

**COMMITTEE ON CHEMISTRY EDUCATION**  
**44th IUPAC GENERAL ASSEMBLY 2007**  
Università di Torino, Politecnico di Torino  
Lingotto Complex, Torino, Italy

**MINUTES DRAFT**

*Meeting times:*

Monday, August 6, 9:00–12:30 and 14:00–17:30

Tuesday, August 7, 9:00–12:30, 14:00 –17:30 (+CHEMRAWN+COCI)

*Please note that the supporting materials listed in parenthesis after some items can be downloaded from the IUPAC web site:*

<http://www.iupac.org/standing/cce/agenda07/>

**1. Welcome, introduction and orientation**

Welcome address from the chair, Peter Mahaffy:

We are gathered together for two days and it is wonderful to meet old friends and make new friends. As you might have noticed this is a meeting with many TLA's, three letter acronyms. We all wear different hats. But as TMs, AMs, NRs and young observers on this CCE meeting here, it is the CCE hat on, and we will work together in these two days. Why we here and what are the goals? What is IUPAC about in education, globally and nationally? Which challenges and opportunities are we best positioned to address. Where can IUPAC add value and how we use our multicultural competence? We will start off with reviewing activities to have a sense of what we have done and celebrate our successes. We will then map out the terrain, by reviewing our strategic priorities as laid out in the report to the Council (see item 5). In the afternoon we will focus on future activities, and have breakout sessions tomorrow in groups, in order to transfer good ideas into projects. We have two sub committees, Chemistry Education for Development (CED) and Public understanding of chemistry (PUC). We will question the current structure; do we need new subcommittees and new areas identified? Please be creative!

Presentation and a short introduction of all participants.

**Present August 6:**

Titular members, TMs:

Peter Mahaffy (chair), Eva Åkesson (secretary), Choon Do, Masato Ito, Natalia Tarasova, Lida Schoen, Ram Lamba, Warren Beasley

National representatives, NRs:

Liberato Cardellini (Italy), Mei-Hung Chiu (Taiwan), Masahiro Kamata (Japan), Kristina Edström (Sweden), Erica Steenberg (South Africa), Brandt Ludo (Belgium), Mordichai Livneh (Israel), Morton Hoffman (USA), Boesch (Switzerland), Terry Mitchell (Germany)

Associate members, AMs:

James McQuillan (Div I), Leonard Interrante and Javier Garcia-Martinez (Div II), Maria Fatima das Silva (Div III), Jean-Pierre Vairon (Div IV), Roger Smith (Div V), Donald Wauchoupe and Hemda Garelick (Div VI), Mukund Chorgade (Div VII), Richard Hartshorn (Div VIII)

Young Observers:

Mike Scott (USA), Euen Kay (UK)

Guests:

Colin Osborne (UK), Jeremy Frey (Div I), Roberto Marquardt (Div I) Alastair Hay (UK), Neil Gusman (CHF), Edwin Becker (USA),

### **Apologies/Sending regrets**

Anthony Ashmore

John Bradley

Miklos Riedel

### **Present: 7 August 9:00–12:30**

TMs: Peter Mahaffy (chair), Eva Åkesson (secretary), Choon Do, Masato Ito, Natalia Tarasova, Lida Schoen, Ram Lamba, Warren Beasley

NRs: Liberato Cardellini (Italy), Mei-Hung Chiu (Taiwan), Masahiro Kamata (Japan), Kristina Edström (Sweden), Erica Steenberg (South Africa), Teri Mitchell (Germany), Morton Hoffman (USA), Livned Mordichai (Israel), Ludo Brandt (Belgium, Masahiro Kamata ((Japan), Teri Mithcell (Germany)

AMs: James McQuillan (Div I), Javier Garcia- Marinez (Div II), Maria da Silva (Div III), Roger Smith (Div V), Hemda Garelick (Div VI), Mukund Chorgade (Div VII),

Young observers: Ponnadurai Ramasami (Mauritius)

Guests: Colin Osborne (UK), Graham Pearson (UK)

### **2. Minutes of meeting in Seoul, Korea August 2006**

[\[CCE2007\\_002 Seoul 2006 CCE Minutes.pdf\]](#)

Minutes approved

### **3. Minutes of strategy meeting in Paris, France March 2007**

[\[CCE2007\\_003 2007 CCE Strategy Meeting Minutes.pdf\]](#)

Minutes noted

Remove the note “draft” on the first page.

