

**International Union of Pure and Applied Chemistry
Analytical Chemistry Division**

**Minutes of the Analytical Chemistry Division Committee.
IAEA, Vienna. February 16 and 17, 2004**

Present :

K. Powell (President), R. Lobinski (Vice president) D. M. Moore (Past president), R. M. Smith (Secretary), A. Fajgelj, B. Hibbert, K. Matumoto, J-Å. Jönsson, M. Bonardi, H. Gamsjäger.

In attendance: B. Henry (IUPAC Vice president), L. Pendrill (IUPAP), P. de Beivre (WPQA), R. Dybkaer (WPQA).

Observers: (February 17th), O. R. Loesener (UNIDO), C. K. Kim, (IAEA), M. Groning (IAEA), S. Bamford, (IAEA). B. Polednik (IAEA), L. Zuilli (IAEA)

1. Opening remarks

ACD members were welcomed by the president Kip Powell and by the Vice President of IUPAC Bryan Henry. Bryan indicated that he was present to find out how the Division was working. In particular he was interested in how ACD is handling the project system, as it has been successful in developing new projects and in monitoring current projects, and had made a good transition to the new project based system. He had come to observe 'good practice'.

The ACD was then welcomed to the IAEA by Alex Fajgelj who was the host for the meeting.

2. Division President's remarks

- a. The President reported on changes in the organisation of IUPAC. There would now be a Union Advisory Committee (UAC), with one member from each NAO. The UAC would advise the Executive Committee and serve as a link between the Executive and NAOs. This would improve the flow of ideas and provide a greater opportunity for all NAOs to contribute to IUPAC Policy. Within the ACD, Gamsjäger has been nominated by the Austrian NAO and the DP has been nominated to represent New Zealand
- b. Conference funding.
 - i. Sponsorship of a conference by IUPAC is deemed to provide a seal of approval of speakers and topics and thus these details need to be included in any application.
 - ii. Although IUPAC sponsorship normally provides no financial support it is possible to obtain support for conferences in developing countries. This can now include funding of a lecturer - who may make presentations beyond the location and period of the conference. \$40K available.
 - iii. IUPAC is now providing financial support for conferences on New Directions in Chemistry. (\$25 K available)

Applications for (i) and (ii) should be initiated by the Division.

c . IUPAC has concerns about new project creation. The majority of projects still originate from former Commission members. There is a need for new blood in the project system.

- i Advisory groups were created in ACD, but were not generally successful.
- ii Overall there is a need for new projects to achieve relevance to end users (industry etc.). The Workshop in Ottawa represented a successful approach.
- iii Writing in *Teamwork* Folke Ingman noted that Division committees have a responsibility for producing project ideas, nursing them and turning them into projects. This was later quoted in *CI* by Leiv Sydnes.
- iv The ACD should pursue a "Top down approach" (of which ACD symposia are one example). Ideas from such meetings can lead to the formation of a targeted advisory group and hence to a Task Group and project. New blood can be introduced through these task groups.
- v The 24 members of the ACD should also act as a think tank – to focus on problems as a team rather than as individuals - to benefit from collective expertise. This may require a different approach to contestable funding.
- vi We must not spread ourselves too thinly. We should identify and concentrate on agreed core activities. There should also be a collegial (team) approach to each core activity. By basing work around core activities it should ensure a critical mass of expertise in each area and a continuity of activities.

d. A number of challenges (or opportunities) face the ACD:

To serve the needs of world chemistry and especially the analytical chemistry communities:

What competencies are needed to enable us to achieve this goal?

What are the greatest needs in cutting edge research and in emerging scientific communities worldwide?

How can we involve more countries and younger members in our work?

How can we improve communication - publicity and project reporting?

How can we exploit the independence of IUPAC in addressing issues?

How can we promote ACD at conferences, especially IUPAC-sponsored?

How can we ensure greater activity between meetings?

e. The DP suggested the following Objectives for the ACD in 2004-5.

Strategy

Identify Core areas and responsibilities

Concentrate resources in these areas

Use a team or collegial approach

Develop systems to ensure on-going activity in Core areas.

Projects

Review strategic direction

Generate new ideas and improve management of outcomes

Responsiveness

The ACD needs to be responsive to the needs of the analytical community.

