



**IUPAC Division VI**  
**Chemistry and the Environment (DCE)**  
Division Meeting 12-13 May 2018  
FISE Building, Rome, Italy

## Minutes



### **Division and Subcommittee Members Attending**

Prof. Rai Kookana (RK) – Division President and Meeting Chair

Prof. Hemda Garelick (HG) – Division Vice President

Prof. Petr Fedotov (PF) – Division Past President

Dr. Roberto Terzano (RT) – Division Secretary

Prof. Annemieke Farenhorst (AF) - Titular Member

Prof. Nadia G. Kandile (NK) - Titular Member

Prof. Fani L. Sakellariadou (FS) - Titular Member

Prof. Doo Soo Chung (DC) - Titular Member

Prof. Irina Perminova (IP) - Titular Member

Dr. Laura McConnell (LM) - Titular Member

Prof. John Unsworth (JU) - Associate Member, Chair Subcommittee on Crop Protection

Dr. Diane Purchase (DP) - Associate Member, Co-chair Subcommittee on Chemical and Biophysical Processes in the Environment

Dr. Wenlin Chen (WC) - Associate Member

Prof. Edgar Resto (ER) - Associate Member  
Prof. Bulent Mertoglu (BM) - National Representative  
Prof. Weiguo Song (WS) - National Representative  
Dr. Bipul Behari Saha (BS) - National Representative  
Prof. Ester Heath (EH) - National Representative

**Guests:**

Dr. Gijs Kleter (GK) - teleconference connection  
Prof. Philippe Garrigues (PG)  
Dr. Yehuda Shevah (YS)  
Dr. Nathan De Geyter (ND)  
Dr. Mario Malinconico (MM)  
Dr. Anna Makarova (AM)  
Prof. Willie Peijnenburg (WP)

**Apologies received:**

Prof. Baoshan Xing (BX) - Associate Member, Co-chair Subcommittee on Chemical and Biophysical Processes in the Environment  
Dr. Bradley Miller (BM) - Associate Member  
Prof. Cristina Delerue-Matos - National Representative  
Prof. Stefka Tepavitcharova - National Representative  
Prof. Gloria Obuzor - National Representative  
Prof. Nicola Senesi  
Dr. Tiina Sikanen

## Saturday May 12, 2018

### 1. MORNING SESSION – CURRENT STATUS AND ACTIVITIES - 10:00 A.M.–1:00 P.M.

#### 1.1 Opening, welcome, members attending, introductions of members, apologies – *RK and RT*

*RK welcomed the participants and particularly the new members and guests who joined our division meeting. All the participants introduced themselves and their interests and activities.*

*MM, as Italian NAO Representative, welcomed the participants to Rome and to the venue, which is the Italian headquarter of ATIA ISWA (International Solid Waste Association).*

*MM presented to the participants the activities of ISWA (Appendix A).*

*LM presented to the new members and guests the activities of IUPAC (Appendix B).*

#### 1.2 Approval of agenda, additions etc. - *RK and RT*

*The agenda was approved. A presentation by BS about Chemistry in India was added as a new item in the Sunday agenda.*

*RK informed the participants that he created a Google drive where all the useful files will be stored and he will send all the Division Members an invitation to access the drive.*

#### Actions

[RK - To share Google drive with all the Division Members](#)

#### 1.3 Minutes of previous meeting (July 2017, Sao Paulo, Brazil) and teleconference (February 2018). Goals for current 2-Day Meeting – *RK and RT*

*Previous minutes were approved and can be published on the Division website after removal of sensitive parts.*

*RK presented to the participants his last report to Bureau including divisional objectives (Attached to Meeting Agenda).*

*RK and RT suggested to post on the Division website only the publications connected with Division Projects or where IUPAC is acknowledged. Other relevant publications can be listed in the Subcommittee webpages.*

#### Actions

[RT - To publish the Sao Paulo Meeting and Conference Call Minutes on the website](#)

