

International Union of Pure and Applied Chemistry

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Minutes of the ICTNS meeting at the IUPAC GA 2009, Glasgow, Scotland, August 2nd and August 3d, 2009

1 Opening remarks and introduction of participants

Prof. John W. Lorimer called the meeting to order at 09:00 and welcomed the participants and asked them to introduce themselves:

The following persons signed as present (acronyms used later in this report, as well as acronyms indicating their relation to ICTNS are given in parentheses):

Chair:

Prof. John W. Lorimer (JL)

Secretary:

Prof. Bernardo J. Herold (BJH)

Titular members:

Prof. Robertro Marquardt (RM)

Dr. Alan D. McNaught (AM)

Prof. Ron D. Weir (RW)

Associate members:

Prof. Monica Nordberg (MN)

Prof. Amélia Pilar Rauter (AR)

Divisional representatives:

I Dr. John H. Dymond (JD)

II Prof. Jan Reedijk (substitute for Prof. Luis A. de Oro) (JR)

III AR acted as Division III representative

IV Prof. Richard G. Jones (RJ)

V Prof. Brynn Hibbert (successor of Prof. Maciej Jarosz) (BH)

VI Dr. Peter S. Fedotov (PF)

VII MN acted as substitute for Dr. John F. Duffus

VIII Prof. József Nyitrai (JN)

Representatives of other organisations:

ISO/TC12: Prof. Anders J. Thor (AT)

IUPAP: Dr. Stephen Lea (SL)

Invited observers:

Dr. Ales Fajgelj (AF)

Prof. Paul DeBièvre (PB)

Prof. Ian Mills (IM)

BH had been invited and was recognised as representative of Div. V

Prof. Gerard P. Moss (GP)

Prof. Leslie Glasser (LG)

Dr. Bedrich Kosata	(BK)
Dr. Fabienne Meyers	(FM)
Dr. Françoise Pontet	(FP)
Other observers	
Prof. Douglas Templeton	(DT)
Dr. Tyler B. Coplen	(TC)
Dr. Roger C. Hiorns	(RH)
Prof. Franco Pavese	(FP)

Prof. Hiroshi Ogino Associate Member of ICTNS sent his regrets.

2 In memoriam Val Metanowski

JL informed that, when Dr. W. Val Metanowski passed away, on 12 December, 2008, he presented condolences to the family in his own name and on behalf of all members of ICTNS. He remembered the extraordinary merits of Dr. Metanowski as Secretary of IDCNS (1996-2002) and Titular Member of ICTNS (2003-2005), as well as his commitment with the Macromolecular/Polymer Division and for having been co-editor of the “Purple Book” *Compendium of Macromolecular Nomenclature (1991)*, *Compendium of Polymer Terminology and Nomenclature IUPAC Recommendations 2008 (2009)* and co-author of many other recommendations on polymer nomenclature and terminology, as well as of the *Principles of Chemical Nomenclature (1998)*. *BJH* mentioned the essential help he received from Dr. Metanowski in his first year as Secretary of ICTNS. *RJ* praised the merits of Dr. Metanowski as member, editor and author in the former Macromolecular Division, now called Polymer Division.

3 Minutes of Torino meeting

Attachment item 3

The minutes of the ICTNS meeting in Torino on 7 and 8 August 2007 were approved with corrections of editorial nature requested by Dr. Ture Damhus after the date of distribution of the Agenda Book for the present meeting and agreed by him. ICTNS endorsed unanimously the said changes. The *Attachment item 3* to the present minutes is the corrected version.

4 Business arising from the Torino meeting

Regarding item 7 of the Torino meeting, *JL* noted that he was at that time preparing an article for *Chemistry International* and asked Danièle Gibney for opinions and suggestions, which he used for the final version. This was published in Vol. 30, n.º 2, March-April 2008.

5 Chairman’s report

5.1 Report to IUPAC Council

Attachment item 5.1

The report of the Chair to IUPAC Council, which had been distributed in time before the meeting, was discussed and approved unanimously.