We need to examine our ability to respond to emerging fields, developing nations, and new scientific communities; to meet the requirements for terminology and critical assessment of data; to meet existing and emerging needs in QA; to better communicate our ideas and results.

Forward planning – including Beijing GA

3. Review of current projects.

The project budget is 42,500 USD. The current accounts were circulated to ACD members. Projects having no support are usually those continuing from the old commissions.

- a. For summary of status of projects see Appendix 1.
- b. General comments
 - (i) Task Group Chairmen have been asked to update their project reports on the IUPAC web site (contact Secretariat). There is also a need to remove provisional documents from web pages when these have since been updated or the work has been completed or abandoned.
 - (ii) The helpfulness of the ICTNS with terminology reports was noted. There has been a change in emphasis. It is now important that terms are correctly expressed (in a Physical chemistry sense) and are in a format that can be directly transferred to the Gold book, including fonts and punctuation. Our member on ICTNS (W. Kutner) is in a good position to offer advice.
 - (iii) H. Gamsjäger asked the ACD to consider how to ensure that editors of journals require authors to follow IUPAC terminology.
- d. Report from SSED sub-committee: Heinz Gamsjäger:
 - (i) Three papers completed (see Appendix 1). The SSED aims to place all new evaluated data in the NIST-IUPAC solubility data base <http://srdata.nist.gov/solubility/>.
 - (ii) SSED provides frequent news reports to the Secretariat for *CI* and has improved publicity in recent years. The March/April issue of *CI* has an article on the NIST-IUPAC Solubility Database: (*CI* 2004, 26, 24) (http://www.iupac.org/publications/ci/2004/2602/ic_solubility.html)
 - (iii) As a result of the long-standing collaboration on Solubility Data Projects with Wiley & Sons, a proposal had been accepted for a book “**Medical Applications of Solubility**”, E. Königsberger and LanChi Königsberger (eds.)
 - (iv) Pirketta Scharlin had been awarded The Franzosini Award 2003 (see *CI*, 2003, 25(6), 15.
 - (v) Wolfgang Voigt (Frieberg) – to be added to commission membership
- e. Report from WPQA: Ales Fajgelj

The Codex Alimentarius Commission had accepted the “Harmonized Guidelines for Single-Laboratory Validation of Methods of Analysis (IUPAC Technical Report) (Pure Appl. Chem., 2002, 74 (5), 835-855) as guidance for method validation. This document introduces a new policy for acceptance of analytical methods and adds new approaches to the previously published IUPAC protocols on method validation by interlaboratory studies.

4. Proposals and ideas, for new Projects (current and in development):

(see Appendix 2)

a. Mass spectrometry terminology: Kermit Murray.

Reviews generally supportive but (i) some negative comments re willingness of suppliers to adopt recommendations, and (ii) noted need to expand task group to include journal editors. In response, John Langley (Div I) and Robert Boyd (editor, Rapid Communications in Mass Spectrometry) had been added to task group. Revised version received 22/1/04 requesting USD 7100. ACD noted the good dissemination plan and agreed that it was a very good proposal worthy of support

b. Chemical speciation of essential and toxic elements by Nuclear Analytical Techniques (Z. Chai)

Project introduced by Mauro Bonardi. To more accurately reflect the content and scope, the title should include "Speciation" and "environmental samples". Many of the proposed speciation methods were not "nuclear" – but the title does not reflect this. There was general concern about the techniques to be covered. The proposed membership is limited to nuclear activation analysis experts - broader membership is required. Project needs to be much more clearly defined – in scope and aim. There were also concerns about the travel budget.

Action: The DVP will assist the DP in writing to Chai to communicate the perceived problems. The DP should ask for the project to be refocused and for the proposed task group to be expanded.

c. Use of the terms pre-concentration and concentration in analytical chemistry: Elias Zagatto.

Preliminary draft of project submitted last year but no further development because of Elias' poor health. DP to approach Elias regarding formation of a new task group under new leadership.

d. Definition of terms for micro- and nano-technologies for analysis: Kip Powell.

