefore Associate Members have been selected from Brazil and from Puerto Rico for the next biennium. In the 2016-2017 biennium, women will represent 27% of the Division committee.

III. Additional Information:

Finance: Historically, Division III has had considerable difficulty creating worthwhile projects, or allocating its entire project budget; in contrast, the Divisional operating funds that support attendance at subcommittee meetings are under pressure every biennium. One view that is worthwhile considering is that Division III Subcommittees effectively represent broader scale “project taskforces”, and as such merit a portion of the funds that might otherwise be earmarked solely for Division III project activity. The majority of Division business is put forward to the main Divisional meeting from individual Subcommittee meetings; it is therefore essential that Subcommittee meetings are well attended.

Structure and governance: The Division has an Executive Committee comprising the current President (Prof Mary Garson), the Past President (Prof Krishna Ganesh), the President-elect (Prof Margaret Brimble) and the Secretary (Prof Axel Griesbeck; resigned December 2014). The current Executive has sought to ensure that Division practices and decisions are clear to all members, and that all Division members are informed as well as active and involved in Division business. In particular, Division members seeking officer and/or Titular member status are reminded of the need to be involved in Divisional business, for example by suggesting new project initiatives or in project evaluation, or by acting as Chairs of Divisional sub committees.

Division minutes and reports are now archived on the Division website, and the process associated with the biannual Division election for President and new Titular members has been provided to the current Division membership.

IUPAC prizes: At its 2014 meeting, the Green Chemistry sub committee expressed some concerns about the small number of individuals applying for the CHEMRAWN prize for Green and/or Atmospheric Chemistry. The group reviewed the guidelines that govern the award of the prize, and made some recommendations to the Division and to the CHEMRAWN. The IUPAC secretariat was informed; discussions to finalize the guidelines are ongoing.

IV. Tabular Material:

The following pages provide additional details of projects and conferences as well as the membership of Division III for the 2014-2015 biennium.

Mary Garson
President of Division III (Organic and Biomolecular)
Brisbane, report 5 July 2015

**Summary of Division III (Organic and Biomolecular) Projects (most recent first)
(July 2015)**

BIENNIUM 2014-215

Project No: 2015-016-2-300

Title: *An introduction to Computational Chemistry and in-silico visualization; a Workshop for sub-Saharan Africa scientists*

Objective: The objective of the proposed Introduction to Computational Chemistry & In-silico Visualization Workshop for Sub-Saharan Africa scientists is to provide an introduction to computational chemistry, similar to the set of workshops that have already been delivered at the University of Kinshasa but which would now be provided with a larger regional remit. The Sub-Saharan Africa workshop would provide an introduction to molecular modeling in structural chemistry, medicinal chemistry and drug discovery. Application examples would be given, showing the value of these methods for research purposes but also for teaching purposes, as the visual illustration of chemical concepts has been shown to enhance their understanding by students. Existing local chemoinformatics resources such as the Kenyan Mitishamba database of about 2000 compounds would be used to demonstrate the value of such databases and how software can be used to extract valuable information from such sources. The overall aim is to help develop the ability to use software suites to build structural chemistry knowledge among the teachers who can then themselves train others, such that the knowledge transfer process can become self-perpetuating.

Chair: Lewis Whitehead

Members: Evans Changamu, Solomon Derese, Colin Groom, Juliette Pradon

Webpage: [http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1\[project_nr\]=2015-016-2-300](http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1[project_nr]=2015-016-2-300)

Start Date: 01-06-2015

End Date: 01-06-2016

Budget in USD: 4k (2 k from Div III with 2k from COCI)

Progress: update not yet available

Project No: 2015-003-2-300

Title: *Nomenclature of Homodetic Cyclic Peptides Produced from Ribosomal Precursors*

Objective: to disseminate through the scientific community guidelines for nomenclature of homodetic cyclic peptides produced from ribosomal synthesis. Specifically this includes N-to-Clinked peptides belonging to the groups cyanobactins, cyclotides, orbitides, amatoxins, phallotoxins and circular bacteriocins. By selection of a narrow focus we are hoping to develop a template that can be applied to develop nomenclature systems for other groups of peptides. Although peer-reviewed journals have published nomenclature recommendations the objective is also to consolidate literature and provide a IUPAC supported nomenclature recommendation. The project will expand and elaborate on the prior "Nomenclature of Cyclic Peptides" (<http://www.iupac.org/project/2004-024-1-800>) in the naming of the homodetic peptides.

