

**IUPAC COMMITTEE ON CHEMISTRY EDUCATION**  
**45th IUPAC GENERAL ASSEMBLY 2009**

Glasgow  
**DRAFT Minutes**

*Meeting times:*

- **Sunday, August 2** – 9:00–12:00 and 13:00–17:00
- **Monday, August 3** - 9:00–12:30,  
14:00 –17:30 (+CHEMRAWN+COCI) Symposium ethical issues
- **Tuesday, 9:00-17:00** – informal meeting time for working groups on IYC activities (coordinated by Mustafa Sözbilir and Tony Wright, CCE IYC Committee chairs).

*The supporting materials listed in parenthesis after some items can be downloaded from the IUPAC web site: <http://www.iupac.org/standing/cce/agenda09/>.*

**1. Welcome, introduction and orientation**

**[CCE2009\_001]**

**Attendees Sunday:**

**TMs:**

*Chair* Peter Mahaffy (Canada) *Secretary* Eva Åkesson (Sweden) Mei-Hung Chiu (China/Taipei) Choon H. Do (Korea) Ram S. Lamba (Puerto Rico) Lida Schoen (Netherlands) Mustafa Sözbilir (Turkey) Natalia P. Tarasova (Russia)

**AMs:**

A. James McQuillan (DIV I) Javier Garcia-Martinez (DIV II) Mary Garson (DIV III) Jean-Pierre Vairon (DIV IV) Roger M. Smith (DIV V) Hemda Garelick (DIV VI) Mukund S. Chorghade (DIV VII) Richard Hartshorn (DIV VIII) Maria Filomena new AM from div V afternoon

**NRs:**

Tony Wright (Australia) Ameen Farouk M. Fahmy (Egypt) Christiane Reiners (Germany) Liberato Cardellini (Italy) Masahiro Kamata (Japan) Erica Steenberg (South Africa) *Conference coordinator* Morton Z. Hoffman (United States)

**Young Observers:**

Oleh Demchuk (Poland) Stephanie Bumpus (United States) Mohammed Shoeb (Bangladesh) Miki Hasegawa (Japan) Daniel Rabinovich (United States)

**Guests:**

Temechegn Engida (Federation of African Societies of Chemistry) Jan Apotheker (Dutch Chemical society) Werner Mormann, div II (Germany) Boshra Mossaad Awad (Egypt) Nadia Kandile (Egypt) Thomas Tritton (CHF, USA) Tony Ashmore (UK) Lilianna Mammino (South Africa) David Evans (COCI) during Item 10 Tyler Coplen (DIVII) during Item 10 Chris Brouwer (CI) Fabienne Meyers

**Attendees Monday**

**TMs:**

*Chair* Peter Mahaffy (Canada) *Secretary* Eva Åkesson (Sweden) Mei-Hung Chiu (China/Taipei) Choon H. Do (Korea) Ram S. Lamba (Puerto Rico) Lida Schoen (Netherlands) Mustafa Sözbilir (Turkey) Natalia P. Tarasova (Russia)

**AM:s**

James McQuillan (DIV I) Assar Friedler (New AM DIVI) Javier Garcia-Martinez (DIV II) Roger M. Smith (DIV V) Richard Hartshorn (DIV VIII) Hemda Garelick (DIV VI) Marie Filomena (new AM DIVV), Mukund S. Chorghade (DIV VII) after coffee

NR:s

Tony Wright (Australia) Ameen Farouk M. Fahmy (Egypt) Christiane Reiners (Germany) Liberato Cardellini (Italy) Masahiro Kamata (Japan) Erica Steenberg (South Africa) *Conference coordinator* Morton S. Hoffman (United States)

Young Observers:

Oleh Demchuk (Poland)

Guests:

Temechegn Engida (Federation of African Societies of Chemistry) Jan Apotheker (Dutch Chemical society) Boshra Mossaad Awad (Egypt), Nadia Kandile (Egypt) Thomas Tritton (CHF, USA) Tony Ashmore (UK) Julia Hassler (UNESCO) Lilianna Mammino (South Africa) Janusz Lipowsky (Poland) Severio Florio (Italy) Francesco di Angelio (Italy), Jung Il Jin (IUPAC, president), Yonas Chebhde (Ethiopia), Soon Ting Kueh CHEMRAWN (Malaysia) Chris Brouwer (CI) Fabienne Meyers

Taiwan guests 2 personer....names?

*Welcome, introductions and presentation of all present participants.*

Logistics: Today, Sunday we will go through the agenda until item 10. We do assume everybody have read the material before coming here, so we ask all presenters to not repeat what is in your written reports in your oral presentation. Focus in the afternoon will on IYC2011; International year of Chemistry 2011. CCE meeting continues on Monday morning 9 am, with item 11. Coffee breaks will be daily 10:30 and 15:30. Sunday we will have joint lunch 12:30.