5.2 Revisions to Terms of Reference and Procedure for Publication of IUPAC Technical Reports and Recommendations

Attachment item 5.2

JL presented as a slide-show the revised terms of reference of ICTNS and procedure for publication of IUPAC Technical Reports and Recommendations (see *Attachment item*

5.2). **The revised terms of reference were approved unanimously without discussion.** The debates concerning the procedures for approval were divided into two sections, as follows:

5.2.1 TRs containing new experimental data

After *JL* presented on the screen this proposal, *MN* asked whether IUPAC funding was acknowledged in papers published in journals other than *Pure & Applied Chemistry*. *JL* agreed that this was an important issue, and there should be some policy to that effect. **The proposed text was approved unanimously.**

Another issue also regarding the same item 5.2.1. was the use of IUPAC terminology, nomenclature and symbols in papers published in journals other than *Pure & Applied Chemistry*. After some discussion, **the text of following motion was put forward and approved unanimously to be added to the previously approved text:**

Permission to publish any outcome of any IUPAC project elsewhere than in *Pure & Applied Chemistry* should be given on condition of conformity with IUPAC recommendations on terminology, nomenclature and symbols.

5.2.2 Adherence to IUPAC standards for IUPAC-sponsored books

Ways of putting this proposal into practice were discussed.

The proposed text with the following addition was approved unanimously:

Permission to publish IUPAC-sponsored books should be given on condition of conformity with IUPAC recommendations on terminology, nomenclature and symbols.

5.3 Matters before the Editorial Advisory Board (2009-08-04)

5.3.1 New title page for TRs and Recommendations in *PAC*

JL presented a proposal of a new lay-out of the title page of articles in *PAC*.

5.3.2 Divisional review of manuscripts for *PAC*

Attachment item 5.3.2

First *JL* reminded the meeting of the “Guidelines for Submission of IUPAC Technical Reports and Recommendations”, as can be found on the IUPAC web site and the Handbook and secondly presented an outline of the reviewing process (see *Attachment item 5.3.2*).

There were no objections to the proposal, as long as the main comments of **the following discussion were taken into consideration in the presentation to the Editorial Board:**

RM commented that double review (Divisional plus ICTNS) lengthens the whole review process.

JL replied that, as an experiment, he is presently trying to conduct Divisional and ICTNS review simultaneously. If the result is satisfactory, this may in future become the rule.

BJH commented that there have been cases, where the same reviewer expressed no objections to a given manuscript during Divisional review, but became very critical after having been invited as anonymous reviewer by ICTNS.

AM stressed the need for a stabilization of the discussion on a given manuscript (including public review in the case of Recommendations), before ICTNS review takes place.

***RM* suggested the following change in the wording of paragraph 10:** Instead of “In principle, the Division should start a review” it should read “**The Division starts a review**”. When mentioning “MC” a footnote should be inserted explaining that the acronym means “ScholarOne Manuscript Handling System”. He also asked “there are problems here:” to be deleted in the same paragraph, line 3 and to add at the end “**ICTNS resolves that Division Presidents do not have access to ScholarOne for Divisional Review purposes.**”

The problem was raised of **whether US spelling should continue to be used in Technical Reports and Recommendations in PAC**. *JR* informed that at United Nations, Oxford spelling is used in all international documents. **It was agreed that this problem should be raised at the forthcoming meeting of the Editorial Board.**

RW expressed his opinion that reviewers should be given a shorter time than is presently the case. *RM* commented however that the latest reviews are often the best ones.

JL reminded the meeting that for Recommendations, the by-laws stipulate 5 months for public review. For ICTNS review a period of 4 months is required.

BJH reported that sometimes the editors send a decision letter to the author, even if one or more reports of invited reviewers are still outstanding. He suggested that, in such cases, a letter should be sent automatically by ScholarOne to each of these reviewers, informing them that their report is not needed any more.

Before ending the discussion of this item, *JL* informed that he will highlight some problems with Divisional review under item 6.

5.4 Current status of manuscripts in the review cycle, completed, published, in preparation *Attachment item 5.4*

JL displayed on the screen the information contained in *Attachment item 5.4*, which concerns:

- 5.4.1 Technical Reports**
- 5.4.2 Recommendations**
- 5.4.3 JCGM¹ documents**

6 Discussion of review of manuscripts, with examples

Attachment item 6

JL presented a slide-show on this subject, the text of which is reproduced in *Part 1 of Attachment item 6*. *BJH* referred to specific aspects of reviewing manuscripts for errors in chemical nomenclature, outlined in *Part 2 of Attachment item 6*.