Chair: Martin Reaney

Members: David Craik, Ulf Göransson, Gerard Moss, Ninghua Tan

Webpage: [http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1\[project_nr\]=2015-003-2-300](http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1[project_nr]=2015-003-2-300)

Start Date: 01-06-2015

End Date: 01-06-2017

Budget in USD: 10K (7.5 k from Div III and 2.5k from Div VIII)

Progress: update first meeting scheduled October 2015

Project No: 2013-054-2-300

Title: *Healthy Life and Active Ageing: the Contributions of Functional Food Ingredients*

Objective: to bring Chemistry to the general public demonstrating, through the implementation of an interactive website, how chemistry offers unique solutions for society needs in terms of a healthy living and a better ageing.

Chair: Amelia Rauter

Members: Amal-al-Aboudi, Mary Garson, Melissa Fitzgerald, Francesco Nicotra, Livia Sardaki

Webpage: not yet accessible

Start Date: 21-11-2014

End Date: 21-11-2017

Budget in USD: 7.5 k from Div III

Progress: update filming of video clips undertaken in March 2015 (Rauter, Garson, Sardaki, Nicotra) and website clips/recipes in preparation (June 2015)

Project No: 2013-057-3-300

Title: *Chemistry beyond Chlorine*

Objective: Publication of a book to improve the perception of the role of chemistry in issues of general interest

Chair: Pietro Tundo

Members: Lian-nian He, Ekaterina Lokteva, Murray McLaughlin, Claudio Jose de Araujo Mota, Bo Olssen, Qianghao Qu, Yehudah Shevah.

Webpage: [http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1\[project_nr\]=2013-057-3-300](http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1[project_nr]=2013-057-3-300)

Start Date: 1-5-2014

End Date: 01-05-2016

Budget in USD: 5.6 k (\$4.8k Div III, \$0.8k COCI)

Progress: *June 2014.* Website advises planning group will meet July 2014. No updates available as of July 2015

BIENNIUM 2012-213

Project No: 2013-036-2-300

Title: *Glossary on Renewable Chemistry*

Objective: Construction and publication of a nomenclature guide – an IUPAC Glossary – related to biomass chemistry and green chemistry. Aimed at students (under graduation and graduation), professionals, and researchers from all countries.

Chair: Silvio Vaz Jr.

Members: Monica Damaso, Birgit Kamm, James Clark, Vincenza Faraco, Vitor Ferreira, Claudio Mota, Vania Zuin, Pietro Tundo.

Webpage: [http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1\[project_nr\]=2013-036-2-300](http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1[project_nr]=2013-036-2-300)

Start Date: 30-12-2013

End Date: 30-12-2015

Budget in USD: 5k

Progress: website updated (Jan 2014) with additional details of methodology and timelines. A draft glossary was circulated to TCG members and to Division members (May 2015). A range of comments

were received, and the draft glossary is currently under revision.

Project No: 2013-041-3-300

Title: *Green Chemistry in Higher Education: towards a Green Chemistry Curriculum for Latin American and African Universities*

Objective: 1) Proposing general modules for up-to-date university Green curricula in general and subareas of chemistry of Chemistry courses (Bachelor and Teacher Training), together with their responsible lecturers;
2) Development (generation and/or adaptation) of Green Chemistry contents in theoretical and experimental disciplines of the involved universities in Latin America and Africa, considering the specific context of each region;
3) Contributing to establish permanently Green Chemistry in the education of Chemistry professionals in their initial courses and facilitating the public understanding of Green Chemistry principles showing its involvement in most aspects of common life and current demands nowadays;
4) Putting together universities, industries and governmental/non-governmental sectors in order to approach relevant themes and contents in the Green Chemistry modules

