

International Union of Pure and Applied Chemistry

95th MEETING OF BUREAU
Coimbra, Portugal, 12-13 April 2014

MINUTES

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Attendees: Dr. Mark Cesa (Chair), Prof. Russell J. Boyd, Prof. Christopher Brett, Prof. Michael Buback, Prof. Tavarekere K. Chandrashekar, Prof. Mei-Hung Chiu, Prof. John Corish, Prof. Javier Garcia-Martinez, Prof. Mary Garson, Prof. Richard Hartshorn, Dr. Karl-Heinz Hellwich, Prof. D. Brynn Hibbert, Mr. Colin Humphris, Prof. Ram Lamba, Ms. Bonnie Lawlor, Prof. Roberto Marquardt, Dr. Laura McConnell, Prof. Christopher K. Ober, Dr. Thomas J. Perun, Prof. Jan Reedijk, Prof. Natalia Tarasova, Prof. Kazuyuki Tatsumi, Prof. Ron Weir, Dr. Bernard West, Prof. Kaoru Yamanouchi, Prof. Qi-Feng Zhou

Absentee: Prof. Leiv Sydnes

Guest: Prof. Doug Templeton

Secretary: Dr. Fabienne Meyers

1. INTRODUCTORY REMARKS AND WELCOME

Dr. Cesa welcomed all participants and thanked the Sociedade Portuguesa de Química for their invitation and support, and Professor Chris Brett for the excellent arrangements. M. Cesa introduced Professor João Sérgio Seixas de Melo, Secretary General of the Sociedade Portuguesa de Química, who spoke about the Sociedade, its standing with regards to IUPAC, and the long history of chemistry at Coimbra. Professor Maria Jose Calhorda, President of the Sociedade, joined the group at dinner.

As this was the first Bureau meeting for many, Dr. Cesa invited everyone to introduce themselves.

2. FINALIZATION OF AGENDA

No additional items were requested and the agenda was approved as proposed.

3. MINUTES OF 93RD AND 94TH MEETING OF BUREAU

The minutes of the 93rd Bureau meeting held in Frankfurt, Germany, in April 2013 were circulated by email and via the bulletin board on 25 July 2013. The comments received were included.

The Bureau also met briefly in Istanbul (94th meeting); the draft of the minutes was circulated by email on 5 September 2013, and minor revisions received and inserted on 30 September 2013. Meanwhile the list of Actions taken at IUPAC Council and Bureau have been made available online on 6 September 2013:

<http://www.iupac.org/news/news-detail/article/actions-taken-at-iupac-council-and-bureau-istanbul-2013.html>

Decision: The Bureau was asked to approve the Minutes of the 93rd (Frankfurt) and 94th (Istanbul) meetings.

Mary Garson asked that the name of Professor Krishna Ganesh be corrected in the 94th meeting minutes of the Bureau.

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The minutes of the 93rd and 94th meetings of the Bureau were approved by show of hands (unanimous).

3.1 MATTERS ARISING FROM MINUTES (NOT COVERED BY ITEMS ON AGENDA)

There were no additional items arising from the minutes that were not covered by items on the Agenda.

4. MINUTES OF 151ST MEETING OF EXECUTIVE COMMITTEE (EC)

4.1 RECEIPT OF MINUTES BY BUREAU

The Executive Committee met in Frankfurt, Germany, in April 2013 directly following the Bureau; no minutes for that 149th meeting were issued.

The 150th meeting in Istanbul was brief and held directly after the Bureau meeting. The minutes were circulated by email on 5 September 2013 and approved at the following Executive Committee meeting on 7 December 2013. The Executive Committee met next in RTP, NC, USA, on 7-8 December 2013; the minutes of this 151st meeting were included in the Agenda Book.

4.2 HIGHLIGHTS AND QUESTIONS ABOUT ITEMS NOT ON BUREAU AGENDA

The minutes of recent Executive Committee meetings were included in the Agenda for reference. There were no questions.

5. MINUTES OF 47TH MEETING OF THE COUNCIL

A preliminary version was prepared by Fabienne Meyers and shared with the Vice President and Treasurer on 30 October 2013. The draft minutes were included in the Agenda Book and Members of the Bureau were invited to return comments and feedback by email to secretariat@iupac.org no later than 5 May 2014. The minutes will be submitted for approval at the forthcoming General Assembly.

Again there were no questions and Dr. Cesa invited Bureau members to return any comments by email.

6. ACTION ITEMS FROM PREVIOUS MEETINGS

Dr. Cesa reviewed the action items as listed in the detailed agenda, and in particular those that are pending and not later addressed in this Agenda:

*[93BU03] Establish alternative NAOs contacts list (JP/Secretariat)
(in progress; info collected by Moreau shared with Cesa)*

> Dr. Cesa confirmed that this action was in progress and that he will follow-up with Nicole Moreau.

[93BU24] Check on use of sponsor logos on chemistry2011.org (SG)

> Apparently no check has been made with the 2011 International Year of Chemistry (IYC) sponsors since IUPAC dropped the use and maintenance of the domain *chemistry2011.org*. Not all the sponsors logos are displayed and some

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may be unhappy that their logos continue to be associated now that IUPAC is not involved. This should be investigated by the incoming Acting Secretary General.

[94BU04] For GA 2015, formulate specific invitation for the incoming DPs and STCCs for participation at the Bureau directly following the Council.

> F. Meyers confirmed that the incoming Division Presidents (DPs) should be informed about their attendance at the short Bureau meeting set directly after the Council. This will be implemented for the 2015 General Assembly (GA).

[151EC11] Follow-up with IChO to see how the Past President could be involved in the 2014 event in Vietnam. (Tatsumi) (in progress)

> Prof. Tatsumi explained that this year IUPAC was not providing financial support to the International Chemistry Olympiad (IChO). He will nevertheless explore how to preserve the connection with IChO with the organizer. Mei-Hung Chiu offered to facilitate contact with Professor Iji Chang who is the elected member of the Steering committee.

Dr. K-H. Hellwich (DP8) noted that he had reviewed the examination in the past and found that IUPAC names were not fully implemented. He suggested that this might be a role for IUPAC in the future.

Prof. Tarasova (VP) expressed her hope that by the next GA, IUPAC can restore the financial support that was used to facilitate the attendance of participants from emerging countries. Prof. Tatsumi concurred, restating that it is a good 'investment for IUPAC's future.'

[151EC14] Review Division membership guidelines with DPs and STCCs to ensure that the practice of ensuring geographic diversity among TMs is followed. (Cesa)

Dr. Cesa stated that questions had arisen over the geographic diversity of some Division Committees membership. He has discussed this issue with the Division Presidents individually.

Prof. Brett suggested that the Nomination Committees (NC) should be reminded of the need for geographic diversity and Prof. Hartshorn confirmed that this could be highlighted in the information sent the NC chairs. This point will be considered in the proposed review of the election process.

[151EC19] Contact Jan Reedijk suggesting that he (or his designee) initiate a task group to provide a recommendation on the question raised by the Russian NAO on the naming of the periodic table after Mendeleev. (Tatsumi)

> Prof. Tatsumi reminded the Bureau that the question of naming the periodic table after Mendeleev was first raised at the 93rd Bureau meeting and then referred to the Executive Committee. At its meeting last December, the Executive Committee agreed to ask Division II to set up an expert task group to consider the

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proposal. Prof. Reedijk has agreed to initiate this work and report by the Busan General Assembly.

7. REPORT OF THE PRESIDENT

Dr. Cesa stated that IUPAC faced several challenges and reported that the officers and Executive Committee have been proactive in addressing these. His report covered the following points:

- The Secretariat has been functioning with an interim structure to accommodate the vacant Executive Director position since last September. The principal responsibilities have been divided among the remaining staff and one officer assigned to each to guide and mentor them.
- The search for a new Executive Director was ongoing and the job description advertised by posting on a number of websites for not for profit organisations (See later item 21.2). The Executive Director post description was reviewed to place more weight on the administrative requirements when compared to the recruitments in 2010 and 2012. Bureau members were encouraged to promote the role within their networks. If things go well the position may be filled during the summer 2014.
- The review of the Executive Director role review included an outside assessment by Tom Tritton, former CEO of the Chemical Heritage Foundation.
- With regard to the finances, a new claim form has been implemented that should help in controlling cost. In addition the Finance Committee is reviewing the investment portfolio and its risk profile with a view the increasing returns.
- The new partnership with De Gruyter for publication of both the scientific journal *Pure and Applied Chemistry* (PAC) and the newsmagazine *Chemistry International* (CI) have been established and the basic transition completed with the first publications in January 2014.
For PAC, Hugh Burrows has taken over the role of scientific editor after James Bull retired in December 2013. The task of nurturing and developing a good collaboration with De Gruyter will continue. A new team was set up accountable for this comprising John Corish, Colin Humphris, Javier Garcia Martinez, Steven Bachrach (former member of the Committee on Printed and Electronic Publications (CPEP)), and Dave Martinsen (former CPEP chair and chair of the initial transition teams).
- Current website difficulties were acknowledged which need both short and long-term attention; more under item 22.
- NAO membership of IUPAC continues to rise. After admitting Argentina, Mozambique, and Nepal at the last Council, this 95th Bureau meeting was being asked to review 4 more NAOs and one more ANAO (see item 17)
- The IYC Legacy project is nearly completed (see item 13)
- Claims of new elements continue to be examined by the joint IUPAC/IUPAP working party. Recent announcements in the literature continue to trigger inquiries to the Secretariat, attesting of a continued public interest. The Joint Working Party is reviewing claims for elements 113, 115, 117 and 118. (see item 28)

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Overall, Dr. Cesa believed that whilst there are many challenges, there are also many opportunities. Together these form parts of the strategic review that should contribute to enhance IUPAC's reputation and visibility.