### **4. Matters arising from the minutes of CCE and strategy meeting and new Business**

N/A

Agenda approved

### **5. Chairman’s report to Council**

[\[CCE2007\\_005 - CCE Report to Council.pdf\]](#)

Peter Mahaffy, gave a summary, highlighting some items from the report to the Council. The priority areas will be focus for the group discussion in the breakout session tomorrow.

1. Learner centred chemistry curriculum,  
Learner centred curriculum ought to be a criterion to assess projects. Suggestion to have an ICCE-session with the theme learner centred chemistry curriculum.

2. Chemistry and sustainable development

Natalia Tarasova reports on Responsible Stewardship Started in Oxford, together with the Organization for the Prohibition of Chemical Weapons, OPCW, and is important for this part (i.e. former Soviet republics) of the world. The project has a focus on multiple uses of chemicals. We have young and very qualified people but they do not have enough ethical considerations. Younger generations do not know their responsibility and ethics. The knowledge can be misused. Main idea of this project is to share thoughts how to educate in this area; how to teach ethics. At the upcoming Mendeleev Congress, there will be 30 oral presentation and 70 posters, with total number of 3000 participants. Chemistry and Sustainable Development will be featured in a Symposium at the conference.

### 3. Ethical concerns

Should've – Play at the opening of the Congress.

CCE collaboration with the Organization for the Prohibition of Chemical Weapons, OPCW, on raising awareness of multiple uses of chemicals. Alistair Hay will come later.

### 4. Public Understanding of Chemistry, PUC

This has been a major focus for CCE, and the main role for CCE is to help IUPAC to identify their niche. One conclusion is that the focus has to be more on helping chemists to understand the public. The project report is accepted for publication in Pure & Applied Chemistry, Jan. 2008. What will CCE do next on this matter? This will be a part of the joint session tomorrow afternoon with COCI and CHEMRAWN.

### 5. International year of chemistry, IYOC 2011

First intention was year 2009, but this year was already spoken for, so 2011 is considered to be better. In year 2011 there will be a General Assembly and celebration of the 100<sup>th</sup> anniversary of the awarding of the Nobel Prize in Chemistry to Marie Curie, which can give a focus on women in chemistry.

### 6. ICCE

ICCE, International Conference on Chemical Education, is centrally important to CCE. But it is important to state that ICCE is locally organised, and we (CCE) assist the local organisers.

## 6. Subcommittee reports

Presentation and discussion of past activities, membership, plans

### 6.1. Chemistry Education for Development; CED

Material was handed out at the meeting:

Activities of Subcommittee on chemistry education for development on chemistry education and appendix A-F. [CCE2007\_006.1]

Short report of the activities from the subcommittee chair, Mei-Hung Chiu:

- FCP Philippines:

Focus towards learner centred curriculum and the tertiary level. There is a limited budget and the number of invited resource persons was cut down. Note that CCE only supports the flight ticket; the local host pays the rest for the Flying chemist.

General information on Inter Asia NICE symposium and presentation of a charter developed last week, see appendix D and E. Mei-Hung Chiu will make a summary for CI.

- Evaluation of Young Ambassadors for Chemistry, YAC:  
Lida Schoen and Mei-Hung Chiu are working on the revision of the project proposal.

- UNESCO - resource book,  
Background: A handbook for chemistry teachers that is outdated; this is a potential project involving Livneh Mordechai and other CCE members.

- Ideas put forward from CED:  
Bursaries for young teachers to attend ICCE. Invite the IUPAC prize winners to give a public lecture. These proposals will be include in upcoming ICCE discussion.

