

Division VI - Chemistry and the Environment (DCE)
Annual Meeting
San Francisco, USA, 8-9 August 2014
Minutes

August 8, 2014

1. Opening, welcome, members attending, apologies, introductions of observers

Titular, Associate and National Representative Members Present:

Dr Laura McConnell (LM) - Division President and meeting chair

Prof Hemda Garelick (HG)- Division Secretary

Dr Heinz Rudel (HR)-TM-

Prof. John B. Unsworth(JU)- TM

Dr. Gijis A. Kleter (GK)- AM

Prof. Baoshan Xing (BX)- TM

Prof Sirpa Herve (SH)- AM

Prof. Doo Soo Chung (DSC)- NR

Rai Kookana (RK), attended 2nd day only.

Guests :

Dr Eileen M. Nottoli,(EM)– Member of ACS Committee on Environmental Improvement

Dr Sherine Obare (SO) – Department of Chemistry, Western Michigan University

Prof. Hiroto Tamura (HT), Laboratory of Environmental Microbiology, Department of Environmental Bioscience,

Meijo University, Nagoya

Apologies received :

Dr. Petr Fedotov; Prof. Manos Dassenakis; Dr. Philippe Garrigues; Prof. Nadia G. Kandile; Dr. Nelly Mañay; Prof. Roberto Terzano; Prof. Ana Aguiar-Ricardo; Prof. Jasim Uddin Ahmad; Prof. Vlasta Piližota; Dr. Chris Swyngedouw; Dr. Stefka Tepavitcharova; Prof. Yong-Chien Ling.

LM welcomed all participants and all participants introduced themselves and their work and interests.

2. Overview of IUPAC, Division Status, Strategic Plan Goals and Plans for 2-Day Meeting

A brief overview of IUPAC activities was presented by LM, including:

- Organisational scheme of IUPAC;
- IUPAC Standing Committees;
- Division Mission Statement: “The IUPAC Division of Chemistry and the Environment (DCE) is recognised as a leading organization on authoritative critical reviews, interactive workshops, and outreach to the scientific community and the public on emerging topics in environmental and food chemistry”;
- Division-sponsored Workshops;
- Division structure;
- Budget;

- Presentation of Budget and Available Funds for New Projects – McConnell

List of projects already funded this Biennium

Total Budget for 2014-2015 = \$59,800

Commitments:

- a. 2013-029-2-600 Kleter
 - “Inventory of developments in the field of RNAi-based pesticides and potential needs for international harmonization of regulatory safety requirements” - \$4,000

- b. 2014-002-1 Manfred Groening
"Assessment of Stable Isotopic Reference Materials" - \$2000 (Under review by project committee – Budget requested \$7100)
- c. 2014 - Annual Meeting in San Francisco - ~\$10,000 - \$13,000

Remaining Division Funds = ~\$40,500

- Funding options – role of IUPAC Project Committee
- The invitation for projects flyer

The slides of the presentation are included as a separate file (**Appendix 1**).

3. The Newly Combined Subcommittees – Joining of Subcommittee on Subcommittee on Biophysico-Chemical Processes in Environmental Systems, and the Subcommittee on Environmental Compartments

- b. Proposed name: Sub-committee on chemical and biophysical environmental processes. Discuss and make final decision on name.
- c. Proposed Action: Baoshan Xing and Petr Fedotov are proposed as joint chairs with Heinz Ruedel as secretary. When Petr becomes Division President Heinz will take the joint chair with Baoshan and a new secretary will be named.

The above was motions were proposed (moved by LM and seconded by HG) and voted on. These were unanimously passed (8/8 votes)

- d. The meeting discussed the proposed name of the new sub-committee and it was agreed to be '**Sub-committee on Chemical and Biophysical Processes in the Environment**'.
- e. A discussion took place about the activity of the proposed sub-committee. HR suggested that there will be participation from the sub-committee in a conference every year related to collaborating organisations such as SETAC and NORMAN. These will be further discussed within the sub-committee meeting.

Discussion on the future of the Food subcommittee has taken place. It was suggested that this sub-committee may be better place in Division VII .

Action : LM to discuss this with Div VII president

Result: Dr. McConnell contacted Tom Perun of Division VII and he suggested Dr. Anders Kallner of Karolinska University Hospital, former Division VII president, as a potential liaison with interest in Food Chemistry. Dr. McConnell has contacted Dr. Kallner to get some ideas/feedback from him.