7 Reports from IUPAC Division Representatives

In the following discussions, the reports were taken as read, except for Part 2 of the report of Division II, which had not been sent before the meeting and was presented by *JR*. The

¹ JCGM Joint Committee for Guides in Metrology with BIPM Bureau International des Poids et Mesures

Division Representatives, which were present added comments, when necessary, and replied to questions by the Members and other participants.

7.1 Division I Physical and Biophysical Chemistry *Attachment item 7.1*

JD, as author of the report and representing Division I, was present and ready to answer questions. Regarding paragraph 2(f) "Recommendations for nomenclature and databases for biochemical thermodynamics" (Project No. 2006-023-3-100), *JL* commented that in case IUBMB posts the draft document on its site, IUPAC should not be mentioned, because the document has not been approved by ICTNS. *RW* offered to cooperate with Dr. Robert Goldberg, in order to overcome the present difficulties with this project.

7.2 Division II Inorganic Chemistry *Attachment item 7.2*

Prof. Luis Oro, Representative of Division II on ICTNS during 2008-2009 had sent a report (Part 1 of *Attachment Item 7.2*). His replacement *JR*, presented a supplement to the report (Part 2 of *Attachment Item 7.2*).

7.3 Division III Organic and Biomolecular Chemistry *Attachment item 7.3*

AR, representing Division III, was present and ready to answer any question. *JL* moved that the **project (2008-002-100) by C.L. Perrin "Update of IUPAC Glossary of Physical Organic Chemistry" should involve the cooperation of Divisions I and III.** The motion was approved unanimously.

7.4 Division IV Polymer *Attachment item 7.4*

RJ, representing Division IV, was present and ready to answer any question.

7.5 Division V Analytical Chemistry *Attachment item 7.5 and supplement*

BH informed that Prof. Maciej Jarosz has resigned as divisional representative and that he (*BH*) was replacing him. The author of the report *AF* was present, made comments on the report and answered questions. Regarding paragraph 1.4 of the report, *JL* asked for each of the organizations quoted, who were the persons representing IUPAC. Given the replies to these questions, *JL* concluded that the matter would need some additional clarification. He also requested that reports on the activities of these organizations received by IUPAC representatives to be sent to the Chair of ICTNS. *BH* presented a supplement of the report of *AF* on recent activities of JCGM-WG1 (GUM Guide to the Expression of Uncertainty in Measurement).

AF raised the problem of quality control of publications, which although involving IUPAC, are published by other organizations and not in *Pure and Applied Chemistry*. *JL* informed that he hoped that the Executive Committee would approve a proposal, which he submitted on behalf of ICTNS, dealing with that problem.

7.6 Division VI Chemistry and the Environment *Attachment item 7.6*

PF was present and answered questions. *JL* commented that there should be collaboration with Division VII, because the terminology overlaps to a great extent. *MN* confirmed the readiness of Division VII to collaborate. *RM* asked whether there

is cooperation with Division III on Green Chemistry. *PF* replied and *AR* confirmed that Green Chemistry is being discussed in both their divisions as an interdisciplinary project involving several divisions. *RM* mentioned that the forthcoming congress on bio-Diesel will reveal the need for a common terminology.

7.7 Division VII Chemistry and Human Health *Attachment item 7.7*

MN as divisional representative and *DT* as President of Division VII were both present and answered questions jointly. In section “Overview” in second line, instead of (MC) read (MCDD).

7.8 Division VIII Chemical Nomenclature and Structure Representation *Attachment item 7.8*

JN was present and answered questions.

Regarding Topic 1.1 of the Division VIII plenary meeting, “The IUPAC International Chemical identifier (InChI)”, project 2007-052-1-800 *AM* reported the following:

“The InChI project has evolved to the point where we felt that its future development and promulgation required a new management system that will provide stable and financially viable administrative arrangements for the foreseeable future. This is necessary in order to give the chemistry community the confidence that facilities for development, maintenance and support of the InChI algorithm are firmly established on an ongoing basis. This new management system is provided by means of the recently established InChI Trust, an independent not-for-profit entity paid for by the community of chemistry publishers, software developers and database providers. Membership at present includes Elsevier, Thomson Reuters, Nature Macmillan, the Royal Society of Chemistry, Taylor and Francis, and Symyx, and office and computing facilities are provided by FIZ-Chemie (Berlin). Authority for the InChI standard continues to be provided by IUPAC, through the Division VIII InChI Subcommittee.”