[All - To send RT recent publications where IUPAC is acknowledged for publication on the website](#)

1.4 Review of previous Actions (Sao Paulo Meeting and conference call) - RK, RT, HG

*Most of the previous actions have been completed. The following remaining actions were addressed:*

- ER was nominated as Division Representative within the Interdivisional Committee on Green Chemistry for Sustainable Development (ICGCSD)
- Annemieke Farenhorst and Fani Sakellariadou were nominated Project Coordinators (PC) of the Division
- The Subcommittee on Materials Chemistry must be informed to include DC as Division VI representative
- RK is by default the representative of Division VI within the Interdivisional Committee on Terminology, Nomenclature and Symbols (ICTNS)

**Actions**

HG - To inform the Committee on Green Chemistry for Sustainable Development that ER is the new representative of Division VI instead of HG

RK - To inform Fabienne Meyers that AF and FS are the PCs of the Division

RK - To inform the Subcommittee on Materials Chemistry to include DC as Division VI representative

1.5 Overview of Division Status, Roles and Budget – RK

*RK presented the list of Division Members and their roles.*

*RK presented the budget available for the Division in the Biennium 2018-2020.*

*Some projects were already accepted in the previous biennium but had not been fully financed:*

- BX asked funding to continue the project 2016-047-1-600. Division Members agreed to fund the project with \$4500 for this year and to allocate the remaining \$4000 afterwards, depending on the progress and financial demand by the project.
- RK project 2017-035-2-600 was accepted but additional \$6000 needs to be allocated to this project. Division Members agreed to fund the project with \$4000 for this year and to allocate the remaining \$2000 afterwards, depending on the progress and financial demand by the project .

*Some new projects have been reviewed and decision must be taken for funding:*

- Division Members agreed that the Project by Gubala on "IUPAC Chemistry in the classroom" has already commenced in anticipation and therefore should be funded with \$2500, if the comments of the reviewers will be addressed and if "Environmental" issues will be better implemented in the proposal.
- YS presented his project (#2018-013-1) on " Bioavailability of Endocrine Substances in Aquatic Ecosystems". The project review has been completed and a detailed review is

to be sought under the new project evaluation process. Then the reviewers comments are to be sent to YS.

## Actions

FS - To send YS (through Fabienne Meyers) the review of the above project

### 1.6 Short reports from Division VI representatives on Standing Committees and other Divisions

- ChemRAWN – NK

*NK reported from ChemRAWN.*

*The ChemRAWN committee discussed new ideas for new conferences such as:*

- 1. Low cost medical diagnostics.*
- 2. Capacity Building initiative.*
- 3. E-wastes.*
- 4. Herbal Medicine for Health Care.*
- 5. Solid Urban Wastes.*
- 6. Social media plans & next steps.*

*Updates were also presented about the Green Catalysis conference.*

*There will be a plan for collaboration with the Chemical Education Committee.*

- Committee on Chemistry and Industry (COCI) – HG

*HG reported from COCI. The Committee met in Sao Paulo in July 2017 and in Bratislava in April 2018. HG has attended part of the Bratislava meeting.*

*The main activities of COCI relates to IUPAC's relationship with industry and the contribution IUPAC can make to industry's sustainability and Responsible Care agendas. These were reported on by BS and AM at the Bratislava meeting.*

*AM also presented the joint activities with SAICM.*

*The Responsible Care project material has been collated into a book and published by IUPAC/DeGruyter. The title is "Responsible Care a Case Study".*

*The book has been provided to a number of individuals and associations and is being translated into Arabic and possibly into Russian and French.*

*The Safety Training projects enable chemists from developing countries to be hosted in Industrial settings where training in safety can be carried out. Currently 1-2 Fellows from developing countries are trained per year to deliver improved Environmental Health and Safety programs to their institution.*