4. Discussion on Subcommittee on Crop Protection Chemistry - John Unsworth (chair), and Gjis Kleter (secretary)

JU reported on the activities of the subcommittee

It was discussed whether it should be integrated with the crop protection subcommittee but then International association of food safety

Discussion on the emphasis on microbiology in food safety rather than the chemical residues

The pesticide group award

- Expanding membership (need to think about ways to refresh)
- Suggestions for new projects, e.g. tropical soils, food processing, soil desorption, microbial ecotoxicity, herbicide resistance, workshops on environmental risk assessment,
- Review documents following workshops
- Nairobi conference participation: National Vision 2030; ideas for follow-up (participation in current meeting)
- Conference in India: proposal for another conference in 2016

- Pesticide residue workshop (follow-up in Chile, 2015)

Discussion: topic important particularly for developing countries given that only a limited number of incidents are linked to pesticides in developed countries; residue analysis in developing countries could be a topic; example of past project on obsolete pesticides

LM suggested that the Division should consider an award to either

- PhD or
- early stage Scientist

It was agreed that assessing PD thesis may be too onerous

A committee to work on this was formed : GK, LM, DSC, BX, HT

Action: JU and the above committee to develop recommendations on a new division-wide Environmental Chemistry award by next Division conference call

JU Invited all participants to the workshop on Leadership on Sunday following.

5. Preparations for the 48th General Assembly in Busan Korea – Need lead organizers and committee members.

a. Cross-divisional meetings

A discussion on which divisions and standing committees will be identified for collaboration, the main ones proposed are

- Chemistry and Human Health Div VII
- Div VII has expressed interest in collaboration and have proposed a representative to coordinate this (Mike Schwenk).

Action HG to coordinate

Result: in progress

- Organic and Biomolecular Div III
- Analytical Chemistry Div V

b. Cohosting the World Chemistry Leadership Meeting jointly with Committee on Chemistry Education

This meeting was typically hosted by COCI but in the next GA is going to be hosted by the CCE Mei-Hung Chiu lead for CCE has proposed a theme of sustainability. Some slides were developed from a meeting held at the recent CCE Conference. Div VI will Co- host the meeting.

A discussion took place about how to narrow the topic and what areas may be covered.

Suggestion included

- Potentially could tie the Letcher project on Climate Change Book and invite expert speakers (e.g. Letcher and expert contributors to his book could contribute to the discussion on Climate Change) and suggestion of themes
- Water and sustainability with a variety of themes
 - Use of water in Agriculture
 - protecting water resources
 - Emerging Contaminants
 - Clean Drinking Water Availability
 - Acidification of Water Bodies
 - Minimizing the Use of Water in Industry
 - Energy use in Water Purification
 - Melting of Arctic/Antarctic ice
 - Chemistry Community taking leadership to protect water resources
 - Use of water in renewable energy production
 - Use of water in fracking

- Where chemistry needs to go to address the most critical issues

Action LM: *to contact leaders of CCE and COCI regarding our suggestions and get additional info on the format of the WCLM.*

Result: *In Progress*

c. Sponsoring an Environmental Chemistry Poster Session and Poster Prize

LM reported that the organizer of the Congress have agreed that the Division will sponsor a poster prize at the congress.

There need to be clarity on what poster will be selected for the competition and how. Some themes were identified from the congress website

Abstract are not invited before Dec 2014

Action LM and HG to contact congress organisers and inquire as the the process,

d. Symposium on recent IUPAC Call for Proposals – Sustainable Catalysis – funded scientists will be invited to present talks –

Action LM: *Contact World Congress organizers to follow up.*

f. Brainstorming on ideas for upcoming IUPAC Centennial in Paris, 2019

The discussion has raised a number of issues and a number of suggestions were made

- LM suggested a photography contest on-line.

The theme should look at chemistry solutions not just problems

There should be prizes for different age groups e.g. school age, college etc

RK mentioned a photography contest that his organization was involved with.

Action RK: *Please send info on earlier contest.*

- Address Environmental problem from the historical perspective and how chemistry assisted in solving them. Examples:

- Water treatment
- water desalination
- arsenic,
- air pollution
- acid rain
- Plastics
- Appropriate solutions

- GK suggested the Involvement of OECD

Action: *GK to contact the appropriate person*

- Centennial Committee to be formed: member will include GK and BX – charged with fleshing out ideas for photography contest and solving environmental problems project.