Regarding Topic 1.2 of the same meeting, *JN* informed that the New Blue Book is expected to be ready by the end of 2009. *JL* pointed out that the review process will be a shorter one than usual, because a first version has been already reviewed and there are only minor changes to that version. Chapter 9 “Specification of configuration and conformation” will require, however, a review by specialists, because of its complexity and because it has undergone more changes in relation to the first version, than other chapters.

8 Reports from Representatives of Other International Organizations

8.1 Report from IUPAC Representatives to JCGM - P. de Bièvre, A. Fajgelj and B. Hibbert

PB explained that JCGM Joint Committee for Guides in Metrology of BIPM Bureau International des Poids et Mesures has a working group 1 (WG-1), who is going to produce a revised GUM Guide to the Expression of Uncertainty in Measurement, and that it is constituted mainly by mathematicians and statisticians.

JL asked how many supplements will be published. *BH* replied that seven supplements are in the process of being finished but that the new GUM will incorporate these supplements.

AF mentioned that regarding the compliance to approved terminology, the term “GUM-compliant” signifies a lower degree of compliancy than “VIM-compliant”, where VIM means International Vocabulary of Metrology.

JL asked *PB* and *BH* to produce a written summary (see *Attachment item 7.5. Supplement*).

8.2 Discussion of Implementation of the “New” SI

8.2.1 BIPM (Bureau International des Poids et Mesures)

Attachment item 8.2.1

Dr. Andrew Wallard had presented his regrets for not being able to be present and sent the attached report.

AT pointed out, regarding paragraph 3, line 3, that electricity is not a quantity, and therefore it should read “current intensity”.

8.2.2 ISO/TC12 International Organization for Standardization / Technical Committee 12 – Quantities and Units

Attachment item 8.2.2

AT, author of the attached report was present and offered to reply to questions.

8.2.3 IUPAP International Union of Pure and Applied Physics

Attachment item 8.2.3

SL the author of the attached report was present and replied to questions and comments. *JL*, regarding the title of the report, pointed out that in IUPAC, what is mentioned as “nomenclature” is called “terminology”, because “nomenclature” refers in IUPAC to naming chemical entities. *RM* was concerned about the efficiency of communication between IUPAC and IUPAP, when he verified that *SL* does not know Prof. Jeremy G. Frey, representative of IUPAC at IUPAP, nor has he a copy of the IUPAC Green Book. He mentioned that there seems to be a disagreement with the chemical community about the usage of the terms “flux”, “flow” and “flow rate”. *IM* asked how long the updating of the IUPAP Red Book would take. In the last but one line of the paragraph referring to the IPAP Red Book, instead of “IUPAC ... Orange Book” it should read “IUPAC ... Green Book”.

8.2.4 Presentations and discussion of revised definitions of SI base units

Attachments item 8.2.4.1-3

8.2.4.1 Documents distributed with the Agenda: The documents distributed with the Agenda prior to the meeting (Attachment item 8.2.4.1) were taken as read and discussed after the following presentations.

8.2.4.2 Presentation by *IM*: *IM* presented the new definitions considered by CCU (Consultative Committee for Units of BIPM) for the kilogram, ampere, kelvin and mole to fix the values of *h*, *e*, *k*, and N_A respectively, and a new format for the formal definitions of the base units of the SI. The talk was supported by a slide-show (Attachment item 8.2.4.2).

8.2.4.3 Presentation by *PB*: *PB* gave a presentation with the title “The SI single crystal approach to the Avogadro constant and the redefinition of the SI units kilogram and mole” (Attachment item 8.2.4.3).

8.2.4.4 Discussion and motion on revised definitions of SI base units. A lengthy discussion followed these presentations. During the discussion the following motion was put forward by the Chair:

“Given that: (a) definition of the mole in terms that are independent of mass is desirable; (b) the mole is often thought of by chemists as an Avogadro number of entities; and (c) the name of the SI base unit (amount of substance) has been a source of much confusion, ICTNS recommends to the Bureau that:

The recommendation of the CCU (Consultative Committee on Units) of the BIPM, that the mole be defined as follows:

“The mole, unit of amount of substance of a specified elementary entity, which may be an atom, molecule, ion, electron, any other particle or a specified group of such particles, is such that the Avogadro constant is equal to exactly $6.022\ 141\ 79 \times 10^{23}$ per mole.