Chair: Vania Gomez Zuin, Lilliana Mammino

Members: Moacir Rossi Forim, Peter Seidl, Claudia Moraes de Rezende, Claudio Jose de Arajo Mota, Fernando de Carvalho da Silva, Carlos Alberto Marques, Patrocoa Vasquez, Gustavo Romaneli, David Gonzalez, Patricia Morales Bueno, Andoni Garritz Ruiz, Neil Coville, Temechegn Engida, Geoffrey Kamau, Egid Mobofu, Pietro Tundo, James Clark

Webpage: See

Start Date: 26-09-13

End Date: 26-09-17

Budget in USD (Expenditure to July 2013): 5k

Progress: . July 2015: website not up-to-date

Project No: 2013-040-1-300

Title: *Measurement of Photoluminescence Quantum Yields*

Objective: The quantum yield (QY) is one of the most important quantitative properties of a luminescent sample, and robust ways to measure it are essential in the application of luminescence techniques. In the project we will perform an inter-laboratory comparison of the two main methods for QY measurements, the classical relative method based on standards, and the absolute method using integrating spheres which recently gained popularity.

The outcomes will be: (i) insight into the reproducibility and inter-laboratory variability of QY measurements using the two methods; (ii) an extended set of standards and protocols for QY measurement.

Chair: Fred Brouwer

Members: Suzanne Fery-Fourges, Stephan Landgraf

Webpage: See [http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1\[project_nr\]=2013-040-1-300](http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1[project_nr]=2013-040-1-300)

Start Date: 26-09-13

End Date: 26-09-16

Budget in USD (Expenditure to July 2013): 4.5k

Progress: Jan 2014 – update premature.

Project No: 2013-039-2-300

Title: *Nomenclature of Transition State Structures and their Analogs for Phosphoryl Transfer Reactions*

Objective: This Project seeks to establish a rational, logical, and practical system of nomenclature to identify discrete axial and equatorial ligands in both t_{bp} and octahedral transition states and their analogues for phosphoryl transfer reactions. In many cases, these will be chirally defined only as a result of coordination to components of the enzyme active site where they are located. It will apply to TSs for “in-line” and/or for (theoretical) “adjacent” attack systems and be independent of considerations about “associative” and “dissociative” TSs. It will link to established IUPAC nomenclature systems and usage, in particular to IUPAC Red Book (2005). It will aim to be directly comprehensible to and useable by stakeholders who may not be specialized inorganic chemists

Chair: Michael Blackburn

Members: Jacqueline Cherfils, Gerry Moss, Nigel Richards, Jon Waltho, Nick Williams, Alfred Wittinghoffer

Webpage: See [http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1\[project_nr\]=2011-044-1-300](http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1[project_nr]=2011-044-1-300)

Start Date: 26-09-13

End Date: 26-09-15

Budget in USD (Expenditure to July 2013): 10k

Progress: *Jan 2015* –the task force group met in late 2014.

Project No: 2012-039-2-800

Title: *Carbohydrate Nomenclature – revision and extension of IUPAC recommendations*

Objective: The aim of this revision and extension is to bring up-to-date the existing Carbohydrate document in the light of the enormous progress made in the areas of glycoscience, biotechnology and bio-informatics in the past 20 years. Furthermore, the explosion of data stemming from glycomics and glycoproteomics, necessitates the connection with databases for presenting adequately carbohydrate structure and sequence information. There exist a number of databases, each covering different collections of data. Developing guidelines for harmonizing these data are within the goals to be achieved. Another aspect deals with the correction of some names.