The expected outcome of our meeting is to leave with a good understanding with projects for IYC2011. CCE is also scheduled on Tuesday to work on IYC-projects, so please all fell welcome to participate. Monday afternoon, CCE will have a joint symposium with COCI, and Chemrawn on ethics. We strongly encourage everybody to attend.

*Agenda Approved*

2. **Minutes of meeting in Mauritius 2008,** [CCE2009\_002]  
*Minutes Approved.*
3. **Minutes of strategy meeting in Toronto, Canada 2009** [CCE2009\_003]  
Individual matters are taken later in the agenda.  
*Minutes Noted.*
4. **Matters arising from the minutes of CCE and strategy meeting and new Business**  
To consider matters arising that are not on the agenda  
a) Priorities for next biennium on Monday on item 13:3
5. **Chair's report to Council** [CCE2009\_005]

Chair gave a brief report. Attention to terms of reference. Current priorities will be revised on Monday. Please look at the current priorities and see if some should be dropped, revised or new ones adopted. Focus in the coming years will be on IYC2011. This report will be presented to the council on Wednesday by the CCE chair.

## **6. Subcommittee reports**

Presentation and discussion of past activities, membership, plans

### **6.1 Chemistry for Development (Mei-Hung Chiu) [CCE2009\_006.1]**

Brief report on administrative matters from the chair Mei-Hung Chiu.

PM: Thanks to the subcommittee and for successful work.

### **6.2 International Year of Chemistry (Sözbilir, Wright) [CCE2009\_006.2]**

It is needed to clarify members on the subcommittee. There are different names on different lists, it must be consistent.

**6.3 Coordination of IUPAC IYC activities with European Schoolnet and European Chemical Industry Council (Cefic).** Written report to be available at our meeting from Alexa Joyce (European Schoolnet) and Kevin Saidler (Cefic). See <http://www.eun.org> and [www.xperimania.net](http://www.xperimania.net) for examples of present activities.

**[CCE2009\_006.3]**

PM: PP presentation sent to us from Alexa Joyce. Alexa will come to Glasgow on Tuesday, and we will have possibilities to discuss collaborations CCE/IUPAC and European Schoolnet then.

**6.4 Coordination of IUPAC IYC activities with UNESCO.** Julia Hasler, UNESCO, and/or the chair will report orally.

Julia Hasler UNESCO, will be joining us tomorrow.

## **7. Report from Projects group (Choon Do) [CCE2009\_007]**

### **7.1. Membership,**

A brief report from Choon Do: CCE is very generous cooperation with other division, and co-sponsor several inter-divisional projects. Project group chair Choon Do will step down and new chair will be appointed.

PM: The membership in the committee will be revised. A special thanks to Jim McQuillan for his contributions to the project group. Thanks to the chair for a successful work.

### **7.2. Review procedure**

- 7.3. Project Budget
- 7.4. Completed projects
- 7.5. Current Projects
- 7.6. Projects under consideration
- 7.7. Future projects

## 8. Review of activities

### 8.1. International Year of Chemistry

IYC 2011 is an opportunity of a life time for us, and chemistry. IYC 2011 will be the focus for CCE activities the coming year. Whole afternoon will be dedicated to a break out session to transform ideas into project proposals. Tuesday is scheduled for the working groups to continue their work.

### 8.2. Flying Chemist Program (FCP) (Mei-Hung Chiu) **[CCE2009\_006.1]**

PP presentation given by Mei-Hung Chiu  
FCP, initiated 2005 by former chair Peter Atkins, provides resources to countries in order to reform chemistry education. It is an outreach program from CCE with focus on developing countries. Travel cost is provided within the program, the rest should be covered by the host. Proposals for new FCPs are being prepared: Croatia 2010, Ethiopia 2011.

NICE: Network for inter Asian chemistry educators.  
Meeting on a biannual basis and the last meeting was in Tokyo with 50 participants.

Collaboration CCE, IUPAC, ACEN, FACS.  
Give scholarships. Purpose to engage the young generation in our community.

Collaboration CCE, IUAPC and NARST  
A book on Marie Curie and science learning for the celebration of the International Year of Chemistry.

New project:  
Web based resources – many volunteers!

PM: Mei-Hung Chiu's work is really inspiring to all of us. Thank you for all your efforts.

### 8.3. YAC Program (Lida Schoen) **[CCE2009\_008.3abc]**

YAC, Young ambassadors for chemistry. PP-presentation of Lida Schoen.  
Aim to promote chemistry by making teachers, students, public and decision makers aware that chemistry is an important part of society.  
New project for evaluation of YAC. Erica Steenberg and Mei Hung gave brief report on the evaluation project.