Thus we have the exact relation $N_A = 6.022\ 141\ 79 \times 10^{23} \text{ mol}^{-1}$. The effect of this definition is that the mole is the amount of substance of a system that contains $6.022\ 141\ 79 \times 10^{23}$ specified elementary entities.”

be supported by the IUPAC, under the following conditions:

1. The greatest effort should be made to change the name of the SI base unit at the same time that a new definition of the mole is approved.

2. The name preferred by IUPAC for the SI base unit is “chemical amount”.

3. A note should accompany the new definitions to explain that the mass of a ^{12}C atom is now an experimental quantity (known at present to a relative uncertainty of 3×10^{-9}), and that the simple relation connecting the mole and molar mass remains unchanged.”

During the discussions several amendments were proposed and discussed. The following amended motion was approved by 8 votes in favour and 2 abstentions, all ICTNS members present took part in the ballot²:

Given that:

(a) definition of the mole in a way that is independent of mass is desirable;

(b) the mole is often thought of by chemists as an Avogadro number of entities; and

(c) the name of the ISQ base quantity “amount of substance” has been a source of much confusion, ICTNS recommends to the Bureau that:

The recommendation of the CCU (Consultative Committee on Units) of the BIPM, that the mole be defined as follows:

² The only apparently contrary vote was caused by a misunderstanding, and has to be counted as a vote in favour: The meeting had understood that the motion was being voted as amended, but one member was under the impression that the ballot was about one of the amendments, which concerned only a detail which the member recognized later not to be sufficiently relevant to justify a contrary vote to the amended motion (inclusion of the unchanged three last notes of the original motion).

“The mole, unit of amount of substance of a specified elementary entity, which may be an atom, molecule, ion, electron, any other particle or a specified group of such particles, is such that the Avogadro constant is equal to exactly $6.022\ 141\ 79 \times 10^{23}$ per mole.

Thus we have the exact relation $N_A = 6.022\ 141\ 79 \times 10^{23} \text{ mol}^{-1}$. The effect of this definition is that the mole is the amount of substance of a system that contains $6.022\ 141\ 79 \times 10^{23}$ specified elementary entities.”

be supported by the IUPAC, with the following suggestions:

1. The greatest effort should be made to change the name of the ISQ base quantity “amount of substance” at the same time that a new definition of the mole is approved.
2. A note should accompany the new definition to explain that the molar mass of ^{12}C will be an experimental quantity, with a relative measurement uncertainty of about 1.4×10^{-9} .

8.3 IUBMB International Union of Biochemistry and Molecular Biology

GM presented the nomenclature committee of IUBMB and explained that this committee is not project based like Division VIII of IUPAC. Its activities are rather a continuous process. Much of the effort is focussed on the characterization and classification of enzymes. At present about 4800 enzymes are already listed and this number is growing very fast. The entries are reviewed both by an internal and a public process. Presently 15 entries are under public review. The interface with IUPAC is mainly in the nomenclature of molecules other than enzymes, as e.g. flavonoids, small molecules of biological interest and carbohydrates.

JL referred to a pending paper on biochemical thermodynamics, where the problems are rather of terminology than of nomenclature. It should not be seen as a recommendation. *RW* offered to work with Dr. Robert N. Goldberg (National Institute of Standards & Technology) on this subject. *GM* reported that the revision of the document which is in the hands of JCBN Joint Commission on Biochemical Nomenclature will be studied in collaboration with Division I. IUBMB will probably publish it not as a joint IUBMB-IUPAC document but independently.

8.4 IUCr International Union of Crystallography

Prof. André Authier was not able to attend but informed the chair after the adjournment of the meeting that he would continue to represent IUCr on ICTNS.

8.5 IUPHAR The International Union of Basic and Clinical Pharmacology

Attachment item 8.5

After the adjournment of the meeting, Dr. Michael Spedding sent the two documents, which give information about the activities of IUPHAR. He expressed his readiness to represent IUPHAR at ICTNS and that he regrets however not being able to be more active for IUPAC. The Secretary ICTNS reassured him that we value the possibility of having thus a link to the important organization, which he is serving.