Chair: J. Vliegthart

Members: Jonathen Brecher, Frank Martin, Karl-Heinz Hellwich, Derek Horton, Thomas Lutteke, Gerard Moss, Stefan Oscarson, Amelia Rauter, Sandro Sonnino, Xavier Nuno

Webpage: See [http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1\[project_nr\]=2012-039-2-800](http://www.iupac.org/nc/home/projects/project-db/project-details.html?tx_wfqbe_pi1[project_nr]=2012-039-2-800)

Start Date: 01-01-2013

End Date: not listed

Budget in USD (Expenditure to July 2013): \$5.5k from Division III

Progress: *December 2013* –website updated.

Details of projects initiated during 2008-2009 and 2010-2011 have been provided in previous Divisional reports, for example the Division III report to the 95th Bureau meeting held in Coimbra (12-13 April 2014).

IUPAC Conferences under Auspices of Division III

International Conference on Green Chemistry (ICGC) series;

ICGC4 (Foz do Iguazu, Brazil; co-chairs Arlene Gomea and Vania Gomez Zuin, August 2012; IUPAC representative Pietro Tundo

ICGC5 (Durban, South Africa) chair Lilliana Mammino (sasdestria@yahoo.com;), 17-21 August 2014; <http://www.saci.co.za/greenchem2014/>; IUPAC representative Pietro Tundo. ICGC6 will be held in Venice, Italy in September 2016 (chair Pietro Tundo).

2014 meeting: The main objective of the conference was to emphasize the importance of green chemistry for sustainable development, and to promote novel research and collaborations, by bringing together experts and interested parties from all over the world – from academia, industry and government. The conference considered all the major areas of green chemistry, including green synthesis processes, catalysis, environmentally benign solvents, energy storage, biofuels, green chemistry education, policies, and many other interesting topics. Interfaces with other sciences and other research areas were actively encouraged. Special attention was given to the roles of green chemistry in fast-growing economies and to the promotion of green chemistry in the African continent. A session on sustainability and security, conducted by the Organisation for the Prohibition of Chemical Weapons (OPCW) emphasized the links between scientific knowledge, education and policies with regard to the production and use of chemicals.

International Conference on Biodiversity and Natural Products (ICOB and ISCNP) series;

ISCNP27/ICOB7 (Brisbane 2011); IUPAC representative David Black

ISCNP28/ICOB8 (Shanghai); Yang Ye (yeye@mail.shcnc.ac.cn; yeyang@live.cn), proposed dates October 20-25 2014; website address-<http://iupac.simm.ac.cn>; IUPAC representative Mary Garson. ISCNP29/ICOB9 has been agreed for Izmir, Turkey in September 2016. Greece has expressed an interest to host ISCNP30/ICOB30.

International Conference on Organic Synthesis (ICOS) series;

ICOS19 (Melbourne, 2012); IUPAC representative Krishna Ganesh

ICOS20 (Budapest, Hungary); chair Péter Mátyus (matyus.peter@pharma.semmelweis-univ.hu), Janos Wolfling; June 29-July 4 2014; <http://www.icos20.hu/>; IUPAC representative Mary Garson
ICOS21 (Mumbai, India) chair Krishna Kaliappan, December 2016. Florence, Italy will host ICOS22 September 2018 (chair: Alberto Brandi).

Update on ICOS20: ICOS-20 was held in ELTE Convention Centre at 29 June - 4 July 2014.

Topics included new reactions and new reagents, applications and new trends in bioorganic chemistry, natural product synthesis, organic synthesis in materials research, organic synthesis in drug discovery and process development, and catalysis in organic synthesis. Plenary lecturers were: Prof. Margaret Brimble (New Zealand) Prof. Marco Ciufolini (Canada) Prof. Minoru Isobe (Taiwan) Prof. Eusebio Juaristi (Mexico) Prof. Max Malacria (France) Prof. Johann Mulzer (Austria) Prof. Jay Siegel (China) Prof. Lutz Tietze (Germany) Prof. Mark A. Rizzacasa (Australia). Professor Martin Burke (USA) was awarded the Thieme-IUPAC Prize for Organic Synthesis, and gave the award lecture.