8. REPORT OF THE SECRETARY GENERAL

8.1 SELECTION OF AN ACTING SECRETARY GENERAL DR. CESA

Following the recent resignation of Prof. Rene Deplanque as Secretary General, the Bureau was asked to take action to fill the vacancy. Dr. Cesa briefly reviewed the process as summarized in the Detailed Agenda to make a temporary appointment for the remainder of the term to the end of 2015:

S7.5 The Bureau may not elect Officers of the Union nor admit nor remove Members of the Union, but it may fill temporarily vacancies among the Officers pending the next regular meeting of the Council, when the Council shall fill such vacancies.

Prof. Corish indicated that initially three nominations had been received, but that after consultation with the candidates, one asked not to be considered. The CVs of the two nominees were circulated prior to this meeting. The candidates were:

- Professor Anders Kallner
- Mr Colin Humphris

8.2 CALL FOR ADDITIONAL CANDIDATES

There were no additional candidates from the floor.

8.3 VOTING

Voting by secret ballot took place to elect one Acting Secretary General. There were 22 votes for Colin Humphris and 3 for Anders Kallner. Colin Humphris was elected Acting Secretary General, starting immediately.

Dr. Cesa thanked everyone for their collaboration during this transition. He also thanked both candidates for their willingness to serve.

9. VICE PRESIDENT'S CRITICAL ASSESSMENT

Prof. Natalia Tarasova started her presentation by contrasting the challenges as perceived by IUPAC in 1999 to those of today as exemplified by the Planetary Boundaries for a sustainable world documented in Rockstrom's work (*Nature*, 2009). Of the nine key boundaries, those associated with climate change, biodiversity, and biogeochemical loading from nitrogen are already being exceeded. Two boundaries are not yet quantified; chemical pollution and atmospheric aerosol loading and IUPAC has a role to play in their quantification.

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Based on Global Chemical Outlooks (United Nations Environment Programme, 2012), a better understanding of the chemical environment is needed. She summarized the problem as 5 fold: (i) the lack of data, knowledge and education; (ii) the increasing volume of chemical production and use, (iii) the uncontrolled export/import and trans boundary transfer; (iv) inadequate regulation; and (v) failure to comply with international obligations.

Prof. Tarasova argued that IUPAC could provide the chemistry expertise as part of collaborative programmes. For example, there are a number of needs:

- for professional societies and non-governmental organizations (NGOs) to disseminate information on sustainable chemistry research and results;
- to show how these results can meet societal objectives;
- to establish criteria for international standards for assessing sustainable chemistry R&D in cooperation with the international agencies; and
- to provide awareness and interface between the scientific community and the public at large;
- to find new ways to work with industry to develop new technologies that enable a decoupling of economic growth from environmental impact.

Prof. Tarasova argued that IUPAC can draw on its intrinsic strengths to make meaningful contributions to international projects that address the *needs* of the chemistry community and the world at large. These strengths are based on its truly global perspective and the diversity of the IUPAC community. To achieve this we need to ensure a number of things as we approach the IUPAC centenary:

- that the project system functions effectively
- that we continue to broaden global involvement, increasing the numbers of NAOs
- that IUPAC pays attention to gender diversity and the engagement of young chemists
- share the best educational practices that IUPAC has developed with others as part of the UN Decade of Education for Sustainable Development
- anticipate and avoid problems – managing deliberate non-catastrophes!

Prof. Buback suggested that IUPAC should anticipate these global issue questions that are more generally debated in political circles, and prepare answers or position statements.

Prof. Tarasova indicated that this idea had been discussed among the officers to address such questions, together with other Unions or via the International Council for Science (ICSU) as appropriate.

Mr. Humphris noted the IUPAC experience with the Strategic Approach to International Chemicals Management (SAICM) project, and the challenges of dealing

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with politicians. In this case it was far easier to work through the SAICM secretariat providing them with our expertise as required. Mr. Humphris also emphasized that IUPAC needed to recognize that the press is organized nationally and IUPAC might help national societies, especially those that do not have their own infrastructure to respond.

Dr. Cesa recalled the good model that allows IUPAC to collaborate with Organisation for the Prohibition of Chemical Weapons (OPCW), providing scientific expertise.

Prof. Garcia-Martinez stated that IUPAC should be building more on its traditional expertise.

Dr. West agreed that IUPAC should prepare a 'package' of position statements on the questions raised by the planetary boundaries debates.

Prof. Lamba thanked Prof. Tarasova for her presentation and recalled that ICSU is now engaged in the *Future Earth* initiative. He asked what role should IUPAC take?

Prof. Brett stressed that each member has the ability to act and respond in support of his/her National Adhering Organizations (NAOs).

10. REPORTS FROM DIVISIONS AND STANDING COMMITTEES

10.1 DIVISION I - PHYSICAL AND BIOPHYSICAL CHEMISTRY, PROF. ROBERTO MARQUARDT

Professor Marquardt briefly reviewed the composition of Division I and pointed to the geographic and gender diversity, and noted that the current vice president is Angela Wilson from the USA.

The key project highlighted was project 2013-048-1-100, entitled "A critical review of the proposed definitions of fundamental chemical quantities and their impact on chemical communities." The project was launched at the GA2013 in Istanbul and gained support from Divisions I, II, V and the Committee on Chemistry Education (CCE) and relates to the definition of the mole. The outcome will be a technical report from which a later recommendation could be developed. The IUPAC assessment of the best definition for the mole, for the quantity amount of substance and the name itself should be completed before the new definitions are voted at the International Bureau of Weights and Measures (BIPM) in about 2 years.

A concern raised was the longevity of projects. The Division is committed to encourage prompt completion of all the projects. In an on-going review process, the Division may well decide to terminate a project for which no progress is reported. Professor Marquardt suggested that the chairs of projects that are terminated in this way should no longer be eligible to receive IUPAC project support, not only from Division I, but also other IUPAC Divisions as well.

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Another issue of concern for the Division was about royalties coming out of IUPAC books; (see later item 30).

Professor Marquardt noted that the Green Book was an on-going project. Yet because Commission I.1 has little opportunity to meet, the work has been slow. Their last meeting was in 2001. The 4th revision of the 3rd edition shall come next. A timeline for a 4th edition is not in place yet. It was noted that the Green Book is a very valuable reference and is adopted by European Union.

Future plans and projects for the Division include biophysics (definition of terms and symbols); shale gas fracture; density functional theory (DFT).

10.2 DIVISION II – INORGANIC CHEMISTRY, PROF. JAN REEDIJK

Professor Reedijk highlighted two successful projects that provided good visibility for IUPAC:

1. Terminology in coordination polymers and metal organic frameworks – the outcome of that project was not only published in PAC, but it was also written about in *C&ENs*. During the project completion, a brief account of the task group's work was also published in *CrystEngComm*.
2. The regular Atomic Weights of the Elements 2011 was completed and published in 2013.

Professor Reedijk outlined other projects that are about to be completed and proposals that are being assessed by the Division, showing that the overall level of activities in the Division was being maintained.

The Division is concerned with the election process that they find too long.

Division II has a keen interest to engage young observers in their activities and out of the 7 that participated in Istanbul, 4 are now expected to be involved.

As ways to keep its members engaged, the Division releases a newsletter every 6 months which is also distributed to the Bureau; it also has a 'welcome pack' which is a resource for new members.

Looking forward, Division II has several key projects to develop, including a resource for teaching materials science; terminology of nanomaterials; definition of valence; various periodic tables with various emphasis such as 'life', allotropy; working on/with Wikipedia on entries related to inorganic chemistry and nomenclature.

10.3 DIVISION III – ORGANIC AND BIOMOLECULAR CHEMISTRY, PROF. MARY GARSON

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Professor Garson referred to her written report. She pointed out that balancing expertise in the Division Committee was a challenge at a time when several experienced members are reaching the limit of their service.

The Division is coordinated via 6 subcommittees; one in particular needs to be 'revitalised', i.e. Structural and Mechanistic Chemistry.

The Division is responsible for 9 regular IUPAC-sponsored events looks and 2 prizes: The Thieme-IUPAC Prize in Synthetic Organic Chemistry (administered by Thieme) and the CHEMRAWN VII Prize for Atmospheric and Green Chemistry (administered by the Division jointly with CHEMRAWN). Professor Garson pointed out that the Division plans each of its conferences carefully and that in some instance they might request postponement if the organization is unsatisfactory.

An update on each current project and a listing of the conference series sponsored by Division III are provided in the written report.

10.4 DIVISION IV - POLYMER, PROF. MICHAEL BUBACK

Professor Buback also referred to his written report. He highlighted the activities of the Subcommittee on Polymer Terminology which currently runs close to 20 projects and that is responsible for "Polymer Terminology – A Brief Guide."