*The relationship with Industry is also expressed through the company associate (CA) scheme, and survey of NAOs and CA to collect feedback on the CA scheme is being developed with the aim of finalizing recommendations from proposals into a final CA scheme. COCI aims to create documentation to recruit*

*companies and collect inputs from IUPAC units on activities related to industry which our Division could contribute to.*

*BS reported about some activities in safety training and AM on COCI responsible care program.*

*RK expressed interest to IUPAC leadership in involvement of Division VI in the Organisation ForThe Prohibition of Chemical Weapons (IPCW)*

- Committee on Chemical Education (CCE) – IP

*IP arrived later in the day, after the discussion of this point. Anyway, she had no news to report from CCE.*

- Interdivisional Committee on Terminology, Nomenclature and Symbols (ICTNS) – PF

*PF reported that as Representative of DCE to ICTNS, in 2008-2017 he was asked to review a series of technical reports submitted for publication in Pure and Applied Chemistry and participated in ICTNS annual meetings during General Assemblies.*

*In general, it seems reasonable if in the future Division VI will find possibilities to collaborate more actively with ICNTS and other Division Committees. Such a joint work may promote elaborating comprehensive interdisciplinary approaches to terminology that is used in different fields. This may help to avoid numerous mutual misunderstandings that often occurred until now.*

- Pure and Applied Chemistry Editorial Advisory Board (PAC-EAB) – LM

*LM suggested to submit papers to PAC, especially reviews, in order to help the Journal to increase the IF which presently is 2.41.*

- Interdivisional Subcommittee on Materials Chemistry – DC

*DC reported that he has no news from the Subcommittee on Materials Chemistry.*

- Division VII Chemistry and Human Health Division – BM

*BM did not attend the meeting and did not send a report*

#### **Actions**

**BM - to send a written report to RT**

**LM - to send a written report on PAC-EAB activities to RT**

- 1.7 a. Short Subcommittee Report - Chemical and Biophysical Processes in the Environment – DP

*DP reported from the Subcommittee on Chemical and Biophysical Processes in the Environment. The report of the Subcommittee activities is attached (**Appendix C**).*

- b. Short Subcommittee Report - Subcommittee on Crop Protection Chemistry – JU

*JU reported from the Subcommittee on Crop Protection Chemistry. The report of the Subcommittee activities is attached (Appendix D).*

1.8 IUPAC Bureau meeting and other activities – RK and HG

*RK reported about his presentation of Division Activities at the last Bureau Meeting in Bratislava (attached to Meeting Agenda).*

*LM described the IUPAC organization and the persons to contact at IUPAC for any specific request (i.e. Fabienne Meyers for projects and Lynn Soby for any other matter).*

*RK reported about the possibility of acknowledgement of contribution of Divisional Consultants who are no longer members of the Divisional committee, including Emeritus Fellows program, as is done by Division I.*

*RK remarked about the importance of publication of project reports and the need for consistency with IUPAC nomenclature via ICTNS.*

*RK argued about the importance of social media to communicate Division activities. In this sense Twitter is a powerful tool that should be exploited. RK expressed the need to identify a Division Member to spread the information on Division VI activities through Twitter.*

*RK reminded about the request of questions for the periodic table challenge.*

*RK reported about next IUPAC meetings. In particular, expressed interest for a greater engagement with OPCW and representation at The Hague meeting later in 2018.*

*RK commented that in the future an important issue to consider will be Big Data in Chemistry.*

1.9 Funding commitments and project budget allocations - RK

*This issue was already discussed in point 1.5*

1.10 Project Coordinator, new review process, tools - RK and RT

*FS and AF were appointed as Division VI project coordinators.*

*FS will handle new projects submitted to the attention of the Division while AF will take care of existing projects.*

*After discussion, Division Members agreed to modify the way projects are managed.*

*As for new projects, a new evaluation procedure requiring in depth reviews was discussed and a written step wise procedure will be developed and made available to all the Division Members.*