International Conference on Biomolecular Chemistry (ISBOC) series

ISBOC9 (Beijing, 2012); IUPAC representative Krishna Ganesh

ISBOC10 (Pune, India, January 2015; Co-chairs Ganesh (ganesh1953@gmail.com) and Yamuna Krishnan (yamuna@ncbs.res.in). IUPAC representative: Mary Garson.

Update on ISBOC11: Konstanz, Germany has been proposed as the venue.

International Biotechnology Symposium (IBS) series

IBS 14 (Rimini, Italy) September 2010

IBS15 (Daegu, Korea) 2012; IUPAC representative Francesco Nicotra

IBS16 (Fortaleza, Brazil) chair Osvaldo Carrioca (jkriok@gmail.com), September 14-19; website <http://ibs2014.org/>; IUPAC representative Francesco Nicotra

IBS17 (Melbourne) contact: Glenn Cross (Ausbiotech), 23-28 October 2016

Update on IBS16: The meeting was well supported by R&D Brazilian Scientific Agencies and Brazilian Federation of Industry-CNI, as well as by the Brazilian Association of Chemical and Pharmaceutical Industries. For the first time the IBS-Symposium held a Biobusiness Forum to promote innovation in the country, as well as, the construction of an International Research Platform to promote and engage young students, doctors and researchers into an international biotechnology network leading to collaboration with members of the European Federation of Biotechnology. For that initiative, CAPES- Brazilian Agency for Advanced Post-graduation Studies provided financial support. The participation is confirmed of a Nobel Prize in Chemistry (2004) plus four distinguished scientists as Plenary Lecturers; six experts on Bioeconomy and thirteen outstanding invited speakers for the six parallel scientific sessions.. Elsevier Publishers (Journal on Biotechnologies Advances) offered an Special Issue on Bioeconomy and Biotechnology containing selected works by indicated guest editors.

International Conference on Heteroatom Chemistry (ICHAC) series;

ICHAC10 May 2012 (Kyoto, Japan); chair Norohiro Tokitoh (tokitoh@boc.kuicr.kyoto-u.ac.jp) <http://oec.kuicr.kyoto-u.ac.jp/~ichac10/>; Name of IUPAC representative – unknown.

ICHAC11 June 2015 (Caen, France); chair Annie-Claude Gaumont; website http://www.lcmt.ensicaen.fr/96621202/0/fiche_article/&RH=LCMT_FR.

International Symposium on Organometallic Chemistry Directed Towards Organic Synthesis (OMCOS) series;

OMCOS16 (Shanghai, 2011)

OMCOS17 (Fort Collins, July 28-August 1 2013); chair Peter Kundig (peter.kundig@unige.ch); IUPAC sponsorship approval pending; IUPAC representative still to be nominated.

OMCOS18 (Barcelona, Spain) 28 June - 2 July 2015; chair: Antonio M. Echavarren, Rubén Martín, Kilian Muñoz; website <http://www.omcos2015.com/>

IUPAC Symposium on Photochemistry series;

XXIV Symposium on Photochemistry, Coimbra, Portugal (15-20 July 2012); contact Hugh Burrows

XXV Symposium on Photochemistry, Bordeaux, July 13-18, 2014; chair: Dario Bassani (d.bassani@ism.u-bordeaux1.fr); website <http://www.photoiupac2014.fr/>. Contact:

photoiupac2014@ism.u-bordeaux1.fr. IUPAC representative Silvia Braslavsky

Update on XXV Symposium on Photochemistry: The organization of the XXVth IUPAC Symposium on Photochemistry (Bordeaux, France from July 13 to 18, 2014) proceeded smoothly. The financial operations were the responsibility of the CNRS through their conference organization office of the local delegation, and the number of sponsors obtained was very satisfactory: 10 industrial exhibitors (2 more in negotiations) and 3 publishers. The local government provided substantial financial aid, which has been used to offset the relatively high organizational costs in France in order to maintain low inscription fees and lunches. Additionally, a dozen PhD grants (free inscription) were distributed. The city of Bordeaux agreed to provide free bus and tram tickets to all participants for the duration of the meeting. The IUPAC representative, Prof. Sylvia Bravlsky, provided a brief historical perspective of the meeting in commemoration of its 50th anniversary.