PM: Thanks to Lida Schoen and her team for the wonderful work!

#### **8.4. UN Decade for Education for Sustainable Development (Natalia Tarasova)**

PP presentation by Natalia Tarasova.

Water and education equal importance according to UNESCO.

Portal: [www.unesco.org/education/](http://www.unesco.org/education/)

Recommendation: EOLSS Encyclopedia of life support system

#### **8.5. Relationship with Chemical Heritage Foundation, USA (Peter Mahaffy)**

CCE met at CHF office in Philadelphia last year for a strategy meeting.

CCE contact point with CHF: Philippe Boesch.

Thomas Tritton president of CHF:

CHF does everything, except chemistry experiments! Collects artifacts:

Books, instruments, stamps, art and make it available to the public. We have lots of visitors to the museum. CHF has 40 affiliate organizations and IUPAC is one.

CHF wants to cooperate with CCE/IUPAC in relation to IYC 2011.

#### **8.6. OPCW Collaborations**

PM gave a brief status report. The collaboration with OPCW (Organization for Prohibition of Chemical Weapons) is ongoing. The project "Multiple uses of chemicals" resulted in the creation of webpage and material available at IUPAC's homepage. Alistair Hay will be here tomorrow and participating in joint symposium on ethics with COCI and Chemrawn

#### **8.7. Activities at Glasgow Congress –Chemistry Education Sessions, Workshops, Round Table**

N/A

#### **8.8. Future activities**

N/A

#### **8.9. Follow-up from the break-out session in Mauritius**

Learning outcomes: Draft proposal for a projects

Green chemistry: Poor response back, did not take off, try to get it going on Tuesday

IYC: Subcommittee is working

Policy Project: Application approved, the group will have a meeting in Glasgow.

### **9. Interaction with Divisions and Standing Committees**

### 9.1. Oral report from Chair and Divisional Liaison Officer (Eva Åkesson)

We have visited all divisions with a positive response and constructive discussions. We do notice an increased collaboration between CCE - divisions and an increased emphasize education from the divisions. Several suggestions for activities for the IYC 2011 have been transmitted to our subcommittee. AM:s are more active within CCE.

### 9.2. Contributions from Divisional Representatives [CCE2009\_010.2 Div I, CCE2009\_010.2 Div III and CCE2009\_010.2 Div VIII]

DIVI: Oral and written report from Jim McQuillan. Two joint projects.

DIVII: Oral and written report from Javier Garcia-Martinez.  
Isotope table-project PP-presented by Tyler Coplen

DIVIII: Oral and written report from Mary Garson and PP-presentation

DIVIV: Oral report and PP- presentation from Werner Mormann, written report from Jean Pierre Vairon

DIVV: Oral report from Roger Smith

DIVVI: Oral and written report from Hemda Garelick, want to develop a project on Lifelong learning.

DIVVII: Oral report from the CCE liaison division officer, oral report from Mukund Chorghade

DIVVIII: Oral and written report from Richard Hartshorn, asking for feedback on the Principles of IUPAC nomenclature in particular chapter 4-9, also on the new chapters if they are overdone, or should be compressed.

### 9.3. Contributions from Standing Committee Representatives (COCI, CHEMRAWN)

PP-presentation by David Evans, COCI

Difference between hazard and risk.

Recommendation: Ben Goldacre: Bad Science

## 10. ICCE programme (on Monday)

10.1. 20<sup>th</sup> ICCE Mauritius 2008 [CCE2009\_011.1]  
Highlights and statistics

Presentation by PM.

10.2. Conference report - Future ICCE venues [CCE2009\_011.2]

Presentation by the conference coordinator:  
2012 Europe  
2014 North America (decided GA 2011 express of interest 2010)  
2016 Open, can be Europe

**10.3.** 21<sup>st</sup> ICCE Taiwan 2010 **[CCE2009\_011.3, forthcoming]**  
**10.3.1.** Planning of CCE meeting Taiwan

PP-presentation from Mei-Hung Chiu.  
Conference dates: 8-13 August 2010  
10 plenary lectures scheduled.  
CCE meeting will be on Sunday and Wednesday evening after the conference tour.  
Fee: 420 USD before 15 august

See you all in Taipei 2010!

**10.4.** Selection of location of 22<sup>nd</sup> ICCE 2012

**10.4.1.** Poland submission **[CCE2009\_011.4.1]**

20 min presentation and 10 min discussions  
Janusz Lipowsky Poland, pp-presentation and handout of memory sticks with materials.

**10.4.2.** Italy submission **[CCE2009\_011.4.2]**

20 min presentation and 10 min discussions  
Liberato Cardellini, Italy

Both were asked to leave the room during the committee discussion and voting procedure.