*As for the questionnaire to be used for the review process, the existing one will be opportunely modified by the PC for a more in depth review process and made available to all the Division Members.*

*The external review process will be followed by Fabienne Meyers as already happened in the past.*

*As for existing projects, the PC will have the following tasks:*

- *Solicit project updates two times per year.*
- *When the end date of a project is approaching, remind the project leader to (a) submit a final report (e.g., an article in Chemistry International), and/or (b) apply for an extension.*
- *Inform the Division President on projects that can be closed and hence removed from the monthly financial reports.*
- *Other communications on existing projects, as needed.*

*Trello online platform will be used to manage the projects and keep trace of their progress.*

#### Actions

RT - To send FS the biosketches of the Division VI members.

#### 1.11 Division VI web pages - RT

*RT reported about the status of the Division website.*

*A new picture will be inserted after the Rome Meeting.*

*A link to Division Members biosketches will be inserted.*

*RT suggested to add in the news the links to Conferences and Symposia organized by Division Members within IUPAC projects or where Division VI is involved.*

*Also links to relevant publications within IUPAC Division VI activities should be highlighted in the news.*

*LM suggested to ask Fabienne Meyers to put a link to our news in the IUPAC main webpage and tweet it, in order to get more visibility.*

*The bibliography of the Division publications needs to be updated.*

*The webpage of the Subcommittee on Crop Protection Chemistry needs to be completely revised since only very few information is present.*

*The webpage of the Subcommittee on Chemical and Biophysical Processes in the Environment needs to be updated with last news and information.*

#### Actions

All - to send RT material to update the website (pictures, text, papers, etc.)

LM - to send RT material to update the Subcommittee on Crop Protection webpage

DP - to send RT material to update Subcommittee on Chemical and Biophysical Processes in the Environment webpage

RT - To update the website with the material received by the Division Members

RT - To insert a link to the Division Members biosketches on the website



## **2. AFTERNOON SESSION – PROGRESS REPORTS REVIEW, PROJECT PROPOSALS REVIEW; PLANNING, BRAINSTORMING, FUTURE PLANS 2:00 P.M. – 4:00 P.M.**

### **2.1 Current projects. Review of progress reports. Status/Needs/Accomplishments - RK, RT, HG**

*RK reported about the current projects and the need of closing some of them because they are far behind the expected deadline and/or inactive and others probably need an extension to be completed.*

*The following actions were decided for current projects:*

*2010-060-1-600 (Unsworth): to be closed and removed from the list of active projects.*

*2011-019-1-600 (Xing): complete. To be removed from the list of active projects.*

*2011-023-2-600 (Harris): to be closed or restart with a new project*

*2012-018-5-600 (Parker): to be closed and removed from the list of active projects.*

*2012-019-1-600 (Unsworth): to be extended until 31/12/2018*

*2013-024-2-600 (Molyneux): in progress*

*2013-029-2-600 (Kleter): to be extended until 31/12/2018(?)*

*2014-026-3-600 (Obare): in progress. To ask if extension is needed.*

*2014-031-3-600 (Purchase): in progress*

*2014-032-1-600 (Karpouzas): to ask if extension is needed.*

*2015-010-3-600 (Keen): in progress*

*2015-056-3-600 (Kalderis): in progress*

*2016-016-2-600 (Kookana): in progress*

*2016-019-2-600 (Terzano): in progress*

*2016-025-1-600 (Carazo): complete. To be removed from the list of active projects.*

*For the website associated with project 2016-025-1-600 (Carazo), the task group chair should be “Elizabeth Carazo” or “Elizabeth Carazo Rojas” rather than “Elizabeth Rojas”. In addition, since the results of this project have been published in Chemistry International, this can be reflected in the final project details.*

*2016-035-1-600 (Purchase): complete. To be removed from the list of active projects.*

*2016-047-1-600 (Xing): in progress*

*2017-004-1-600 (Chung): in progress*

*2017-013-1-600 (Racke): in progress*

*2017-018-3-600 (Sheva): complete. To be removed from the list of active projects.*

*2017-035-2-600 (Kookana): in progress*

*IP noticed that her project 2016-015-2-600 was not in the list and it should be added as it is in progress.*

## Actions

AF - To inform Fabienne Meyers to add IP project to the list of active projects.