#### 6.1.1. List of procedures for Flying Chemist Program (FCP)

Proposal for discussion (Material handed out at the meeting (appendix B).

The application procedures for Flying Chemist program.

Comments and suggestions:

Focus not only on research. Rephrase prefer to visit and add language fluency. Try to be more precise and clearer in the procedure to help the applicant.

Any more comments please do send them to Mei-Hung.

Action: The subcommittee, CED, will revise the procedure and put them up on the web as soon as possible.

The chair, PM, acknowledges a successful program which Ram Lamba and the former chair Peter Atkins launched. The chair also thanks Mei-Hung and the CED subcommittee for their excellent and enthusiastic work.

#### 6.2. Public Understanding of Chemistry, PUC

The subcommittee chair, Tony Ashmore not present.

PUC activities are summarized in the report to the council and will also later be address under the Item international year of chemistry. No separate report will be given here.

### **7. Report from Projects group (Choon Do)**

[[CCE2007\\_007 - Project Group Report.pdf](#) ]

#### 7.1. Membership, expansion of the Project group

Three new members has agreed to participate in the Project group

New members:

- James McQuillan
- Masato Kamata
- Kristina Edström

The expansion of the group is approved by the meeting.

#### 7.2. Review procedure

See attachment for clarification and information. [CCE2007\\_007 - Project Group Report.pdf](#)

Changes in the review procedure:

Do not send replies with your evaluation of the project applications to all of the other members in the project group; send it only to Fabienne Myers. This is to ensure an independent assessment of the applications from all of the members. The group was asked by the chair to be alert to project that stalled and work together with Fabienne on this issue.

Choon Do will participate in a tutorial session on project procedures within IUAPC tomorrow.

The chair, PM, encouraged the project group to have a meeting to introduce newcomers within the group.

#### 7.3. Project Budget

USD 20 000 per two years. The project group can send an application further on to IUPAC project committee. It is often joint funding of projects between CCE and IUPAC.

#### 7.4. Completed projects

Report from the subcommittee chair see [\[CCE2007\\_007 - Project Group Report.pdf\]](#)

#### 7.5. Current Projects

Report from the subcommittee chair see [\[CCE2007\\_007 - Project Group Report.pdf\]](#)

#### 7.6. Projects under consideration

Report from the subcommittee chair see [\[CCE2007\\_007 - Project Group Report.pdf\]](#)

#### 7.7. Future projects

To be addressed at the breakout session.

Thanks from the chair to the Project group for their excellent work.

### 8. Review of activities

#### 8.1. YAC, Young Ambassadors for Chemistry Program (Lida Schoen)

[\[CCE2007\\_008.1 - YAC Report.pdf\]](#) [CCE-YAC.pdf]

Nice and comprehensive report and a PP presentation of Lida Schoen. The project works with a train the trainers' model. This a joint project between IUPAC and SAW, Science across the World. One major sponsor is GlaxoSmithKline. A project proposal has been submitted: Research based evaluation of the YAC project. Lida Schoen and Mei-Hung Chiu are currently working with the revision of the project proposal.

#### 8.2. Russian Clearing House

Natalia Tarasova gave brief update, the project is completed but activities continue. The idea was to translate IUPAC material into Russian since not everybody speaks English and must have translation. Automatic translation is widely used in the Russian clearing house, and the clearing house project has become self supporting.

#### 8.3. DIDAC

(See also [CCE2007\\_008.11 - Belgium Report & DIDAC.pdf](#))

DIDAC is a package of about 320 illustrations for chemistry teaching, originally designed and composed by the Belgian Agfa - Gevaert Company with support of a group of chemistry teachers of the Royal Flemish Chemical Society .DIDAC has been promoted in several countries through the UNESCO – network agreement with IUPAC and AGFA-GEVAERT. DIDAC existed originally as a package of viewgraphs, later on as a Cd-rom , and is since 2005 also available for free use on the worldwide internet

No data concerning data collection and dissemination.