Project originated as a result of enquiries from Harpal Minhas at RSC (Managing editor of "Lab on a Chip"). Need for harmonisation of terms. Some ACD members have expressed interest. The microTAS conference steering group is now involved. Despite several offers of help by the DP, no clear project has yet developed. The DVP will contact Gillian Greenway (Chair of RSC Editorial Board). B. Hibbert was interested to be involved and asked for correspondence

e. Comparison of the terms: preconcentration/sample preparation as used in GMO analysis and in classical analysis: Kazuko Matsumoto

Aim is to survey status of terminology – broadening to bioanalysis (and less on GMO). Project still in developmental phase – needs further scoping. Two potential task group members identified. Needs additional members – one from NIST? Approach Jim McLaren? Suggested revised title "Comparison of sample preparation terminology as used in bioanalysis and classical analysis"

f. Terminology related to analytical chemistry of metal forms in biological systems: metallomics: Ryszard Lobinski.

Use of terms related to metallomics is increasing rapidly. A Project will be developed and a draft submitted for discussion in early summer. The Officers' meeting in November will continue work on this project with a view to presentation in Beijing. (This proposal originates from the workshop in Ottawa.)

g. Evaluation of NAA parameters (Holden)

Mixed comments from referees transmitted to project proposer who subsequently withdrew proposal. President will follow up with a view to re-initiating the project.

The ensuing discussion led to a general comment to be conveyed to the Secretariat: that referees' responses should go to proposers via Division President so that they can be moderated and a constructive overview provided.

h. Nuclear Wallet Cards (Tuli).

Based on referees' comments the Officers' meeting had not supported this project. M. Bonardi challenged this position and spoke in support of NWCs. P. de Bievre commented that the isotope book has considerable value to users in the nuclear industry and he felt that evaluated data such as this is valuable and part of the publication role for IUPAC. To be valuable it would be desirable to add critically evaluated atomic weights and nuclear data for mass spectrometry. Alternative distribution methods such as a website would be more suitable and appropriate.

Action: DP to respond to Tuli, suggesting alternative distribution methods and more targeted recipients.

i. Terminology for macromolecular separations (Chang)

Divisions IV (lead) and V. Reviewed by ACD - comments generally supportive, but need for improved dissemination and budget information. External reviews somewhat contradictory but generally supportive; need for clearer definition of scope. Div. IV reviews not yet available. Will include in April funding round.

j. IUPAC - IOCD

David Moore introduced a draft project proposal from Walter Benson (IOCD). The focus is the identification of analytical chemistry limitations in laboratories in Kenya and Uganda that affect opportunities for trade. This will be followed by capacity building via Fellowships for laboratory staff to learn methods and techniques overseas, and by assistance with new equipment and methods, and by support for proficiency testing. The objective is to establish exports that can satisfy requirements for imports into EU, US and Japan.

This draft proposal appeared to require no financial support from IUPAC – a request for moral and advisory support. Suggested that the Task Group include David Moore, Walter Lund, Jan-Åke, Jönsson, and Nelson Torto, with the DP coordinating completion of the proposal with the DCE and IOCD.

k. pH measurement in complex matrices Spitzer

Extension of pH project to sea water, biochemical and environmental systems and stationary and flow electrodes.

11K requested – main budget is for meetings; more details needed in proposal – uncertainty about 6 K for ‘sample distribution’. Currently being reviewed by external reviewers and within the Division. Will include in April funding round.

l. New projects to be organised as part of SSED program

i. *Solubility of sugar*. Proposal in draft form. This project will draw on new contributors spanning a wide age group.

ii. *Solubility of gases related to iron and steel industry*. The outcome would be an evaluated database on thermodynamics of fuel and waste gases. Concern was expressed that the project not really analytical – no solubility values included. A note will be sent to Division I who may view it as a relevant project. Also possible link to environmental division. *Action*: Heinz Gamsjäger.

m. Other potential projects

Walter Lund had written to the meeting with 3 project ideas for future consideration:

Calibration in ICP spectroscopy - single or multi element? Could this include issues of traceability? How general is project 510/35/97 - "Guidelines for calibration in analytical chemistry. Part 2: multicomponent calibration". Will it discuss atomic spectrometry in any detail?