9 Review of sections of the IUPAC on-line Handbook – A. Jenkins (by invitation)

9.1 Current status

Attachment item 9.1

Prof. Aubrey Jenkins had sent his apologies for not being able to attend the meeting. His attached report was thankfully acknowledged and taken as read.

9.2 Future directions – continuing ICTNS project?

9.3 Interactions with CPEP (Committee on Printed and Electronic Publications) – Chair of CPEP LG

Items 9.2 and 9.2 were taken together in the following discussion:

JL opened the debate by asking which direction the updating of the Gold Book should take in the future. *BK* said that he expected in the first place ICTNS to appoint somebody who gives instructions on which entries of glossaries etc. should be incorporated in the Gold Book. As a second issue he referred to opinions he had heard, that some important basic terms are missing and asked how ICTNS would address this problem. *JL* explained that he would not like the Gold Book to develop into something similar to Wikipedia. It seems important for him to keep the character of authority insured by the entries stemming from glossaries, which were published in *Pure & Applied Chemistry*, after going through an extensive and selective internal and public review process. *AM* mentioned the existence of a list made available by the Royal Society of Chemistry of numerous terms for which no definition exists in the Gold Book. *RM* commented that the introduction of these and other undefined terms would have to be an interdivisional project. He underlined however the fact that this task would be far too laborious to be carried out by the divisional representatives on ICTNS. *BJH* mentioned that the problem had been already discussed 2007 in the Torino meeting, without leading to a final conclusion. He advocates setting up a special independent interdivisional task group, which would prepare the proposals of new entries. These proposals would be judged by ICTNS (including the divisional representatives) through an internal and public review process, before being approved as new entries for the Gold Book. *AF* agreed with *RM* that this would be a too heavy work-load to be handled only by ICTNS and that a specially appointed task group would be necessary. He also pointed out that there are many terms used in the Orange Book, which are not in the Gold Book. *BJH* gave some examples of inconsistencies between the definitions, which already exist in the Gold Book. *LG* mentioned that, in the latest on-line version of the Gold Book one can, for each term, not only find its definition, but also every occurrence of that same term in the text of other definitions, and thus detect situations where, in the definition of a given term another term is used with a meaning different from the definition in its entrance proper. This shows that in future, the way Prof. Aubrey Jenkins handled the introduction of new entries can be expanded into a method, which would lend to the whole Gold Book more internal consistency. *BH* recommended taking into account the demands required by higher level organizations like VIM (International Vocabulary of Metrology) etc. *LG* thinks that this will be a never-ending task. *JL* pointed out that authors of recommendations, which contain glossaries should be made more aware of the fact that the definitions of terms will end up as entries of the Gold Book, and should therefore check by themselves for potential internal inconsistencies, which the introduction of such an entry would create in the Gold Book. *RM* remarked that the first phase of the work should be to cross-check the existing entries for contradictions, and that only later (two or three years) one might consider the other necessary tasks as a natural continuation of the first phase.

JL insisted that one must arrive at a practical solution and proposed as

First step: To decide who will continue to do the updating, carrying on what Prof. Aubrey Jenkins has been doing. He doubts that ICTNS has the possibility to

support a special project committee through its budget. He suggests therefore ICTNS to sponsor a formal project. The first job of the project leaders would be to recruit people from the divisions, and then produce a formal project. He wants to get VIM (International Vocabulary of Metrology) into the Gold Book, because IUPAC has approved it. GUM (Guide to the Expression of Uncertainty in Measurement) is similar, but will require more work to decide what is reasonable to be included.

Second step: The introduction of new terms needs a different approach. Therefore a second project will have to be submitted to the project committee. This would include the analysis of existing lists of terms. A report on the results of this work would have to go to an internal and public review in order to be published in *Pure & Applied Chemistry*.

Third step: A practical way will have to be devised to introduce as the last step the results of the projects into the Gold Book.

BK agrees with the strategy of submitting two projects.

BH mentioned that the definitions of the 2nd edition of the Green Book are already in the Gold Book, but not the ones of the 3rd edition. *JL* replied that the 3rd edition does not contain definitions in a format suitable for the Gold Book. *RM* added that the planned on-line edition of the Green Book, the index will act as if it were a glossary.

LG informed that CPEP (Committee on Printed and Electronic Publications) would like to start putting the Red Book on the web. Following that they would like to convert the Green Book into something, which could be put on the web. He admits that Division I cannot do this, but will be asked to give advice on how to do it. *RM* noted that the planned edition of an abridged version of the Green Book includes the checking of the terms taken from the 2nd edition into the Gold Book.