The material is free for all educators to use without profit. Can it be used as illustrations in book? A clear statement is needed from IUPAC.

Action: Ludo Brandt makes a draft of a statement send to chair, Peter Mahaffy.  
The statement will be posted on the web site:

#### 8.4. Microscale (John Bradley)

John Bradley is not attending the meeting but sent in a report [[CCE2007\\_008.4 - Microscale Report.pdf](#)]

Microscale and DIDAC are paired up in many countries.

UNESCO suggests that CCE may be able to help with a review of approaches to microscale in the projects they support. The aim is to review the state of the microscale projects, how safe and how up to date they are, with a special focus on green chemistry. Livneh Mordechai volunteers to contribute, along with Natalia Tarasova and Erica Steenberg.

#### 8.5. International year of chemistry 2011, IYOC 2011

IYOC 2011 is one of the topics in tomorrow's breakout session. Natalia Tarasova participated in a meeting in Paris and gave an update of the current process. In September UNESCO will have meeting, UNESCO General Conference, where the endorsement of an international year of chemistry 2011 must be on the agenda. We will need support from national adhering organizations and national chemical societies. To get the support we must create a template so you can go to your NAOs and UNESCO body and give them the template for to use and send. The next step following UNESCO is to go to UN.

#### 8.6 UN Decade for Education for Sustainable Development (Natalia Tarasova)

This is a priority area for CCE. It is also a European strategy and an important high level meeting of EU will be held in October were the issue will be addressed.

#### 8.7 Chemists without Borders [[CCE2007\\_008.7 - Chemists without borders.pdf](#)]

This item was send to CCE for information. Chair wrote back and suggests that IUPAC might partner, and that CCE will start a dialogue with Chemists without Borders.

Can we provide some assistance with for example mentors? Teri Mitchell volunteers to send information to retired professor's network in Germany to find potential mentors.

Morton Hoffman emphasise that we need to find out more.

Suggestion from CCE: Let them have an article in CI. We can invite them to Mauritius.

Action: Warren Beasley will find out more about Chemists without Borders, and the chair continues the dialogue.

#### 8.8 Relationship with Chemical Heritage Foundation, CHF, USA [[CCE2007\\_008.8 CHF Background & IUPAC Collaboration.pdf](#)]

Neil Gusman (communication director) and Ted Becker (representing IUPAC on CHF Board) from CHF participated in the CCE meeting.

Ted and Neil gave a short introduction and background about Chemical Heritage Foundation. Chemical Heritage Foundation (CHF) is an IUPAC affiliate member. He stressed that they will put in more effort to internationalise, it has been too much US focus so far. We want to discuss with CCE. Please come and look at our display at the booths. We do have teaching resources on the web and we are developing teaching resources. We can offer resources to IUPAC, like historical resources, expertise in communication to the public, visiting scholars, etc.

Morton Hoffman suggests a link on the IUPAC/CCE website to CHF

Boesch: Suggest organizing an internal conference or symposium on a history in a chemical ed conference.

CCE should build a collaboration with CHF and next CCE strategy meeting could be at CHF in Philadelphia next spring.

The chair expresses his thanks to Neil and Ted for coming!

8.9 Collaborations with OPCW, Organization for the Prohibition of Chemical Weapons,

A brief report on the project from Alistair Hay.

Chemists are an important target group for OPCW . Collaboration with CCE started 2 years ago at a joint meeting in Oxford. The project focus is to produce educational material for chemists. So far four papers has been produced and translated into web-based format, designed to be used by teachers. The project is now done and is available on the web and will also be on the IUPAC website after the General Assembly. A brochure was distributed with information of the newly developed web site. ([www.kcvs.ca/multiple/index.html](http://www.kcvs.ca/multiple/index.html)) Please give your feedback to Alistair and Peter Mahaffy. CHF can link to this webpage; here is a clear basis for further collaboration.

Pending project proposal:

Graham Pearson comes tomorrow, and there will a group discussion on Code of conduct for chemists.