AF - To inform Fabienne Meyers about the status of active and complete projects.

- 2.2 Short reports and discussion on interdivisional projects with the participation of Division VI – HG, RT and RK

*RK already reported about interdivisional projects when presenting his report to Bureau in point 1.8*

*IP confirmed that a number of projects are running in collaboration with Division III, V, VII and COCI.*

- 2.3 Review of new project proposals - RK and RT with Project Coordinator

*This issue was already discussed as part of point 1.5*

- 2.4 Brainstorming of ideas for new Project Proposals - All

*RK suggested that, because of time constraints, ideas for new projects should be developed within the two Subcommittees and then reported by the Subcommittee Chairs at the end of the meeting for discussion.*

- 2.5 Discussion of high priority topics for new call for Proposals Flyer - All

*This issue was not discussed because of limited time availability and will be discussed in the next conference call as there is no urgency. In fact, the present call for proposals is valid until the end of September.*

- 2.6 Brainstorming on ideas for enhancing interdivisional cooperation - All

*This point has been postponed to the Sunday activities together with the other project ideas.*

- 2.7 IUPAC Centenary 2019 – LM, HG and RK

*LM reported about all the activities which are being prepared for the IUPAC Centenary celebrations in 2019. She also presented the dedicated website IUPAC had created for the occasion. The presentation by LM is attached ([Appendix B](#)).*

- a. Division VI Environmental Poster Prize

*This issue was not discussed and will be re-proposed in the next conference call.*

b. Proposal for a Division VI symposium

*The discussion of this point has been postponed to the Sunday activities (4.7).*

**3. AFTERNOON SESSION – SUBCOMMITTEE MEETINGS 4:15 P.M. – 6:00 P.M.**

*The Subcommittees on Crop Protection Chemistry and on Chemical and Biophysical Processes in the Environment were divided in two separate rooms to discuss about new ideas to propose as topics for new projects.*

*The minutes of the Subcommittee on Crop Protection Chemistry meeting are attached ([Appendix E](#)).*

*The minutes of the Subcommittee on Chemical and Biophysical Processes meeting in the Environment are attached ([Appendix F](#)).*

## Sunday May 13, 2018

### 4. MORNING SESSION – COLLABORATIONS, OUTREACH PLANS (WITH THE PARTICIPATION OF GUESTS) 9:30 A.M. - 1:00 P.M.

*BS made a presentation about "Chemistry in India" with a special emphasis on responsible care. The presentation by BS is attached ([Appendix G](#)).*

#### 4.1 Presentation of Division VI and its activities to Guests and New Members- RK

*This presentation was already done by RK and LM at the beginning of Saturday activities (1.1. and 1.8).*

#### 4.2 Collaborations of Division VI with other IUPAC Divisions and Committees - HG

*Already discussed on Saturday in point 1.6*

#### 4.3 Present and new opportunities for collaborations with other Institutions - RK

*This point has been postponed after the presentations by the guests.*

#### 4.4 SAICM presentation and future collaboration - AM

*AM presented the activities of SAICM and its connections with IUPAC. The presentation is attached ([Appendix H](#)).*

*An article about SAICM and IUPAC has been published in Chemistry International in 2016 ([Appendix I](#)).*

*Ideas of possible collaboration with SAICM have been proposed:*

*WC proposed a project on water monitoring integrating computer modeling and available data in order to provide recommendations for a better monitoring design and quality of data.*

*RK proposed a project dealing with the illegal traffic of chemicals, especially antibiotics for aquaculture in South East Asia.*