Another highlight from Division IV was the updating of Wikipedia; the Task group is keen to share experience with other Divisions. (see <http://www.iupac.org/project/2011-013-2-400>).

Content for the Polymer Education website continues to be developed, but online access needs to be restored to enable update of the actual website <http://www.iupac.org/polyedu/>. The plan is to also present a version of the Purple Book on that site.

Activities from both the Subcommittee on Structure and Properties of Commercial Polymers and the Subcommittee on Modeling of Polymerization Kinetics and Processes continue to command attention. Citations for some of the reports produced are very high. In particular, Professor Buback pointed out to 1995 report on styrene (<http://dx.doi.org/10.1002/macp.1995.021961016>) published *Macromol. Chem. Phys.* and which according to the Web of Science has more than 500 citations.

Professor Buback reported that this year's Macro Congress was to be held in Thailand and that the previous 2012 event held in US has made a gift of \$10k to support this year's event; the hope is that from one event to the next, the series can continue to self fund.

10.5 DIVISION V – ANALYTICAL CHEMISTRY, PROF. BRYNN HIBBERT

Professor Hibbert referred to his report in the Agenda Book.

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As highlights, he referred to: (i) the 100th volume of *Solubility and Equilibrium Data* published with NIST and for which activities are being planned during the year including a workshop at the American Chemical Society (ACS) in August, and (ii) Division V representation at the BIPM – CCQM (in French, the Comité consultatif pour la quantité de matière) which is closely involved in the redefinition of the mole and the debate now raised under IUPAC 2013-048-1-100 (see section 10.1 above).

Professor Hibbert is involved as coordinator/editor of the new Orange Book (<http://www.iupac.org/project/2012-005-1-500>).

The Division has a keen interest in ensuring that the Gold book is updated and that updates to the Gold Book are also synchronized with the Orange Book. Professor Hibbert met Mark Kinnan (a young observer attending CPEP) at the GA2013 in Istanbul and Mark offered options to revise the color books as a database. A project was quickly developed which is supported by the Interdivisional Committee on Terminology, Nomenclature and Symbols (ICTNS) (see <http://www.iupac.org/project/2013-052-1-024>).

10.6 DIVISION VI – CHEMISTRY AND THE ENVIRONMENT, DR. LAURA MCCONNELL

Dr. Mc Connell reported that the major activity this year for the Division was the 13th Congress on Pesticide Chemistry (<http://www.iupac2014.org>) organized within the ACS meeting this coming August in San Francisco. This was the first time that this congress would be jointly coordinated with ACS; it involved about 100 persons in the planning and more than 1000 abstracts have been received, including about two-third posters. The next Congress in 2018 will be held in Rio de Janeiro, Brazil.

10.7 DIV VII – CHEMISTRY AND HUMAN HEALTH, DR. TOM PERUN

Dr. Perun emphasized that Division VII is working to enlarge collaboration both within and outside IUPAC, and which in some cases provides a way to increase the funding available for projects.

The Division includes three Sub-committees that have distinct activities. Some project highlights include:

- (a) The Sub-committee on Toxicology and Risk Assessment (chaired by John Duffus) has a successful project on toxicology in the classroom which put IUPAC in the forefront of the safe use of chemistry. This is a joint project with WHO and UNEP and the Universiti Sains Malaysia; (<http://www.iupac.org/project/2013-023-1-700>)

A second project is on nanomaterials and human health, jointly with Division IV: <http://www.iupac.org/project/2013-007-1-700>

The anticipated outcome will include a technical report and a publication for the lay public. A 2-day workshop is also being planned as part of this project (<http://www.iupac.org/project/2014-013-1-700>).

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- (b) The Sub-committee on Drug Discovery and Development has projects which attracted financial support from ACS (of the order of 5k per project). Another activity of this subcommittee is the Richter prize, which has been running now for 10 years. The 5th award in 2014 was presented to Dr. Helmut Buschmann (<http://www.iupac.org/news/news-detail/article/helmut-buschmann-is-awarded-the-2014-iupac-richter-prize.html>).
- (c) The Sub-committee on Nomenclature for Properties and Units (chaired by Helle Møller Johannessen) is in partnership with the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC). An agreement is now in place which seeks harmonization of clinical medicine terminology (<http://www.iupac.org/news/news-detail/article/quality-in-laboratory-medicine-npu-terminology.html>).

10.8 DIVISION VIII –CHEMICAL NOMENCLATURE AND STRUCTURE REPRESENTATION,
DR. KARL-HEINZ HELLWICH

Dr. Hellwich referred to his written report and highlighted that Division VIII supports numerous projects on Chemical Nomenclature. One recent and most important outcome is the new Blue Book finally published in 2013 (<http://www.rsc.org/shop/books/2013/9780854041824.asp>). The Division is working to resolve inconsistencies already detected or reported.

Many projects of Division VIII are running behind the scheduled end-date. Dr. Hellwich identified two main reasons: 1. task group members are volunteers and mostly not generalists, and 2. the nomenclature field faces the challenge of introducing new ideas and concepts, yet relying on earlier solutions.

The years of service -2 years for titular members- is also insufficient in the area of nomenclature where to become an effective specialist takes many years. It is therefore important to find ways to retain experienced volunteers over the longer term.

Identifying the needs of the users is key, and in this regard the publication of the “Essentials” or “Brief Guides” to several areas of Nomenclature appears to be well received by the community. For example, the Brief Guide on Polymer Nomenclature, first published in 2011, has been reprinted in some 12 journals. Similarly, Division VIII is developing a Brief Guide on Inorganic Nomenclature to be completed this year, and on Organic-chemical Nomenclature for completion soon thereafter. Users often do not want to study large books on recommendations; these Brief Guides are thought as quick references, and can easily be republished or included in Author Guidelines.

The Division has been in liaison with ISO in recent years and in response, nomenclature projects are being developed in the area of nanomaterials.

10.9 CHEMRAWN – PROF. LEIV SYDNES (WRITTEN REPORT ONLY)

10.10 COCI – CHEMISTRY AND INDUSTRY, DR. BERNARD WEST

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Dr. West reported that at the GA2013 in Istanbul, COCI led successful activities including the World Chemistry Leadership Meeting that actively engaged Young Observers.

Also in Istanbul, COCI ran a workshop in connection with the Safety Training Program (STP). STP continues to attract applicants and two fellows were trained at Dow in Netherlands during 2013. The first fellow supported by CRDF Global coming from Egypt has also been identified. (CRDF Global is an independent nonprofit organization that promotes international scientific and technical collaboration through grants, technical resources, training and services; see more at www.crdfglobal.org)

A project on Responsible Care led to a book that was published in Dec 2013 with the objective of providing readers in industry, government, and academia with the principles and innovative thinking associated with the Responsible Care ethic as a means to promote and implement such advanced concepts in their own institutions (<http://www.degruyter.com/view/product/247600>).

COCI was planning to have a meeting during autumn 2014. A particular problem the committee faced was that all the titular members of the committee, except one, are new. A key new objective will be to review the Company Associates program, examining the needs of companies and providing the Executive Committee with recommendations for revision of the program.

10.11 CCE – CHEMISTRY EDUCATION, PROF. MEI-HUNG CHIU

Professor Chiu referred to her report included in the Agenda Book and highlighted the following activities:

- In July 2013, the International Conference of Network for Inter-Asian Chemistry Educators (NICE) provided a new opportunity to network in that region.
- In Jan 2014, a meeting with the International Organization for Chemical Sciences in Development (IOCD) and CHEMRAWN provided an opportunity to review projects of common interest and explore initiative such as IOCD ChemKnowBase.
- In July 2014 the next ICCE will held in Toronto.
- Following the 2012 Flying Chemist Program in Mexico and Panama, CCE is now exploring a program in Chile and possibly in Uruguay.
- In Dec 2013, the first African Conference on Research in Chemistry Education was organized; CCE and CHEMRAWN were represented, highlighting IUPAC's continuous support in that region.
- Joint collaboration with Organisation for the Prohibition of Chemical Weapons (OPCW) continued; a workshop focusing on "Choices for chemists: How do we make them?" was organized during the IUPAC Congress in Istanbul in August 2013.

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- CCE will participate in the work reviewing the definition of the mole (project 2013-048-1-100 mentioned above) and Marcy Towns has joined the project task group.

10.12 ICTNS –INTERDIVISIONAL COMMITTEE ON TERMINOLOGY, NOMENCLATURE AND SYMBOLS, PROF. RON WEIR

Professor Weir reviewed ICTNS activities and noted that while the committee has no projects of its own, it is also involved in the project on the definition of the mole. ICTNS is closely interested in the implementation of project 2013-052-1-024 entitled “Colour Book Data Management” and which should initially provide a content management system for the development and updating of the Gold Book.

Regular activities related to proof reading PAC technical reports and recommendations constitute a heavy workload for the committee. Professor Weir also indicated that ICTNS work carries a legal responsibility as other organizations (e.g. EU, NIST) rely on IUPAC terminology and nomenclature.

Professor Weir ‘s written report includes tabulated accounts of all the recommendations and technical reports reviewed by ICTNS over the past 2 years.

10.13 CPCDS –COMMITTEE ON PUBLICATIONS AND CHEMINFORMATICS DATA STANDARDS, MS. BONNIE LAWLOR

Bonnie Lawlor reported that since the last GA, the committee activities have focused on the transition of the publications production to DeGruyter (DG). While the transition to DG publication of both PAC and CI in January 2014 has been completed, some teething problems remain in relation to the PAC back files and CI distribution.