8.10 Activities at Torino Congress – Should've, Chemistry Education Sessions, Workshops, Round Table.

Brief information from the chair, Peter Mahaffy.

8.11 Future activities, reports from the National Representatives, NRs

For national reports please see attachments labelled [CCE2007-008.11] on the website.

Ludo Brandt, Belgium. [CCE2007\\_008.11 - Belgium Report & DIDAC.pdf](#)

Focus on item 11 in the report: Promotion and integration sustainable and green chemistry. This is not integrated in the school and books.

Kristina Edström, Sweden: [Report from Sweden and the CCE activities.pdf]

Focus on bullet 3 in the report handed out at the meeting. More focus into teacher training, creating new position, post-doc.

Erica Steenberg, South Africa

Curriculum reform, teachers not well equipped.

Masahiro Kamata Japan

Liberato Cardellini, Italy [CCE2007\\_008.11 - Cardellini Italy Report.pdf](#)  
Develop projects good practice for ordinary teaching.

Miklos Riedel Hungary, [CCE2007\\_008.11 - Miklos Hungary Report.pdf](#)  
Reidel not present at the meeting, but sent a report, special thanks to Riedel from CCE for this engagement! Send a note of thanks.

Teri Mitchell, Germany, oral report, written will come later.  
Informed us about his article in CI about the Eurobachelor

Boesch, Switzerland:

In the frame of teaching chemistry with resources from the history of chemistry, I agree that an international meeting would be useful. The French (club d'histoire de la chimie, Paris), the German (Uni. Karlsruhe for example) and the Russian has beautiful documents. For the Swiss gymnasia level we have published 9 big posters about the life, the history and the chemical concepts of Dimitri Ivanovitch Mendeleeff (DIM) in French and perhaps soon in German. The second periodical table of 1871 (2m x 1.6m) was edited. This is not a copy but a facsimile rebuilt with old Cyrillic characters. The first one (1869) in French and Russian is on the posters. All this in closed cooperation with Igor Dmitriev, Prof. at the Univ. of St-Petersburg and Director of the Archives DIM in the same city. He gave two lectures for the teachers of Chemistry in Switzerland last March, exactly 100 years after the death of DIM. I think that we have to identify, select and publish a set of very important historical documents on a worldwide scale. The goal of all this is of course to improve the teaching of general chemistry.

Ram Lamba, Puerto Rico:

A shift from outcome perspective instead of input perspective. The overall study time is prolonged. The school level is too low now, but the university standard is still high. Teacher training is getting more important.

Morton Z. Hoffman United States (Boston University), National Representative to CCE

The American Chemical Society (ACS), its committees, technical divisions, and publications play an important role in maintaining and advancing the culture of chemical education in the U.S. through the production of materials across the educational spectrum, outreach to high school teachers, the encouragement of research in educational practices and teaching and learning, and by working to reflect the changes that are taking place within chemistry and the other molecular sciences in curricular content and pedagogical approaches. An important step is the proposed revision of the Committee on Professional Training (CPT) guidelines for the approval of departmental chemistry programs and the certification of their bachelor graduates by the ACS.

The present (2003) guidelines specify minima in the number of faculty members, number and type of equipment and instrumentation, and range of library holdings and on-line subscriptions, and provides the following curricular model for the chemistry major with specified minimum number of credits and laboratory hours: general chemistry; core courses in analytical, inorganic, organic, biochemistry, and calculus- and physics-based physical chemistry; advanced courses that may include undergraduate research. In addition to the required chemistry degree, other degree options in biochemistry, chemical physics, environmental chemistry, materials, polymers, and chemical education can be established.