*LM suggested to have a Division representative within SAICM. RK is proposed as possible representative.*

*RK proposed a project on sustainable development reviewing what has been already done in the past by the Division through projects.*

*NK proposed the idea to develop a project on green chemistry and sustainable development to create a link between Division VI and ICGCSD.*

#### 4.5 Pesticide World Congress 2019 - ND

*ND presented all the activities in preparation of the Pesticide World Congress which will take place in Ghent (Belgium) in 2019 (Appendix L).*

*The conference website has a very active newsletter.*

*It was proposed to provide content for the newsletter to be posted on the Conference website. RK proposed to prepare a story about nanopesticides for publication via conference newsletter.*

*HG proposed to post on the Conference newsletter the Division VI call for project proposals.*

#### Actions

All - To provide content to Nathan De Geyter for the Conference Newsletter (e.g. call for Division VI project proposal, nanopesticides, etc.)

#### 4.6 Conference Opportunities for Outreach and Interaction - LM

*EH reported that the EuCheMS Division on Environmental Chemistry (DCE) is organizing in 2019 the 17th International Conference on Chemistry and the Environment (ICCE) in Thessaloniki (Greece).*

*EH suggested to organize a joint satellite event on an emerging topic such as for example glyphosate or fire retardants.*

*HG suggested that the Subcommittee on Chemical and Biophysical Processes in the Environment could be involved in the organization of a satellite event such as a kick off meeting of a new project.*

*The next ICCE Meeting then will be in Venice in 2021. A joint meeting could be organised in that occasion.*

*RK suggested that the EuCheMS conference in 2020 could be a better occasion to define a joint meeting and a symposium to be held in 2021 in Venice.*

*HG, DP and EH were asked to explore the possibility of collaboration between Division VI and EuCheMS-DCE.*

*EH, as Editor of the journal ESPR, reminded the active involvement of some members of the Division in the journal and suggested to those who are interested in contributing to ESPR to contact the Editor-in-chief PG.*

#### Actions

EH,HG, PF,DP - To explore the opportunity for participation in ICCE Conferences and organize joint Meetings.

#### 4.7 Brainstorming of new collaborative project ideas - All

*DP reported about the outcomes of the brainstorming within the Subcommittee on Chemical and Biophysical Processes in the Environment. The project ideas are listed in Appendix E.*

*JU and LM reported about the outcomes of the brainstorming within the Subcommittee on Crop Protection Chemistry. The project ideas are listed in Appendix F.*

*After discussion, RK suggested to start developing some of the proposed ideas for the preparation of specific projects.*

4.8 Additional Agenda Items or other New Business

*No other business.*

4.9 Next conference call and meeting - RK and RT

*This point was not discussed but presumably next conference call will be in September 2018 to define also next meeting in 2019.*

4.10 Final Review of Action Items - RT

*RT presented a list of actions arising from the discussions of the two days of meeting.*

4.11 Closing remarks - RK

*RK thanked all the Division Members, National Representatives and guests for the active participation and expressed his wishes that some of the ideas developed during the meeting will come to fruition in the form of projects and other activities.*

**Attachments:**

A - Presentation of ISWA by MM

B - Presentation of IUPAC and IUPAC100 by LM

C - Report from the Subcommittee on Chemical and Biophysical Processes in the Environment

D - Report from the Subcommittee on Crop Protection Chemistry

E - Minutes and list of project ideas from the Subcommittee on Chemical and Biophysical Processes in the Environment meeting and brainstorming

F - Minutes and list of project ideas from the Subcommittee on Crop Protection Chemistry meeting and brainstorming

G - Presentation on "chemistry in India" by BS

H - Presentation about SAICM by AM

I - Article about SAICM and IUPAC by AM

L - Presentation about IUPAC Crop Protection Chemistry Conference by ND

M - Rome Meeting Action Table