Update on XXVI Symposium on Photochemistry: Osaka. Japan. April 2016. Conference chair: Tetsuro Majima. Preliminary website: <http://web.apollon.nta.co.jp/iupac2016/invitation.html>

IUPAC Conference on Physical Organic Chemistry (ICPOC) series;

ICPOC21 (Durham, UK) September 2012; RSC; IUPAC representative Krishna Ganesh

ICPOC22 (Ottawa, Canada) 10-15 August 2014; chair: Paul Meyer (pmmayer@uOttawa.ca);
<http://events.science.uottawa.ca/icpoc22/committee.html>; IUPAC representative Heidi Muchall

(Concordia)

ICPOC23 (Sydney, Australia) July 10-14 2016; contact: Jason Harper. Website:

<http://www.icpoc23.unsw.edu.au/>

MEMBERSHIP OF DIVISION III (2014-2015)

| Name | Status | Proposed Term | NAO |
|----------------------------|------------------------------|----------------------|----------------|
| Prof. Mary J. Garson | TM – President | 2014-2015 | Australia |
| Prof. Margaret A. Brimble | TM – Vice President | 2014-2015 | New Zealand |
| Prof. Axel Griesbeck | TM – Secretary | 2012-2015 | Germany |
| Prof. Krishna N. Ganesh | TM – Past President | 2014-2015 | India |
| Prof. G. Michael Blackburn | TM | 2014-2015 | United Kingdom |
| Prof. Alberto Brandi | TM | 2014-2015 | Italy |
| Prof. Thomas Carell | TM | 2014-2015 | Germany |
| Prof. Buxing Han | TM | 2014-2015 | China/Beijing |
| Prof. Francesco Nicotra | TM | 2014-2015 | Italy |
| Prof. Nikolay E. Nifantiev | TM | 2014-2015 | Russia |
| | | | |
| Prof. Amal Al-Aboudi | AM | 2014-2015 | Jordan |
| Prof. Vladimir Dimitrov | AM | 2014-2015 | Bulgaria |
| Prof. John F. Honek | AM | 2014-2015 | Canada |
| Prof. Péter Mátyus | AM | 2014-2015 | Hungary |
| Prof. Amélia P. Rauter | AM | 2014-2015 | Portugal |
| Prof. Zhen Xi | AM | 2014-2015 | China/Beijing |
| | | | |
| Dr. Nasim Sultana | NR | 2014-2015 | Bangladesh |
| Prof. Biing-Jiun Uang | NR | 2014-2015 | China/Taipei |
| Prof. Hrvoj Vančik | NR | 2014-2015 | Croatia |
| Prof. Miroslav Ludwig | NR | 2014-2015 | Czech Republic |
| Prof. Petri M. Pihko | NR | 2014-2015 | Finland |
| Prof. Yeun-Mun Choo | NR | 2014-2015 | Malaysia |
| Prof. Mary Olire Edema | NR | 2014-2015 | Nigeria |
| Dr. Oleg M. Demchuk | NR | 2014-2015 | Poland |
| Prof. Viktor Milata | NR | 2014-2015 | Slovakia |
| Prof. Tirayut Vilaivan | NR | 2014-2015 | Thailand |
| | | | |
| Prof. Berhanu M. Abegaz | PM | 2014-2015 | Botswana |
| Prof. Eusebio Juaristi | PM | 2014-2015 | Mexico |
| | 10 TMs, 6 AMs, 10 NRs, 2 PMs | | |

AM = Associate Member

PM = Provisional Member

NR = National Representative

TM = Titular Member

MEMBERSHIP OF DIVISION III (2016-2017)