The proposed revised guidelines, which will probably be approved by the ACS Council in 2008 and will be implemented within the next 3-5 years, continue to specify minima as before, but also



make recommendations about pedagogy, general chemistry, foundation courses (the equivalent of one-semester courses in each of the five major areas of chemistry), in-depth courses (the equivalent of four one-semester courses that build on the foundation, laboratory experience that may include undergraduate research, and cognate courses. Degree tracks, which are specialized, department-designed curricula that meet the foundation, in-depth, and laboratory requirements, may be in chemistry, a specific chemistry subdiscipline, or chemistry-related multidisciplinary area. The proposed guidelines emphasize the development of skills by the students that will allow them to become effective and productive scientists, and successful professionals: problem solving, chemical literature, laboratory safety, communication, and teamwork. Ethics must be exemplified at every turn, and student mentoring and advising are recognized as central to student achievement. Finally, approved programs will have to have established processes whereby these student skills are assessed.

The proposed revised guidelines can be downloaded from the ACS website  
<<http://www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=education\cpt\index.html>>.

Becker 008.10 labelled : [CCE2007\\_008.11 - OPCW Project and CSP.pdf](#)

As an outcome of IUPAC's projects with the Organization for Prohibition of Chemical Weapons, we were approached by the Chemical Security Engagement Program [CSP] of the US Department of State to organize a workshop on *Chemical Safety and Security in the 21st Century*. This workshop will be held in Kuala Lumpur, Malaysia on August 26, immediately after the 12th Asian Chemical Congress, under IUPAC Project 2007-021-1-020. The CSP is a new program that complements the work of OPCW, which is focused on state programs, rather than terrorist threats. CSP's initial approaches are to engage governments in pilot countries and to enlist the help of professional organizations, such as IUPAC and national chemical societies. CSP would like to provide training for chemical personnel in priority countries to.

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

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

The Chair and Divisional Liaison Officer have visited all eight divisions during the General Assembly to present CCE and the CCE report to the Council [CCE2007\_005]. Some of the projects and priorities for the future were highlighted, like YAC, International year of chemistry, 20<sup>th</sup> ICCE and learner centred education. Future collaboration and joint projects were discussed. In general, the visits were received in a very positive way and generated contacts and interaction with several divisional members, in particular afterwards the meetings. CCE is also most grateful for the excellent turnout and contributions from AMs at the CCE meetings.

### **9.2. Contributions from Divisional Representatives**

Division I Physical and biophysical chemistry  
James McQuillan and Jeremy Frey

Project on a lighter version of the green book, aimed at undergraduate level. Resource people are needed for this task. Eva and Kristina will check out if some are willing to help out in Sweden.

Short presentation of the joint project on Vibrational spectroscopy.

Suggestion from young observers; have something like exchange between sister departments, focus developing countries. IUPAC could promote such linkage.

Division II Inorganic chemistry; Leonard Interrante and Javier Garcia  
PP- presentation Javier Garcia about Mendeleev's year

Two projects presented:

- Materials for teaching high temperature materials chemistry at universities.
- Towards defining materials chemistry

PM suggested a potential project proposal about isotope periodic table and asked if anybody want to be involved? Roger Smith from div 5 interested in the project

Division III Organic and biomolecular chemistry; Maria da Silva

Division IV Polymer; Jean-Pierre Vairon  
Report from the sub-committee chair on Polymer education

- 3 conferences devoted to education
- Educational material for the French speaking countries
- IUPAC sponsored CD on Polymer education
- Polymer education website
- Teaching video clips
- Boosting the polymer education in Africa

Choon Do is a member of the committee and will participate in the meeting Monday evening.

Division V Analytical chemistry; Roger Smith  
Smith gave a PP presentation  
Orange book, terminology, available on the web.

- Traceability
- Database on solubility constants
- Sampling and sample handling

Suggestion for CCE collaboration to check the level, is it understandable?