Action : *GK and BX*

Action: *LM – Contact organizers for Paris Meeting.*

- Prof. Doo Soo Chung is organizing an HPLC conference on Je Ju Island (Korea) in 2017. He suggested exploring ideas IUPAC participation, November: 2-day symposium in parallel to HPLC event, nominal sponsorship of IUPAC.

DSC presented the historical perspective of the HPLC society which was founded on 1973.

The expected attendance in the 2017 conference (which is jointly organized with the Korean Environmental analysis Society) is 600 participants with about 150 oral presentations

He suggested that the above conference theme will be related to water and environmental analysis

SH suggested the inclusion of passive sampling.

LM explained the process of acquiring the IUPAC sponsorship and logo.

Action: *Small committee of volunteers is needed to work with Dr. Chung. Please contact Hemda to let her know you are interested.*

6. Discussion of new Proposals received from Secretariat

a. 2014-023-1 – Lechter - CLIMATE CHANGE: Observed Impacts on Planet Earth, 2nd Edition.

Submitted to Division VI, VII, CCE, COCI and ChemRAWN

GK reminded the members that this is a second addition of an already published an IUPAC supported book which had an enthusiastic forward from the then IUPAC president.

HG summarized the division reviewers main comments. Generally positive but with a few critical comments the main being:

- Nearly all authors from UK and North America
- HR suggested that the editor should present a summarizing paper in a peer-reviewed scientific journal (e.g. PAC).
- There was a query about who is reviews the chapter
- Discussed the need for review by ICTNS to ensure that IUPAC terminology and units are utilized.

It was agreed that finance will be available with the following conditions:

- i. present a summarizing paper in a peer-reviewed scientific journal (e.g. PAC)
- ii. Address the chapter review process
- iii. Ensure review by ICTNS

One recommendation:

- i. Invite authors from other countries (particularly from developing countries) to participate.

Action: *LM to contact Fabienne to as to whether any external reviews of the proposal have been received.*

Result: *Reviews have been received and sent to Lechter along with our comments. He is working on a revised proposal.*

Action: *HG to inform Fabienne of the Div decision*

Result: *HG has informed Fabienne*

b. 2014-016-1 – Prohaska - Generation of a web-based platform for the creation and download of source-specific, tailor-made SNIF (Subcommittee on Natural Isotopic Fractionation) diagrams for selected elements (B, Cd, Mo, Se, Sr, U) after compilation of data published on the isotopic composition of natural and synthetic materials via crowdsourcing. Submitted to several divisions and committees.

This is a newly revised proposal which addressed the comment of the previous reviewers. This comment were in line with the comment received from the Division members (e.g. address additional environmentally-relevant elements) . The project main sponsor is Div II.

The proposal was discussed and it was agreed that the division will endorse it and offer \$1000 toward the project

Action: *LM and HG- Contact Fabienne with decision*

Result: *HG has informed Fabienne*

Note: Sherine Obare has a near final proposal ready to submit to the Secretariat

Chemical speciation of anthropogenic nanomaterials

7. Review of Current Project Reports - Status/Needs/Accomplishments-

HG provided a brief review of the active and completed projects. Full report is in **appendix 2**

HG also reported that she emailed all participants in the Last Division brainstorming meeting in Istanbul and a number of projects may be submitted soon.

Action: HG to follow these up

Result: in progress

8. Next Biennium Election and the Election Committee.

HG reported of the next biennium election timetable

LM reported that we need to form a committee for the election of the TMs and that Prof Nicola Senesi has offered to assist and chair the committee.

We will need the names of 3 outside members to serve on the committee.

Action: All Division members to propose members for the election committee and candidates for election

August 9, 2014

The day was dedicated to the subcommittee meetings

1. Subcommittee on Crop Protection Chemistry
2. Subcommittee on Chemical and Biophysical Processes in the Environment’.

The minutes for these meetings were provided by the Subcommittees Secretaries and attached in **appendices 3&4**

The Division met for an hour at the end of the day when the secretaries of the subcommittees reported back.

The meeting was closed at 17.30

Minute confirmed by the Division Committee at a conference call on 18/01/2015

Appendices

1. **Appendix 1:** McConnell San Fran Into Talk
2. **Appendix 2:** Division VI projects reports 2014
3. **Appendix 3:** Minutes of the meeting of the sub-committee “Chemical and Biophysical Processes in the Environment” in San Francisco, August 9, 2014
4. **Appendix 4:** Notes on the meeting of the Advisory Committee on Crop Protection Chemistry, San Francisco, 9 August 2014.