As approved at Divisional Meeting in Busan

| | | <i>Confirmed/election end date</i> | <i>Updated archive membership</i> |
|--|--------------|--|---|
| Titular Members | | | |
| Margaret A. Brimble <i>President</i> | New Zealand | Transition from DVP to DP | TM300(10-13); SCC301(12-15); DR027_III_(12-15); DVP300(14-15); DP300(16-17) |
| Mary Garson <i>Past President</i> | Australia | Transition from DP to DPP | TM300(06-07); DS300(08-11); DVP300(12-13); DP300(14-15); DPP300(16-17) |
| Francesco Nicotra <i>Vice President</i> | Italy | 1 June 2015 | AM300(02-05); TM300(12-15); DVP300(16-17) |
| Amelia Rauter <i>Secretary</i> | Portugal | 11 June 2015 | NR300(02-05; 08-09); AM300(14-15); DS300(16-17) |
| Pher Andersson | Sweden | 11 June 2015 | TM300(16-17) |
| Jon Clardy | USA | 11 June 2015 | TM300(16-17) |
| Nikolay Nifantiev | Russia | 1 June 2015 | AM300(08-11); TM300(14-17) |
| Ganesh Pandey | India | 11 June 2015 | TM300(16-17) |
| Janet Scott | UK | 11 June 2015 | TM300(16-17) |
| Zhen Xi | China | 11 June 2015 | AM300(14-15); TM300(16-17) |
| Associate Members | | | |
| Vanderlan Bolzani | Brazil | 9 August 2015 | |
| Nestor Carballeira | Puerto Rico | 9 August 2015 | |
| Thomas Carell | Germany | 9 August 2015 | TM300(12-15) |
| Oleg Demchuk | Poland | 9 August 2015 | |
| Bilge Sener | Turkey | 9 August 2015 | |
| Einar Uggerud | Norway | 9 August 2015 | |
| National Representatives | | | |
| Munawar Ali Munawar | Pakistan | 9 August 2015 | |
| Lilliana Mammino | South Africa | 9 August 2015 | |
| Emilia Naydenova | Bulgaria | 9 August 2015 | |
| Koop Lammerstsma | Netherlands | 9 August 2015 | |
| Sylvain Marque | France | 9 August 2015 | |
| Ing Victor Milata | Slovakia | 9 August 2015 | |
| Petri Pihko | Finland | 9 August 2015 | |
| Injae Shin | Korea | 9 August 2015 | |
| Ken-Tsung Wong | China-Taipei | 9 August 2015 | |
| Amal-al-Aboudi | Jordan | 9 August 2015 | |

IUPAC Conferences under Auspices of Division III

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ISBOC10 (Pune, India, January 2015; Co-chairs Ganesh (ganesh1953@gmail.com) and Yamuna Krishnan (yamuna@ncbs.res.in). IUPAC representative: Mary Garson.

Update on ISBOC11: Konstanz, Germany has been proposed as the venue in October 2017.

International Biotechnology Symposium (IBS) series

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IBS16 (Fortaleza, Brazil) chair Osvaldo Carrioca (jkriok@gmail.com), September 14-19; website <http://ibs2014.org/>; IUPAC representative Francesco Nicotra

IBS17 (Melbourne) contact: Glenn Cross (Ausbiotech), 23-28 October 2016

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ICHAC11 June 2015 (Caen, France); chair Annie-Claude Gaumont; website

http://www.lcmt.ensicaen.fr/96621202/0/fiche_article/&RH=LCMT_FR.