Division VI Chemistry and the environment: Donald Wauchoupe and Hemda Cardick

Nicola Senesi is new Division President

Subcommittees of Div. VI

- Food Chemistry
- Crop Protection (pesticide) Chemistry
- Soil Chemistry
- Environmental Compartmental Chemistry (atmosphere, soil, water)

Current and Developing Projects: (some titles paraphrased--see web site for details and status)

- Bioavailability of chemicals in soils and sediments
- Global information on pesticides (with FAO—INFOCRIS web site)

- Reference Standard Soils for Europe
- Global regulation of food safety in Minor Crops
- Central/South America training in food analytical chemistry
- Beijing meeting on pesticide safety—Oct.
- Pesticide Risk assessment for developing Countries (simulation modeling)
- Agricultural atmospheric emissions
- “What is dietary fiber”?
- Indian Pesticide Safety Workshop, Delhi (2008)
- Arsenic remediation in drinking water

Thanks for the visit to our Division meeting from Peter and Eva; We appreciated it and hope that some joint projects will develop

Probable overlap: some of us are educators, but most are government/industry/regulatory researchers with potential useful expertise, particularly on some issues of public concern. We are experienced with dealing with public perceptions and may be able to offer useful insights as the Committee (and IUPAC as a whole) continue to address the public perception of chemistry.

Hemda Garelick will be liaison next biennium. She brings specific interests and enthusiasm to this work and will I am sure help us develop this relationship in fruitful directions.

Division VII Chemistry and human health: Mukund Chorgade

A short update on the project, much industry involvement.

In general: we need to collaborate with CCE. Greatly value CCE expertise! Need the help of the teachers

- New sets of glossary, the division lack the adequate forum for dissemination, and want collaboration with CCE.
- Undertaking natural medicine, 200 page reviews.
- Need to incorporate GLP, good laboratory practice
- Crying need for help in western world enrolment are declining, YAC is needed in Boston too.

Division VIII Chemical nomenclature and structure representation: Richard Hartshorn

1. Make a plea; please ask/contact all writers to look at the colour books when writing! There are many mistake in text book, we can review nomenclature!

2. Input on level. Can we consult you on the level? We need guidance

3. Guide to presents structural presentation

Lida needs help on Thursday, cosmetic industries have their own names on substances, and can you help? Yes.

Common theme from most divisions: Help with books and the level.

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

To consider opportunities for collaboration. This item will be developed at the joint meeting of the three committees. CCE is invited to make preliminary suggestions.

## 10. ICCE programme

### 10.1. 19th ICCE Seoul 2006 (Choon Do)

Highlights and statistics

370 participants from 38 countries made the conference a successful event.

### 10.2. 20th ICCE Mauritius, 3 to 9 August 2008 (Ramasami Ponnadurai)

Update and status report from Ramasami Ponnadurai:

The Virtual conference fee will be 75 \$ (and give a 50\$ reduction in participating in ICCE)

ICCE Suggested Registration Fees:

550 \$ with all meals included

300 \$ Student participants

300 \$ African participants

10% reduction for IUPAC members

400 \$ accompanying persons

(Note: These rates have been lowered subsequent to the meeting)

Travel: Special airfares will be given by Air Mauritius

Accommodation:

220 \$ at hotel Meridien

140 \$ and down to 20 \$

Ramasami Ponnadurai needs help with sponsors! Many sponsors and regular participants can sponsor more African participants.

Discussion concerning the conference themes. Suggested additional themes: Learner centred education. Discussion concerning the cost; a lower fee and a package for meals instead was suggested. These issues will be discussed on the meeting for the advisory committee.

#### 10.2.1. Satellite meeting in Kenya

Satellite meeting 11-12 August in Nairobi,

Themes: ICT, Low cost – Bradley, Public image of chemistry – Atkins

#### 10.2.2. Planning of CCE meeting in Mauritius,

Sunday, 3<sup>rd</sup> August 2008, the opening day of the conference, there will be a full day CCE meeting. Please, take this into account in your travelling plans.

### 10.3. Future ICCE venues (Warren Beasley)

The conference coordinator: It is difficult to get nominations for future conferences.

Selection of location of 21st ICCE 2010

Candidates: Taiwan, New Zealand (Withdrawn for 2010)

Previous ICCE locations:

Cairo, Budapest, Beijing, Istanbul, Seoul

PP-Presentation from Mei-Hung Chiu concerning the application from Taipei, Taiwan to host the August 2010 ICCE. Globalisation a major theme of the conference, communication and considerations for 2012 and beyond. Conference chairman: Lee, a Nobel laureate. Counting on 500-600 participants. Will use a reviewing procedure for contributions.