Members of the CCE eligible to vote, i.e. TM, NR and AM.

The submission from Italy got a majority of the votes.

The CCE do encourage Poland to bid again for forthcoming ICCE.

**10.5.** Considerations for 2012 and beyond  
Presentation by the conference coordinator  
2012 Europe  
2014 North America preference (decided GA 2011 express of interest 2010)  
2016 Open, can be Europe

## 10.6. Other Educational Conferences

Quick list from Mort  
2010  
ACS march  
Canadian  
Third world conf Estonia  
Research and didactic Krakow  
Texas  
ICCE Taipei  
ACS Boston  
Euchem Nurnberg  
Pacificchem Honolulu  
Jordan

Call from Mort, send what you do know. List will be posted on CCE website.

## 11. Administrative matters

### a) Finance

Project budget: 20 000 \$ one project left in budget

Operating budget: 18 300 \$ fully expended

### b) Membership – Officers, Subcommittee Chairs, TM appointments, Conference Coordinator **[CCE2009\_001]**

No vacancies, No new openings for TM next period, Lida and Ram continue, at least for the next two years.

Put together an advisory board

Process procedure different than division. Appointed by IUPAC president.

Conversation with the president concerning the procedure, want an advisory committee.

Appoint a small advisory committee to recommend a procedure for membership.

Turnover is important.

## 12. Other business

### 12.1. Request re laboratory manuals for Kabul University **[CCE2009\_013.1]**

Project proposal ought to be written. Refer to CCE project group to see if it can be transferred into a project. Ram takes care of it. Liberato maybe be involved.

No internet in Kabul.

### 12.2. Reports from countries (Belgium, USA, Italy) **[CCE2009\_013.2]**

Oral report from Egypt, SATL



NICE report from Masahiro Kamata pp-presentation  
World economic forum, Global Education Initiative - presentation by Javier Garcia- Martinez

- 12.3.** Priorities for next biennium (on Monday) see CCE2009\_005  
Revised version of the priorities presented by Peter Mahaffy.  
Discussion among the CCE:  
What are the big goals? Address global problems, global education, and chemistry appreciation and understanding. Diversity is richness. Establish guidelines, cannot tell a country what to do. Broader language accepted by everyone  
Also to look of specific problem in different countries, reveal diversity.  
Global education is not equal. Just a frame, diversity within the frame.

The chair proposed the following draft statement of CCE priorities for the 2010-2011 Biennium, and noted that our CCE project group developing a framework to guide CCE priorities and activities will report in Taipei. Their report may be helpful in refining our priorities:

- (a) To maintain a primary focus on working with other partners and stakeholders to implement the International Year of Chemistry
- (b) To foreground the importance of learner-centred chemistry curriculum and education, both in the developed and developing world. The extent to which this is done should be one criterion used to assess educational projects.
- (c) To give priority to initiatives that highlight the relationship between chemistry and sustainable development, consistent with the goals of the IYC and the UN Decade for Education for Sustainable Development.
- (d) To build chemistry education networks, using fully the multicultural competence within CCE.
- (e) The biennial International Conferences on Chemistry Education are flagship activities for CCE. We seek to more fully integrate ICCE activities into the work of CCE and use ICCE conferences to report the outcomes of CCE projects and bring participants together to implement CCE strategies
- (f) To continue to support initiatives that raise awareness and understanding of ethical issues that are important in chemistry.

**12.4.**

Julia Hasler, UNESCO and IYC 2011

Short oral report from JH

Idea of twinning with partners from developing countries

**13. Break out session (Sunday afternoon)**

Learning outcome:

All members have demonstrated ability to identify, formulate and plan joint projects within CCE to be realized during International Year of Chemistry 2011.

During Sunday afternoon 14:30 - 17:00

Introduction of Peter Mahaffy, pp-presentation

Possibilities for Projects Tony Wright (co-chair of the subcommittee)  
Discussions about several possibilities and many suggestions.

4 groups:

- Global experiments – Tony W
- History of chemistry- theories – Christiane
- Chemistry days/weeks –Mustafa
- General Public Daniel Rabinovich

Miki Hasegawa: Children's book

Alexa's pp-presentation European school net

Send to [sozbilir@atauni.edu.tr](mailto:sozbilir@atauni.edu.tr) if you have a chemistry day or week in your country.

#### **14. Next meeting**

Next meeting of CCE will take place during the Taiwan ICCE, August 2010

Sunday 8 August 2010 full day meeting prior to the meeting, and Wednesday

THANKS from the chair to all you, the passion and all the work, thank you for attendance.

**Eva Åkesson, Secretary,**  
**Peter Mahaffy, Chair**  
**August, 2009**