The Committee’s second focus was the website; a first task force (which met the day prior the Bureau) will complete an assessment and provide a new vision for the website for subsequent technical implementation. The goal is to have an upgraded site in place by the 2015 General Assembly.

11. ITEMS FROM MEETING OF DIVISION PRESIDENTS

Laura McConnell chaired the Division Presidents meeting held on Friday April 11.

As a group, the Division Presidents and Standing Committee Chairs recommended shortening and streamlining the Division election process so that it can be conducted in the first few months of Year 2 of the biennium in response to previous actions 93BU08 and 151EC21.

[93BU08] Provide feedback to NAOs about this year election – information, call for nominations for VP, Bureau, Division Committees, and Standing Committees (Secretariat/PL)

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[151EC21] Review with the DPs the timeline for next elections cycle with the goal to proceed soon after the next Bureau (April 2014). An emphasis shall be placed on transparency; e.g. all the candidates should be aware of the whole candidate list; the deadline for completion, i.e. for ratification by the EC following the Council, shall be announced so that candidates know when they will hear the results. (Meyers & LeClair)

Reporting on the outcome of the 2013 Division elections is in progress, but late. Going forward, this needs to be explicitly included in an overall revision of the election timeline.

Richard Hartshorn (former Division VIII President) and Fabienne Meyers have agreed to put together a suggested schedule in consultation with Paul LeClair. This will be reviewed by the Division Presidents and then forwarded to the IUPAC President. As soon as revised, a call for nominations will be sent to NAOs and also be included in *Chemistry International*.

ACTION 1: Division Presidents to provide suggestions for the revision of the elections timeline (R. Hartshorn)

A second topic discussed by the Division Presidents was how to improve inter-divisional interaction during the General Assembly. They were keen to discuss the schedule and room allocations earlier in the organisational process.

Action was requested from the Bureau relating to the 'ownership' of the Gold Book and colour books in general. The Division Presidents recommended that an interdivisional subcommittee between ICTNS and CPCDS be established to whom relevant projects, such as project 2013-052-024, "Colour Book Data Management" could report. The Division Presidents asked that the chairs of ICTNS and CPCDS begin recruiting members for this committee.

By show of hands (all for) the Bureau approved of the formation of the proposed Gold Book joint subcommittee.

Following the same logic, it was argued that IUPAC should also have an interdivisional subcommittee on Wikipedia. Professor Buback was asked to follow-up with the CPCDS chair.

By show of hands (one against) the Bureau approved of the formation of a Wikipedia interdivisional subcommittee.

In response to Action 151EC03

[151EC03] Ask the DPs to add an item to the Division Presidents' meeting at the April 2014 Bureau meeting for suggestions on how to reduce the budget. (in progress; to be discussed by the Treasurer at the DPs meeting)

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Prof. Corish reported having talked about that topic during the DPs meeting and this will again be discussed under financial matters.

12. WORKING GROUPS UNDER THE BUREAU

The Bureau were asked to approve “rules” for the Membership Relations Committee (MRC), the ‘Prize’ Committee, and the Committee on Chemistry Research Funding (CCRF). The rules define the Composition, Terms of Office and the Terms of Reference of these Bureau Committees and the proposals were included in the Agenda Book. The rules are intended to clarify the scope of the task forces, and did not require formal inclusion in the Standing Orders.

Dr. Cesa proposed the motion:

The Bureau approves the rules for the functioning of the MRC, the ‘Prize’ Committee, and the CCRF.

By show of hands (all in favor) the Bureau approved the rules for the functioning of the Membership Relations Committee (MRC), the ‘Prize’ Committee, and the Committee on Chemistry Research Funding (CCRF).

Dr. Cesa confirmed the establishment of a web working group of the Bureau, chaired by CPCDS chair, that is to proceed with an assessment and plan for the IUPAC website development. ‘Rules’ will be drafted accordingly. Current web issues were discussed under item 22.

13. INTERNATIONAL YEAR OF CHEMISTRY

13.1 IYC2011 Report and dissemination

Dr. Cesa reported that the draft IYC report is in an advanced stage and a release can be expected mid year.

With regards to Action [93BU07] *Establish link to IYC back-up site from the IUPAC home (link to iyc2011.iupac.org (Secretariat), a link has not been reset as the site iyc2011.iupac.org has been down since mid-March 2014 and is proving difficult to restore.*

13.2 INTERNATIONAL YEAR OF CRYSTALLOGRAPHY 2014 (IYCr)

Prof. Corish reported that he participated at the opening of IYCr2014 in Paris in January. The success of the IUPAC global water experiment was highlighted, but while IUPAC offered to help IUCr with their own global experiment, a crystal growing competition, there was no follow-up.

More information about IYCr2014 is available online at iycr2014.org

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13.3 INTERNATIONAL YEAR OF LIGHT (IYL)
AND INTERNATIONAL YEAR OF SOILS 2015 (IYS)

Dr. Cesa explained that 2015 could provide numerous opportunities to promote projects/activities within the framework of the IYL2015. Professor Marquardt indicated that he will share this information with Division I which will meet at the end of May, and report any ideas. Division III and its Subcommittee on Photochemistry will also consider possible activities or projects; the Sub Committee will meet in July. Professor Mei-Hung Chiu will also explore possibilities within CCE.

ACTION 2: Bureau members were asked to respond with their ideas to the President by mid-July. The President will then write to John Dudley (president@eps.org) to seek ways to collaborate in the 2015 **International Year of Light** (M. Cesa).

Dr. Cesa briefly also referred to the plans to celebrate in 2015 the International Years of Soils and the parallels that can be drawn with the IYC2011 water experiment. Again, the President asked for ideas and suggestions as he will contact IUSS officers to explore interest to engage in a joint activity.

ACTION 3: Contact International Union of Soil Sciences (IUSS) President-elect Rainer Horn: rhorn@soils.uni-kiel.de to see how to engage with the 2015 **Year of the Soil** (M. Cesa).

13.4 PHOSAGRO PROJECT

Prof. Corish reported that the PhosAgro activity was proceeding accordingly to plan. The call for proposals generated 141 applications. 31 were not suitable, but 110 remained to be judged. The applications cover a good geographic spread, including 48 from Asia; 36 from West Europe and North America, 10 from Africa and 4 from Latin America.

The Awards were to be presented in June 2014 in Russia.

It was noted that PhosAgro also support the 5th IUPAC International Conference on Green Chemistry (ICGC) scheduled for this coming August in South Africa.

It was noted that Action [151EC06] *Notify the CAs about the PhosAgro project; the office is to work with COCI to ensure that a notice is sent out*, remained outstanding.

14. FUTURE GENERAL ASSEMBLIES AND CONGRESSES

14.1 48TH GENERAL ASSEMBLY AND 45TH CONGRESS (2015)

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14.1.1 Review of Plans for Congress

Prof. Tatsumi reported on his visit to Korea during which he met with Professor Myung Soo Kim, chair, and Professor Hosung Sun, vice chair of the organizing committee. The program is mostly completed and eight plenary lectures are now confirmed. Disappointingly, the organizers had proceeded under the misapprehension that IUPAC was only concerned with the GA while the Congress planning is entirely that of the local host.

Prof. Tatsumi also reported that the funds for the Congress were half secured and that the second half may still need to come from Government support.

There was discussion of the level of involvement IUPAC should have in the circumstances. There was a consensus among Bureau members that the organizers should take measures to increase diversity with more women, young speakers and speakers from Africa and South America included in the program.

Division Presidents received an email update on 24 March 2014, from Professor Seung Min Park, Scientific Program Director, inviting comments in response to a preliminary program, detailing plenary and keynotes speakers.

Dr. West will see how to get Carolyn Ribes involved given the COCI interest to involve former Fellows of the Safety Training Program.

There was a proposal for a poster session to showcase IUPAC projects and it was agreed that any opportunity to showcase IUPAC to Congress participants should be explored.

Dr. McConnell proposed that the Bureau's concerns and ideas be transmitted to the Congress organisers and an action was agreed.

ACTION 4: The President to consider suggestions and concerns from Bureau members and raise these in writing with the IUPAC2015 Congress organizers (M. Cesa)

14.1.2 Review of Plans for the General Assembly

The organizers were requesting IUPAC to provide detailed room requirements for the General Assembly and a definitive schedule.

Prof. Garson reminded the Bureau that in Brisbane in 2001 the costs of the General Assembly rooms were covered by the host. Prof. Corish stated that the budget for the General Assembly was set at USD 325k, but remained concerned as in Istanbul it ran approximately USD100k over budget.

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The schedule for the General Assembly was then discussed, including the option of including a full Bureau meeting.

Preferences were expressed for a more compressed General Assembly schedule whilst at the same time enabling attendance at the Congress.

A workgroup was appointed to propose a revised General Assembly schedule for Busan and for the future. After agreement by Bureau members, the schedule would be forwarded to the Korean organisers.

ACTION 5: Establish a working group to review GA schedule; to include J. Corish, C. Humphris, M. Garson (DP3), B. West (COCI), and F. Meyers (staff)

ACTION 6: Prepare and forward the GA2015 schedule plan and meeting/room requirements to the Congress iupac2015 organisers (GA Workgroup)

14.1.3 World Chemistry Leadership Meeting (WCLM)

Dr. Cesa asked for proposals for themes for the next WCLM. It was noted that COCI had taken the lead in organising recent WCLMs, but that this was now an opportunity for other IUPAC groups to build on this experience.