Question: There is an annual national meeting in November – December. Can the date of ICCE be changed? Or must it be in August? Avoid conflict with other conferences. More people have problem in December.

Formal discussion: Mei-Hung leaves the room. This is a substantial nomination from Taipei. CCE concludes that both thought and care is put into the suggestion.

The bid is approved and 21st ICCE conference will be in Taipei 2010

Advice to the next organiser:

Think about tertiary in addition to primary and secondary, big challenge to bring in tertiary education. Avoid conflict with other conferences.

**FUTURE:**

An upcoming ICCE conference must be in Western Europe or America very soon for geographical balance.

Boesch: Switzerland has expressed an interest to organize but need more information. Maybe have France onboard and possibly Germany.

It is important to pass on experiences from former organizer. There should be a template for report that deals with it, to avoid reinvented the wheel. Task for the new conference coordinator.

#### 10.4. Other Educational Conferences

Conference coordinator, Warren Beasley, reported

Chem 13 News is the best source for information. FLAQ Latin America

##### 10.4.1 Request for input into education program for 42nd IUPAC World

Chemistry Congress, Glasgow, 2009 [[CCE2007\\_10.4.1 - IUPAC Congress 2009.pdf](#)]

Letter from Stuart, concerning tertiary education

Warren is stepping down as TM and conference coordinator.

Personal thanks to Warren Beasley for all his work!

#### **11. CI and CEI**

Editors to report (Fabienne Meyers and Masato Ito)

CCE expresses a large appreciation to Fabienne for the way she profiles chemical education and public appreciation in chemistry in CI, Chemical International.

ITO:

Presentation of CEI, see [[CCE2007\\_11 - CEI Report.pdf](#) ]

Special thanks to Masato Ito for all his work with CEI and as TM.

#### **12. Administrative matters**

Finances total:

\$ 38 000

Project budget:

\$ 20 000

Operating budget

\$ 18 300

Spent \$ 17000 of \$ 20 000 project budget.

\$ 1000 over budget for the operating budget

#### B. Membership

There is a new procedure with an advisory committee, the purpose is to make the election process more transparent.

Chair, CCE: I want CCE be more dynamic, and bring in younger people, to have geographic and cultural diversity, broad expertise, and a gender balance.

Membership Advisory committee consists of:

Peter Atkins (chair),  
Eva Åkesson,  
Erica Steenberg,  
Daniel Rabinovich

Appointment of Subcommittee Chairs 2008-2009:

CED: Mei-Hung Chui  
PUC: Anthony Ashmore

Appointment Conference Coordinator 2008-2009:

Morton Hoffman

Suggestions from the advisory committee:

Secretary 2008-2009  
Eva Åkesson

Titular Members: 2008-2012

Mei-Hung Chiu  
Natalia Tarasova, Russia  
Mastafa Sözbilir, Turkey

The chair request CCE approval to put forward the suggestions to the IUPAC president.

Note thanks to Atkins and the committee members for their work!

#### **13. Other business**

Graham Pearson

Short presentation on arms control, and biological convention code of conduct 2005.

The Oxford workshop on education outreach and code of conduct. UNESCO pushes for codes of conduct. IUPAC looks for guidelines for chemist, what could be useful to put in there. Look for something that already exist and piggy bag, Graham asks for help to formulate a CCE project proposal, this will be one group in the breakout session.

#### **14. Break out session**

Suggested groups:

Appoint a reporter; send a written rapport to the secretary within a week.

Back at 12 o'clock and with a 2 minutes oral report. The break out sessions will be reported in a separate document.

#### **15. Next meeting**

Next meeting of CCE will take place during the Mauritius ICCE, August 2008, a full day meeting the 3<sup>rd</sup> August, the opening day of the conference

Thanks to everybody from the chair, Peter Mahaffy! In particular to all division AM!