LG appealed to the Divisions not to go ahead independently, because he foresees that in future many new formats of publication may have to be considered, like electronic books *etc.*

JL said that ICTNS could handle anything related to content (continuation of Prof. Aubrey Jenkins' work), as well as new entries which become available through *Pure & Applied Chemistry* publications.

At the end of the discussion the following consensus had been reached regarding submissions to be made to the Project Committee:

It was decided to propose two new projects. One project would plan to continue updates by means of a committee comprising one representative from each Division. The other project would address a list of terms supplied by the RSC that are not defined in the Gold Book, how to include these and construct specific entries to be carried out by a Task Group.

10 Update on status of 'colour' books

10.1 Green Book – R. Marquardt, A. Thor

The subject had been already treated under Item 7.1. References were also made during the discussions of Items 9.2 and 9.3.

10.2 Blue Book – J. Nyitrai

The subject had already been discussed under Item 7.8.

10.3 Purple Book – R. Jones

Attachment item 7.4 contains the relevant information.

10.4 Orange Book – A. Fajgelj and B. Hibbert

The relevant information is contained in Attachment item 7.5.

10.5 Silver book – F. Pontet (by invitation)

FP presented herself as the task group leader for the revised edition of the Silver Book. A first draft is expected for 2010. Presently, comments on the first edition are being collected. The new edition will contain a new chapter on so called nominal properties, which mean properties, which cannot be measured nor calculated. The new edition will contain much more examples than the first one.

11 Membership 2010-2011

Attachment item 11

RW replaces *JL* as Chair until 2013.

BJH continues as Titular Member and Secretary until 2011.

RM resigns as Titular Member and is replaced by Prof. Jürgen Stohner.

AM would not be eligible for a new mandate and is replaced by *GM* as Titular Member.

MN will be Titular Member for 2010-2013.

JL replaces *MN* as Associate Member until 2011.

Prof. Hiroshi Ogino is reappointed as Associated Member until 2013.

AR continues her mandate as Associate Member until 2011.

The Representatives of Divisions I, II, IV and VI continue as before, until 2011.

Prof. Maciej Jarosz is replaced as Representative of Division V by *BH*.

Division VII will appoint by December 2009 their Representative, who will replace *MN*.

JN is replaced as Representative of Division VIII by Prof. G. Jeffery Leigh.

Representative of Division III will be Prof. Pietro R. Tundo.

Regarding the Representatives of other organizations, the only changes are in the case of IUNS who nominated Prof. I. Elmadfa³ and IUPAC who nominated *SL*. Dr Andrew Wallard of BIPM is expected to resign at some moment of the next biennium and be replaced by Dr Michael Kuehne.

12 Other business

RJ suggested the possibility of Journals obtaining from IUPAC a certification of compliance to IUPAC terminology, nomenclature and symbols.

BH commented in this context, that he has been supervising journals for Division V, and that journals published Elsevier comply, where as those of the American Chemical Society do that to a lesser extent.

AM added that the Royal Society of Chemistry recommends to their authors to use IUPAC nomenclature and terminology, but that copy editors will only interfere in the case of gross errors.

RW commented that many journals ignore quantity calculus.

The meeting approved that the possibility of journals obtaining from IUPAC a certification of compliance to IUPAC terminology, nomenclature and symbols should be considered.

³ The appointment of Prof. I. Elmadfa only took place after the adjournment of the meeting.

AR reported that Division VIII will indeed submit a project concerning Nomenclature of Flavonoids mentioned earlier in the report submitted by Division VIII (*Attachment item 7.3*).

Before the meeting was adjourned several members expressed their gratitude to JL for his activity as Chair of ICTNS. It was emphasized how much ICTNS has evolved during his mandates, namely his contribution to set up a review system for Recommendations and Technical Reports to be published in *Pure and Applied Chemistry*, which increased considerably their quality.

13 Adjournment

The meeting was adjourned at 17:00 h of Monday, 2 August 2009.

Minutes approved at ICTNS meeting, Lisbon 9 April 2010-04-18

A handwritten signature in black ink, appearing to read 'B. J. Herold', written in a cursive style.

Bernardo Jerosch Herold
Secretary ICTNS