The Planetary Boundaries theme highlighted by the Vice President was considered suitable. It was agreed that Division VI Chemistry and the Environment would be key to this, together with CCE. A key element should be to foster interest amongst potential Young Observers through engagement of the NAOs. The relation with Future Earth (www.futureearth.info) should be explored.

ACTION 7: WCLM 2015: L. McConnell (DP6) and Mei-Hung Chiu (CCE) to develop a plan for next year WCLM; to consult with the Vice President and COCI.

14.2 49TH GENERAL ASSEMBLY AND 46TH CONGRESS (2017)

Communication with Professor Adriano Andricopulo (incoming president of the Brazilian Chemical Society, 2014-2016) and Professor Fernando Galembek (NAO representative) has been maintained. A request to provide an update with any information or questions that they would like the Bureau to consider was sent on 26 February 2014.

As a result the Brazilian organisers have raised three questions relating to: (i) the procedure to use the website "www.iupac2017.org", (ii) the estimate of the number and size of the rooms (and other possible spaces) that are required for the General Assembly, and (iii) the main contact person at IUPAC .

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An acknowledgment of their questions has been sent.

Dr. Meyers referred to the information provided in the Detailed Agenda book. The site <http://www.s bq.org.br/IUPAC2017/> used initially to promote the Brazil application has been updated slightly; the organizers plan to acquire iupac2017.org.

ACTION 8: Communicate with iupac2017 (Brazil) and provide specific answers to their questions; request dates to be considered and agreed upon as soon as possible (F. Meyers)

Some discussion of former action 151EC20 followed:

** [151EC20] Inform the NAOs that site for future IUPAC Congress will be voted by Council 4 years in advance; i.e. next vote for the IUPAC Congress in 2021 will be at the Council in 2017, and not in 2015. (Meyers)*

Prof. Garson indicated that the conference venues are usually booked far in advance and Dr. McConnell queried the change. Organising a call for 2021 would require proposals to be prepared by NAOs, and recommendations made by the Bureau prior to consideration at the Busan General Assembly. It was not considered practicable.

By show of hands the Bureau unanimously agreed to proceed with a 4-year cycle. The NAOs will be informed about this promptly as per the Action above.

14.3 50TH GENERAL ASSEMBLY AND 47TH CONGRESS (2019)

This item was not discussed separately and instead included in the next item.

15. 2019 IUPAC CENTENNIAL

Dr. Cesa initiated a discussion about the IUPAC Centennial that will be celebrated in 2019. He noted that the Chemical Heritage Foundation had already started to consider this and he urged the Bureau to do the same. Ideas raised included coordinating a travelling exhibit; national activities such as spelling bees on the theme of IUPAC terminology/nomenclature; the possibility of IUPAC assigning 'chemistry heritage sites', similar to UNESCO World Heritage sites; opportunities for joint activities to deepen the relationship with industry. 2019 will also be the 150 years of Mendeleev table (first presented in 1869). A concern was engagement of the NAOs and the need to promote the centenary effectively. A slide to announce the anniversary will be included in the 'About IUPAC' slide pack provided to all representatives. Possible sponsors need to be approached early given the IYC experience.

It was agreed to establish a small steering group, headed by N. Tarasova and a number of Bureau members volunteered to join. The steering group will organize a planning session at the General Assembly in Busan.

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ACTION 9: Form a Centennial planning steering group, led by N. Tarasova; and including B. Lawlor, C. Ober, R. Hartshorn, C. Brett, R. Lamba, R. Boyd, and J. Garcia-Martinez to prepare initial proposals for discussion in Busan.

16. FINANCIAL MATTERS

16.1 REPORT OF TREASURER

Prof. Corish made reference to his report included in the Agenda Book. He emphasized that the absence of an Executive Director has created significant issues and as a consequence he has been directly involved in support of the accountant manager. The implementation of the publishing agreements with De Gruyter had also created new challenges.

16.2 REPORT OF FINANCE COMMITTEE

Prof Corish informed the Bureau that the Finance Committee met in February and in view of the current financial situation the Finance Committee had made a number of specific recommendations. Amongst these, he highlighted the need to: establish more controls over expenditures; set better defined goals for return on investments; review GA planning and reduce costs; control project planning and expenses; and devise more equitable National Subscription calculations.

The membership of the Finance Committee rotates and the Bureau was asked to provide references of candidates willing to serve.

Dr. West asked if the Finance Committee is actively looking in new revenue streams. Professor Corish answered that this was not specifically a Finance Committee role, but rather a job for all.

16.3 STATEMENT OF ACCOUNTS FOR 2012 AND 2013

Again, Prof. Corish referred to the Agenda book. He indicated that the accountant was working with the auditors. He pointed out that while the overall outcome from January 2012 to June 2013 shows an excess of about USD100k of income over expenditure, the 2nd part of the year includes the overspend on the General Assembly in Istanbul. Unfortunately, the audited accounts for the biennium were not available at the time of the Bureau meeting.

ACTION 10: Circulate the Year 2013 Audited Financial Statement when available (J. Corish)

16.4 REVIEW OF BUDGETS FOR 2014-15

Prof. Corish referred to the budget approved last year by Council for the 2014-15 biennium and which shows an overall reduction of USD 1.2M compared to the

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previous 2012-13 biennium. The budget was based on the understanding that the publishing operations will be taken over by De Gruyter and including not only the production expenses, but also the *Pure and Applied Chemistry* subscription incomes. A potential implication was a detrimental cash flow given the loss of subscription income early in the calendar year. The contract was renegotiated to provide a prepayment to IUPAC.

Prof. Corish confirmed that IUPAC has sufficient reserves to maintain its activities. It may be advantageous to borrow rather than sell assets. IUPAC has some currency protection as it holds accounts in both Euro and USD.

16.5 NAO AND ANAO PAYMENT STATUS

Prof. Corish reviewed the status of National Subscription payments. As of April 2nd, 16 NAOs had already paid their annual subscription for 2014, providing a revenue of about USD 216k (by the end of the year the total subscription should amount to about USD 800k)

Bangladesh, Cuba, Cyprus, Greece, Luxembourg, Pakistan, Spain, Tanzania, Turkey, and Ukraine still have to pay their 2013 dues.

Only Greece is late also for 2012 and 2011.

The Action [151EC04] *Follow-up with the communications with Greece and Cuba to explore options ensuring their continuing NAO status. (Meyers & Corish)* is in progress.

17. APPLICATIONS FOR NATIONAL ADHERING ORGANIZATION STATUS

Dr. Cesa referred to the documentation included in the Agenda book and indicated how thrilling it is to have to opportunity to welcome new members into the Union. As there were no questions, he invited the Bureau to consider the motions spelled out in the Detailed Agenda.

Motion 1: *The Bureau approves the provisional NAO application, contingent on payment of their National Subscriptions for 2014, of the Costa Rica National Nanotechnology Laboratory-High Technology National Center, the Sociedad Colombiana de Ciencias Químicas, the Kazakh National Academy of Science, and the Comité Sénégalais pour la Chimie.*

By show of hands, the motion 1 above was passed unanimously and the Bureau approved provisional NAO status for Costa Rica, Colombia, Kazakstan, and Senegal contingent on payment of their National Subscriptions for 2014. This decision of the Bureau must be ratified by Council at its next meeting in August 2015, or membership will be revoked and the dues refunded. The provisional membership throughout 2014 will accord all the benefits of membership except for voting rights in

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the Council meeting. Council may allow these newly admitted NAOs to vote at the Council meeting on all items after the ratification of membership.

Motion 2: *The Bureau approves the ANAO application, contingent on payment of their National Subscription, of the Ghana Institute for Pure and Applied Chemistry.*

By show of hands, motion 2 above was passed unanimously.

ACTION 11: Follow-up with welcome letter to be sent to the new NAOs/ANAO (Meyers/Acting Secretary General/President)

18. REPORT FROM THE MEMBERSHIP RELATIONS COMMITTEE (MRC)

The MRC met on Friday afternoon, 11 April 2014 and Prof. Tatsumi reported that there was agreement to continue recruitment efforts for new NAOs, with regional responsibilities allocated to MRC members.

The following Action Items were ongoing in relation to this:

[93BU16] Review IUPAC speaker pack – all/Secretariat
[93BU17] Review Past Presidents NAO slide pack - all

18.1 A POLICY TO INCREASE NUMBER OF NAOs'

The Bureau reviewed the one-page memo provided by Prof. Jan Reedijk and included in the Agenda Book. This was intended to trigger a discussion on the tangible incentives IUPAC provides to encourage potential NAOs to join and how the conferences sponsorship program fits within that strategy.

It was noted that a specific strategy of choosing conference sites in non-member countries is one adopted by other Unions, e.g. IUCr. IUPAC instead reserves sponsorship as a benefit to members.

Prof. Zhou argued that the most important question is how IUPAC serves its NAOs better. IUPAC must present its services to its NAOs more effectively and report what it does, and how the dues are used. NAOs have a challenging task to secure their subscription and must in turn report to their government agencies on the benefits of IUPAC membership.