ICHAC 12: no advice provided (July 2015)

International Symposium on Organometallic Chemistry Directed Towards Organic Synthesis (OMCOS) series;

OMCOS16 (Shanghai, 2011)

OMCOS17 (Fort Collins, July 28-August 1 2013); chair Peter Kundig (peter.kundig@unige.ch);

OMCOS18 (Barcelona, Spain) 28 June - 2 July 2015; chair: Antonio M. Echavarren, Rubén Martín, Kilian Muñiz; website <http://www.omcos2015.com/>

OMCOS19 is suggested to be held in South Korea

IUPAC Symposium on Photochemistry series;

XXIV Symposium on Photochemistry, Coimbra, Portugal (15-20 July 2012); contact Hugh Burrows

XXV Symposium on Photochemistry, Bordeaux, July 13-18, 2014; chair: Dario Bassani

(d.bassani@ism.u-bordeaux1.fr); website <http://www.photoiupac2014.fr/>. Contact:

photoiupac2014@ism.u-bordeaux1.fr. IUPAC representative Silvia Braslavsky

Update on XXV Symposium on Photochemistry: The organization of the XXVth IUPAC Symposium on Photochemistry (Bordeaux, France from July 13 to 18, 2014) proceeded smoothly. The financial operations were the responsibility of the CNRS through their conference organization office of the local delegation, and the number of sponsors obtained was very satisfactory: 10 industrial exhibitors (2 more in negotiations) and 3 publishers. The local government provided substantial financial aid, which has been used to offset the relatively high organizational costs in France in order to maintain low inscription fees and lunches. Additionally, a dozen PhD grants (free inscription) were distributed. The city of Bordeaux agreed to provide free bus and tram tickets to all participants for the duration of the meeting. The IUPAC representative, Prof. Sylvia Bravlsky, provided a brief historical perspective of the meeting in commemoration of its 50th anniversary.

Update on XXVI Symposium on Photochemistry: Osaka. Japan. April 2016. Conference chair: Tetsuro

Majima. Preliminary website: <http://web.apollon.nta.co.jp/iupac2016/invitation.html>

IUPAC Conference on Physical Organic Chemistry (ICPOC) series;

ICPOC21 (Durham, UK) September 2012; RSC; IUPAC representative Krishna Ganesh

ICPOC22 (Ottawa, Canada) 10-15 August 2014; chair: Paul Meyer (pmmayer@uOttawa.ca);

<http://events.science.uottawa.ca/icpoc22/commitee.html>; IUPAC representative Heidi Muchall (Concordia)

ICPOC23 (Sydney, Australia) July 10-14 2016; contact: Jason Harper. Website:

<http://www.icpoc23.unsw.edu.au/>

Item 13b THE CHEMRAWN VII PRIZE FOR GREEN CHEMISTRY

At its meeting in Durban in 2014, the Sub-Committee on Green Chemistry reviewed the terms and guidelines for the CHEMRAWN prize for Atmospheric and Green Chemistry, and requested their revision. The guidelines reproduced below (April 2015 version) originate from the consultation process (items in red represent suggested changes from the original guidelines).

The following guidelines were approved at the meeting of Division III held in Busan (Korea) in 2015.

The CHEMRAWN VII Future Actions Committee and the Organic and Biomolecular Chemistry Division have agreed to establish a prize to be called: The CHEMRAWN VII Prize for Green Chemistry. The Committee and the Division have also agreed on the following conditions and operating procedures for the prize.

1. The prize of USD 5,000 is to be funded by the income from the CHEMRAWN VII Fund.
2. The prize will be awarded biennially at the IUPAC Conference on Green Chemistry, IUPAC-ICGC.
3. The Prize is to be awarded to a young scientist (under age 40) of PhD standing and from a developing country (to be defined by the Selection Committee) contributing scientifically in the fields of green chemistry and/or atmospheric chemistry.
4. The award will be administered by the Secretariat of IUPAC.
5. The Selection Committee will be: the President of the Organic and Biomolecular Chemistry Division as Chair, the Chair of the Subcommittee on Green Chemistry, and the Chair of CHEMRAWN.
6. The CHEMRAWN VII Future Actions Committee will be informed upon selection of the winner, prior to informing the winner.
7. The Selection Committee reserves the right not to recommend an award, should no suitable nominations be made.
8. The CHEMRAWN VII Future Actions Committee reserves the right to modify this award in regard to its dollar amount, as well as to its frequency of presentation.
9. The Committee also reserves the right to terminate the award subject to providing at least a two year advance notice.