Prof. Garcia-Martinez supported the concern that an annual report illustrating clearly what IUPAC does and how is currently missing.

Mr. Humphris emphasized that IUPAC needs to be clear why it wants new members and asked whether there were priority countries to attract. It is not simply about subscription income, as many 'small' countries contribute a net loss. Targeting industrially-wealthy countries would be beneficial economically and

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help to avoid an unbalanced representation by an overwhelming number of smaller NAOs.

Mr Humphris also stressed the value of documenting how each new member was convinced to join in order to build our understanding and learn from experience. It was likely that incentives to join need to be tailored to each potential country with regards to how they perceive the value of IUPAC to their chemistry community.

Prof. Brett asked for the National Subscription data for potential members to be available to MRC members. It was noted that whilst the Finance Committee intends to review how the subscriptions are calculated, the MRC is also interested and particularly concerned with the fluctuations that occurred from year to year. A more predictable subscription is important both for current and prospective members.

Dr. West indicated that COCI's concerns are similar with the Company Associates programme and that it is important to formulate a 'value proposition' for new members in all categories.

ACTION 12: MRC to review ways to better serve our NAOs in consultation with the Treasurer.

19. FELLOWS AND AFFILIATE MEMBERSHIP PROGRAMS

The Bureau noted that as of December 2013, the number of Fellows on record was 2019. As members retire, this number continues to increase slowly. For comparison that number was 1582 in 2008. There was some concern, however, that records are not up-to-date and that IUPAC may be losing touch with some Fellows. With this in mind the following pending Action item was raised at the most recent Executive Committee meeting:

[151EC05] Establish a procedure to confirm Fellow status every 3 years to ensure that the records are current with respect to contact information. If no confirmation received, assume status termination (Secretariat)

The Bureau also reviewed the Affiliate Membership Program (AMP). In 2013 there were 2022 paid Affiliates through NAOs (1297 from the ACS and 725 from other chemical societies). In addition, there are 34 individually paid Affiliates, 104 individual sponsored Affiliates, and 160 sponsored Affiliates through chemical societies. The grand total for the year 2013 is therefore 2320 (compared to 2382 in 2012, 3848 in 2008 and 4752 in 2003).

Prof. Reedijk was concerned by the decrease and asked what steps might be taken to reverse the trend.

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Mr. Humphris suggested that the Affiliate Membership Program needed review and felt that the MRC should undertake this. As with country members what is the value proposition to Affiliates. The AMP should be more than being a *Chemistry International* subscriber. Dr. Cesa however mentioned that ACS advertises IUPAC affiliation as a *CI* subscription and not membership.

ACTION 13. Review of the Affiliate Membership Programme and its value to members with a view to increasing Affiliate membership (MRC)

20. PURE AND APPLIED CHEMISTRY & CHEMISTRY INTERNATIONAL TRANSITIONS TO DE GRUYTER

Dr. Cesa reviewed the transition process of both *Pure and Applied Chemistry* and *Chemistry International*. Two transition teams, one for each publication, ensured the timely implementation of changes in workflows to allow production of the first issues of the year 2014. Both teams worked from September 2013 and had regular calls through to the end of 2013. Both *Pure and Applied Chemistry* and *Chemistry International* are now produced by De Gruyter. Going forward, Dr. Cesa explained that the partnership with De Gruyter is designed to grow the subscriber bases of both *Pure and Applied Chemistry* and *Chemistry International*. He reported that together with Bonnie Lawlor and Dave Martinsen, he met with De Gruyter in March to review the ongoing progress and review the plans for next year. There were issues with the late provision of *Pure and Applied Chemistry* subscriber details that led to an initial dip in sales. Dr. Cesa also explained that De Gruyter had been asked to consider better alternatives to display *Chemistry International* online; the De Gruyter platform is designed more for journals than a newsmagazine.

Prof. Marquardt mentioned that there had been problems with handling *Pure and Applied Chemistry* proofs. He stressed that IUPAC needs to ensure that the *Pure and Applied Chemistry* is handled with professionalism and recommended reconsideration where the review process and workflow appeared slow. He recommended that communication between the editors and authors be streamlined. Dr. Hellwich echoed Prof. Marquardt's concerns.

Prof. Weir confirmed that adjustments have been made to avoid repeating earlier mistakes and to improve the workflow of technical reports and recommendations. He was more confident the early teething problems were behind us.

Prof. Garcia Martinez indicated that for *Chemistry International* several of the earlier suggestions offered by the transition team have not been implemented. He stated that initially the team sought an improved online presentation for *Chemistry International*. It turned out that De Gruyter is constrained to fitting *Chemistry International* within their existing online platform that is designed for journal articles.

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Prof. Brett asked why *Chemistry International* online is not simply posted all in one file.

It was noticed that *Chemistry International* on iupac.org does not provide a clear direction/access to *Chemistry International* on De Gruyter. Dr. Meyers confirmed that *Chemistry International* on iupac.org went down in March 2014 due to a system failure and that since then only the editions up to the May 2013 issue were restored. Since December 2013, the *Chemistry International* 'home page' has had a link to De Gruyter.

The question of cost was also raised; *Chemistry International* is currently free both in print and online for Members. Affiliates still receive *CI* in print, but the current subscriptions mean it is a net cost. Since January 2014, Fellows no longer receive a free printed *Chemistry International*, but they will be invited to become Affiliates if they want to receive *Chemistry International* in print. IUPAC also stopped sending free *Chemistry International* to IUPAC-sponsored conferences.

An authentication process for free access to *Chemistry International* online was not in place and therefore *Chemistry International* online is currently free to all, including current and all archive issues. De Gruyter need an authentication process if they are to sell *Chemistry International* to other subscribers.

Dr. Cesa thanked everyone for their input and again stressed the importance that the De Gruyter relationship to IUPAC success.

Dr. McConnell asked about a back-up plan if the partnership does not go well. Mr. Humphris pointed out that there are specific termination clauses in the contract to be considered in that eventuality.

Dr. Cesa explained that a new team will continue to work with De Gruyter to develop the partnership that is of strategic importance for IUPAC. Representing IUPAC are Colin Humphris, Sean Corish, Javier Garcia Martinez, Steven Bachrach, and Dave Martinsen.

21. STATUS REPORT ON IUPAC SECRETARIAT

21.1 SECRETARIAT OFFICE

Colin Humphris explained that he visited the RTP office in February 2014 with two primary objectives: to build on the work of Tom Tritton to improve the understanding of the work processes and therefore the key administrative requirements for an incoming Executive Director, and to assess how best to assist the Secretariat staff in their day-to-day work in the interim, including IT service, now and immediate future. Mr. Humphris's report is enclosed in the Agenda Book. This was all in response to the action [151EC02] *Establish a task group to provide recommendations on how the office shall work in collaboration with the Officers and EC, and how to exercise*

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control and oversight of the budgets. Humphris, Corish, and Cesa will undertake the task. In addition, a member of the Finance Committee will be asked to participate.

21.2 SEARCH FOR A NEW EXECUTIVE DIRECTOR

The Search for a new Executive Director was ongoing. Mr. Humphris referred to his reports in the Agenda Book and indicated that he and the officers had reviewed the office functions in order to clarify the strengths an Executive Director should bring to serve IUPAC better. He recognized that the staff had been working under unusual and difficult circumstances. The Executive Committee recognized that the Executive Director will need to be not only a good administrator but also financially aware. Mr. Humphris commented that the Executive Director profile had been distributed to various US networks and the deadline for application was set as April 18. The approach differed from previous recruitments with the post advertised on career websites for directors and managers of not-for-profit organisations. The Bureau is asked to note this process and also to promote the vacancy to suitable candidates who were able to work in the USA. The search team comprising Colin Humphris, Sean Corish, Natalia Tarasova, Laura McConnell, Mark Cesa, plus the current CEO of Chemical Heritage Foundation (CHF), Carsten Reinhardt, will review the applications.

If this initial scoping provides suitable candidates, the recruitment could proceed in a timely fashion and possibly be completed by July 2014. The cost of advertising the role so far was approximately USD 450 in comparison with USD 20,000 two years before.

The change in approach was in part in response to action [151EC24] *To revise the Executive Director advertisement to reflect that the revised balance of the priorities for the role and core competencies. (Humphris, Cesa, Corish).*

Prof. Garson commented on the importance to have an Executive Director with experience, and asked what will be the length of the contract. Dr. Cesa indicated that in US it is customary that such employment is 'at will.'

21.3 WEB STATUS REPORT

Mr. Humphris commented on the web status report included in the Agenda book. The handover from Bryan Pearson had proved inadequate, with opaque processes and poor documentation. The web service had suffered further from a failure at the server host related to bad weather. As part of his assessment of the tasks performed in the office, he had recommended not to fill the position vacated by Bryan Pearson to give the incoming Executive Director the opportunity to review office skills requirements. Specialist support was available to Paul LeClair. The current status was relatively stable, but remained an ongoing concern emphasizing the need for the Website review (see next item).

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22. IUPAC WEB SITE

Bonnie Lawlor started by outlining the charter of this new work group that is *“to assess the current state of the IUPAC Web site and recommend improvements that will bring the site quickly and inexpensively to a state that is satisfactory for our NAOs, volunteers and the chemical and general publics.”*

This was in response to the action [93BU15] *CPEP to prepare a website development plan and invite CPEP chair to present a development plan.*

The overall objective is to have an alternative website available for consideration by the Busan General Assembly. The task will initially include firstly an assessment of needs with recommendations delivered by August 2014, followed by a second technical group to consider the best ways to deliver the recommendations.

The scoping group met on Friday morning, 11 April 2014, the day prior the Bureau. It quickly recognized that the current site portrays a poor image of IUPAC, that it is not up to date, that it has nothing to engage young chemists, and that navigation was poor with far too many links/clicks to the information that users seek.

The group will proceed promptly by developing a survey (probably using “survey monkey”) to seek feedback from members, NAOs, TGC/TGMs, etc. and accessible via the current homepage. At the same time the group will review other websites to identify attractive features and functionalities, and review published best practices.

Ms. Lawlor assured the Bureau that they will be kept informed of what is happening and how it is developing.

Ms. Lawlor also stressed that while the second group will overlap with the first, she does not favor the idea of having technical input too early as this can limit the creative development of options and a new vision for the site.

Prof. Hartshorn pointed to the importance of identifying the target audiences/users and the extent to which this includes lay users and the public.

Mr. Humphris suggested that it might be valuable to seek advice from other NAOs, societies and organizations regarding their website experience.

Prof. Marquardt confirmed that he will survey Division I and ask collect ideas from his colleagues. He commented that the website should be simplified to be more manageable, easier to update and use.

Ms. Lawlor thanked everyone for their input.

ACTION 14: Website: suggestions from all to be returned by email to B. Lawlor

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23. STRATEGIC REVIEW

In response to action [93BU06] *Establish a task group to initiate and coordinate a review of the IUPAC strategic plan*, Dr. Cesa informed the Bureau that a strategy group has been established.

The group includes Javier Garcia Martinez, Richard Hartshorn, Natalia Tarasova, Jung-Il Jin (former President) and Maria van Dam-Mieras (former Elected member on the Bureau from Netherlands), and Fabienne Meyers.

Those who were present in Coimbra were to meet in the afternoon after the Bureau and to establish a frame and timelines towards an outline a vision statement. This would address how IUPAC should continue to deliver its scientific expertise to the wider international community.

Dr. Cesa acknowledged the valuable input provided by the Vice President in her earlier report.

24. CURRENT PROJECTS

Dr Meyers reported that the following actions were in progress:

[151EC08] Review systematically the projects portfolio and terminate the projects recorded with a past proposed end date (prior Dec 2013) and that have not spend any funds (i.e. apparently not yet initiated). (Meyers)

[151EC09] Coordinate with the incoming DPs a systematic review of their projects portfolio so that a clean slate is available by next Bureau. (Meyers)

Monies were being returned for general use from completed or terminated projects. Dr Meyers was working with Division Presidents to clean up the project portfolio.

24.1 PROJECT COMMITMENTS AND EXPENSE REPORTS

Dr Meyers described the key project system reports:

- The “Commitment Report” is specific to the current biennium and provides a summary of the approvals made since the beginning of the biennium,
- The “Project Expenses” report is a complete list of all current projects, sorted by Division. A copy is regularly shared with Task Group Chairs.
- The “Proposal under Review” is a report that summarizes the status of the project proposals currently tracked in the submission system.

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Prof. Corish referred to the reports included in the Agenda Book and urged the Division Presidents again to review and monitor closely the activities under their Division portfolio.

Prof. Brynn recognized that overdue projects are often a consequence of the unfamiliarity of the task group chair with IUPAC. A remedy adopted by Division V is to assign a Titular or an Associate Member to the group just to ensure that progress is made and that communication with the Division Committee is on-going.

25. REPORT FROM PROJECT COMMITTEE (PC)

Prof. Doug Templeton succeeded Prof. Kip Powell in January 2014. He reported that the Project Committee had a good meeting on Friday afternoon, 11 April 2014 prior the Bureau. They reviewed action [151EC10] *Coordinate the PC review of the project proposal application form and of the questionnaires shared with reviewers and to DPs (adding in the form a question asking TGC to provide update on their other current projects if they have any and on the questionnaire, consult with the EvC).*

He pointed out that the Division Presidents should expect a relatively lower success rate when referring proposals to the Project Committee in view of the reduced budget. The Project Committee recommended no change to the submission form and the review process in general.

Prof. Templeton asked the Bureau to be aware of issues when project proposals include matching funds from other sources. If these are subsequently not forthcoming it can be difficult for the project to proceed. Prof. Lamba observed that IUPAC does not have easy ways of keeping track and accounting for these matching funds.

Prof. Marquardt suggested that the project approval should be conditional on the award of the matching funds. Mr. Humphris concurred that a conditional approval should be an option.

A second issue raised by Prof. Templeton related to a proposal for support to a CHEMRAWN conference. The Treasurer confirmed that these conferences should be self-supported and no project funds should be allocated.

26. REPORT FROM EVALUATION COMMITTEE (EVC)

Prof. Hartshorn started his presentation by reviewing the Terms of Reference as written in 1999. He stressed that the task to establish criteria to assess *each* project was practically impossible and that to evaluate individual project impacts would require expertise far broader than can exist in a small committee.

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He pointed out that previous EvCs have tackled different aspects of the system. Under Ron Weir's chairmanship, the EvC reviewed a sample of projects and their conclusion was that these projects achieved their objectives (Weir's report 2009). Later under Stan Penczek, the committee looked at the overall portfolio of projects, summarizing the statistics of the countries evolved, national diversity of the task groups, and the numbers of years to completion. Again the conclusion was that the portfolio had a reasonable fit with IUPACs strategy (Penczek's report 2013).

As written, the Terms of Reference do not reflect the tasks being accomplished. The current EvC is concerned with providing a success/failure analysis and lessons learned.

Prof. Hartshorn pointed out that the evaluation system should fit with the strategy review and that it could reflect more of an audit role.

Prof. Hartshorn proposed that the EvC revise its Terms of Reference and sought endorsement for the Bureau. Prof. Weir supported this.

By show of hands, the Bureau unanimously approved an EvC review of its Terms of Reference for approval by the Bureau or Council as necessary.

ACTION 15: EvC to prepare and propose revisions of its Terms of Reference (Hartshorn)

27. COMMITTEE ON CHEMISTRY RESEARCH FUNDING (CCRF)

Prof. Tatsumi reviewed the history and mission of the CCRF. It was established under the auspices of IUPAC in response to efforts by concerned chemists and officials of national funding agencies seeking to promote international collaboration in research in the chemical sciences. The first call was in polymer science. The second call in novel molecular and supramolecular synthesis approaches to sustainable catalysis was supported by 4 agencies: the US National Science Foundation (NSF), the Deutsche Forschungsgemeinschaft (DFG) (German Research Foundation), the National Natural Science Foundation of China (NSFC), and the Fundacao de Amparo a` Pesquisa do Estado de Sao Paulo (FAPESP) (the Sao Paulo Research Foundation) of Brazil.

Prof. Tatsumi hoped that other countries such as Portugal and France, who did participate in the first call, could become involved in later calls.

It was noted that each call has its own manager, supported by a NSF grant; and also that Markus Behnke (Program Director at the Deutsche Forschungsgemeinschaft (DFG) German Research Foundation) is acting secretary. This year the CCRF meeting will provide a platform for discussion and for identifying the scientific topic of the third call. Prof. Tatsumi invited suggestions and ideas for a theme such as health.

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Prof. Buback reminded the Bureau that one problem with the first call was the disappointment of the awardees having no chance to receive follow-up funding.

Dr. McConnell commented that Division VI was not really affected in the second call as the project manager did the entire work.

Prof. Ober reminded the Bureau that the first call was considered an experiment to identify best practices.

Professor Brett indicated that similar programs exist in Europe and his impression was that Funding agencies will be interested.

** [151EC12] Confirm with Chris Ober that his participation in CCRF in 2014 at Macro is also on the behalf of IUPAC and the CCRF chair (as the Past President will not be present).*

28. DISCOVERY AND NAMING OF NEW ELEMENTS

Professor Paul Karol, Chair of the current IUPAC/IUPAP Joint Working Group to consider claims for the discovery of new elements, reported in March on progress to date in the Group's consideration of claims for the discovery of elements with atomic numbers of 113, 115, 117 and 118. Good progress has been made in the evaluation of the claims for all of the four elements that are being considered. The final report is being prepared.

Prof. Corish indicated that the IUPAC/IUPAP Joint Working Group has experienced delay since last December, but that the report is now in the final stage and should be available by July 2014.

28.1 PROCEDURES FOR THE NAMING OF A NEW ELEMENT

In response to action [93BU23] *Prepare document describing the process for verification of claims for and naming of new elements*, Professor Corish provided a draft in the Agenda book for comments.

Dr. McConnell asked if the document will be published and it was agreed that it could be suitable as an article for *Chemistry International*.

ACTION 16: Consideration of publishing the process for verification of claims for and naming of new elements (Corish/Meyers)

29. IUPAC-SOLVAY INTERNATIONAL AWARD FOR YOUNG CHEMISTS 2014

There were 55 applications from 20 countries for the 2014 Prizes. 12 (22%) were female. 15 (27%) (including only 1 female) relocated country between undergraduate and graduate school. The largest number of applicants were from USA (22), with 41% coming with an undergraduate degree from China. The geographic and gender

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distribution were tabulated in the Agenda Book. A summary since the prize was first awarded in 2000 is also included.

For this year award, Solvay is contributing USD 10k. Following Solvay's request, the prize was also renamed IUPAC-Solvay Award for International Award for Young Chemists, to remove any ambiguity with a separate Solvay Prize established this year. The award was announced online on iupac.org on 30 October 2013.

In Istanbul, the Prize Committee reviewed the guidelines. It was agreed that a broader geographic diversity would be desirable and to allow more NAOs to be recognized, "only one laboratory per NAO can see its PhD awarded."

Prof. Tatsumi summarized the review process and the status of the applications reviewed this year.

Prof. Buback commented that the rule of one candidate per NAO was just not practical. Prof. Garcia Martinez suggested that in the future the guidelines should be clarified and made more transparent.

Prof. Hibbert noted that his first criteria while judging the applicants is scientific excellence. Dr. McConnell pointed out that it is important to encourage more diversity in the applicant pool.

Action [151EC13] *Communicate with the 2015 Congress organizers and clarify IUPAC understanding that the awardees of the IUPAC-Solvay Award will have the registration fees waived and that they will have options to access affordable accommodations. (Meyers) is still pending.*

30. BOOKS

The following Action Items were raised last year at the Bureau meeting:
[93BU10] Division Presidents to provide initial ideas/questions to Secretary General to draft guidelines for the publication of books.

[93BU26] Division Presidents and Standing Committee Chairmen to review and report to Secretary General any new book contracts, MOUs, etc. in place.

Some items recently noted include:

- A draft of an overarching agreement with Royal Society of Chemistry (RSC) currently under examination. A specific proposal for the Silver book has been received by RSC.
- A publishing agreement with Springer, for a book titled *Chemistry Beyond Chlorine* and signed on 17 Nov 2013. The corresponding IUPAC proposal is currently under review.

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- A publication agreement with De Gruyter for a book titled *Responsible Care - A Case Study* signed 8 Nov 2013. The book was published in Dec 2013 (ISBN 978-3-11-034316-8 (<http://www.degruyter.com/view/product/247600>)).

Prof. Marquardt shared his concerns with regards royalties and argued that contracts need to be managed centrally and that contracts must be reviewed carefully.

Everyone was again invited to review their project portfolio to identify eventual book publishing agreements and to share the information with the Acting Secretary General as per action 93BU26.

30.1 ADHERENCE TO IUPAC STANDARDS IN IUPAC SPONSORED BOOKS

Prof. Weir briefly reiterated that every book should go through ICTNS to check adherence to IUPAC standards on nomenclature, terminology, symbols and units.

31. CONFERENCES AND SYMPOSIA

31.1 FINANCIAL SUPPORT FOR CONFERENCES IN SCIENTIFICALLY EMERGING REGIONS AND ON NEW DIRECTIONS IN CHEMISTRY

See Agenda Item 31.3.

31.2 RATIFICATION OF SPONSORSHIP OF SYMPOSIA

DR. CESA

Dr. Cesa referred to the report listing recently-sponsored events included in the Agenda Book and asked the Bureau to ratify the sponsorships approved since 1 Nov 2013.

Professor Garson questioned what has happened to the 28th International Symposium on the Chemistry of Natural Products that she has on record as having been approved in November. (After the meeting it was quickly clarified that the sponsorship was on record, but that it had been approved in September and therefore ratified earlier by the Executive Committee)

The motion above was passed and the Bureau approved the sponsorship of the events listed in the report included in the Agenda Book.

31.3 IS THE TERM 'SPONSORSHIP' SUITABLE?

For a number of years confusion has arisen from time-to-time in respect of the 'sponsorship' offered to suitable conferences by IUPAC. 'Sponsorship' gained through the Application for IUPAC Sponsorship (AIS) is a quality stamp and does not imply financial support. This point is made clear in the acceptance letter. However, modest support can be obtained separately by Divisions or Standing Committees for conferences meeting criteria as relevant to either "New Directions in Chemistry" or "Scientifically Emerging Regions."

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A discussion paper drafted by Professor Corish on conference sponsorship was enclosed in the Agenda book. It sought to clarify the confusion that sometimes arises with “sponsored” conferences to which IUPAC provides no funding. This was in response to action [151EC01] *Include an agenda item on the next Division Presidents/Bureau meeting to complete a review of the Application for IUPAC Sponsorship (AIS) and related guidelines. (Meyers). (same as [92BU02] Review of AIS)*

He stressed that nowadays ‘sponsorship’ equates to financial sponsorship. After some discussion, the word ‘endorsed’ emerged as the favorite alternative.

By show of hands (all in favor) the Bureau supported the change of wording and the new label ‘IUPAC-endorsed.’

Prof. Brett mentioned that some existing IUPAC conference series simply go forward with the IUPAC name and that the Secretariat should be able to anticipate applications. It was felt that the Divisions should take responsibility for ensuring the applications are made.

ACTION 17: The term ‘sponsorship’ used as IUPAC sponsorship of conference is to be changed to ‘endorsed’ – survey all documentations affected and propose implementation (Secretariat)

32. DATES AND PLACE OF NEXT BUREAU MEETING

Dr. Cesa re-opened the discussion of a Bureau meeting early in a General Assembly year. Prof. Corish indicated that Bureau meetings typically cost USD 70k, and that the alternative of meeting during the General Assembly should at least save all the air fares.

Prof. Garson asked if the Council Meeting at the General Assembly could be limited to one day to create time for a full Bureau meeting. Prof. Hartshorn, however, cautioned against limiting the Council time as it is the only time for the NAOs to meet. Sufficient time is very important to NAOs.

A general view was expressed that the Bureau should also have sufficient time to engage in broader strategic discussions, issues or critical reviews. This raised separately the need for better and more efficient meeting processes.

Mr. Humphris indicated that it may be favorable for the Bureau to meet virtually (by net-conference) early in the year to prepare in good time for the Council meeting. Dr. Cesa pointed out that one task of the Bureau is to review nomination of the officers. Prof. Hartshorn also pointed out that there are statutory timelines to respect with regards to strategic decisions of the Bureau in advance of the Council.

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Prof. Reedijk felt that it was relatively easy to compress the time spent at the General Assembly.

Dr. Cesa invited everyone to return suggestions for the Work Group on the General Assembly schedule to consider. The Workgroup should report in no more than 3 months (by end of July).

ACTION 18: The Workgroup for the General Assembly schedule to consider and provide a recommendation if the next Bureau in 2015 should be held in advance of the Busan General Assembly or as part of it.

ACTION 19: To review General Assembly/Congress schedules for iupac2017 and later (Workgroup General Assembly)

33. ANY OTHER BUSINESS

Dr. Cesa raised the question how the Bureau can work/communicate more efficiently. He indicated that the Discussion Board was suitable when it worked, but that email was the working alternative. He pointed out that often no response can be ambiguous. He suggested that when a consultation among the Bureau is initiated, that a clear deadline for response be set and that everyone should affirm her/his position, by responding yes or no.

Prof. Marquardt asked if that applies to issues that are 'for information only.' In these cases no replies are required.

There was no other business. Dr. Cesa thanked everyone for their participation. He especially thanked Christopher Brett for organizing the meeting in Coimbra, and Sociedade Portuguesa de Química for their hospitality. He thanked Fabienne Meyers for her work preparing the agenda and preparing the minutes.

The meeting closed at 12:45.

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Frequently Used Acronyms

BIPM	International Bureau of Weights and Measures
CCE	Committee on Chemistry Education
CCRF	Committee on Chemistry Research Funding
CHF	Chemical Heritage Foundation
CI	<i>Chemistry International</i>
COCI	Committee on Chemistry and Industry
CPCDS	Committee on Publications and Cheminformatics Data Standards
CPEP	Committee on Printed and Electronic Publications
CHEMRAWN	Chemical Research Applied for World Needs Committee
Div I	Physical and Biophysical Chemistry Division
Div II	Inorganic Chemistry Division
Div III	Organic and Biomolecular Chemistry Division
Div IV	Polymer Division
Div V	Analytical Chemistry Division
Div VI	Chemistry and the Environment Division
Div VII	Chemistry and Human Health Division
Div VIII	Chemical Nomenclature And Structure Representation Division
DP	Division President
EC	Executive Committee
EvC	Evaluation Committee
GA	General Assembly
IChO	International Chemistry Olympiad
ICSU	International Council for Science
ICTNS	Interdivisional Committee on Terminology, Nomenclature and Symbols
IFCC	International Federation of Clinical Chemistry and Laboratory Medicine
IOCD	International Organization for Chemical Sciences in Development
IYC	International Year of Chemistry
MRC	Membership Relations Committee
NAO	National Adhering Organization
NC	Nomination Committee
NGO	Non-Governmental Organization
NICE	Network for Inter-Asian Chemistry Educators
OPCW	Organisation for the Prohibition of Chemical Weapons
PAC	<i>Pure and Applied Chemistry</i>
PC	Project Committee
SAICM	Strategic Approach to International Chemicals Management
STC	Standing Committee
STCC	Standing Committee Chair
TGC	Task Group Chair
TGM	Task Group Member
TM	Titular Member
VP	Vice President
WCLM	World Chemistry Leadership Meeting
YO	Young Observer