Comparison of collision cell quadrupole MS and sector MS for the elimination of spectral interference in ICP-MS. (RL to consult with WL)

Compendium of methods for elimination of interferences in ICP-MS – evaluation and comparison (RL to consult with WL)

n. Funding decisions on new projects

The ACD agreed to support the Murray project – 6.0 K (1.1 K would be requested from Physical Chemistry Division – which has one member on task group). However, if the Division I support is not forthcoming it was agreed that additional funds could be requested for dissemination if required (proposed DM; seconded AF)

5. Defining the Division objectives for 2004-5.

The ACD debated its strategy for improving performance in the future.

It was agreed to focus on a limited set of priorities:

On-going, core activities

Emerging areas

and to establish Teams of TM/AM/NR with responsibility for each area.

Core activity Teams (team coordinator in bold)

Communication **Powell**, Lobinski, Murray, Chai, Matsumoto
Quality assurance **Fajgelj**, Hibbert, Arunachalam, Danzer, Mester
Terminology – Orange book **Moore**, Smith, Kutner, Jönsson, Bonardi
Critical evaluation **Gamsjäger**, Bonardi, Balarew, Powell

Emerging issues in analytical chemistry

Bioanalytical **Lobinski**, Bonardi, Matsumoto, Murray, Chai, Batistoni
Process and nanochemistry (analytical measurements) **Hibbert**, Zagatto, Umezawa, Vlasov
Developing countries / emerging analytical communities (EAC) **Jönsson**, Lund, Moore, Torto, Arunachalam, Smith

Function and *modus operandi* of Teams.

Each coordinator was asked to develop Terms of Reference and scope of activities through discussion with his team. The functioning of the teams should be kept under review.

6. Initiation of new projects:

External ideas would be sought more actively by adding formal query points to the ACD web pages as a "mail to " link directed to President (to be discussed with Secretariat).

The President proposed an additional, new collegiate approach to projects. The ACD (or its Teams) will encourage inputs from symposia, conferences and other contacts – the intention being that these can lead to identification of issues and hence to formation of a Task group, to project proposal, and a submission for funding (as has happened from symposium in Ottawa).

7. Orange Book: report on status and future developments:

David Moore reported on recent developments.

The Orange book is on-line and searchable.
(http://www.iupac.org/publications/analytical_compendium/)

The text is being converted to XML format and some chapters have been completed. The result is an entry that is better linked to other terms and is web-compatible rather than a simple pdf file. The entries are common with the Gold book version, so there is only one version within the IUPAC database. Still some problems with equations and formulae.

The route for updating terminology will still be via formal publication in PAC. It is important to recognise the relationship to the Gold book; any terminology must be compatible and in ICTNS-

accepted format. Action was needed to identify any missing topics and areas that needed attention.

8. WPQA

Brynn Hibbert presented an introduction to the concepts and terms of '*Metrological Traceability in Chemistry*'. This covered the background, and typical examples and was presented in preparation for the mini-symposium on *Emerging issues in metrological traceability*.

Meeting continued on the afternoon of Tuesday 17th February 2004, following the **joint ACD, WPQA and IAEA workshop on "Emerging Issues in Metrological Traceability"** in the morning (<http://www.iupac.org/divisions/V/news/symposium040217.html>)

9 Discussion following workshop.

This discussion was attended by representatives from IAEA and UNIDO.

- a. An Inter-Divisional meeting should be arranged for the GA in Beijing at which the outcomes from the WPQA project on 'Metrological Traceability concept of chemical measurement results' (Project 2001-010-3-500) can be presented and the preliminary draft of the document discussed. (*Action: DP*)
- b. The ACD needs to build up its contacts and networks in developing countries, working with active agencies such as UNIDO. It was noted by Bryan Henry that (i) many of the problems are political rather than technical, and (ii) there is a need to link to other agencies: IAEA, IUPAP, BIMP, ILAC. Should other parts of IUPAC be involved (such as COCI)? (UNIDO comment: needs vary with country and with different produce which is to be exported)
- c. Other points
 - i. Noted scope for cooperation with IUPAP on terminology: this is ongoing (Pendrill and Moore).
 - ii. Need for awareness of QA issues in both developing *and* developed countries.
 - iii. Noted opportunities for collaboration with IAEA and IUPAP - such as evaluation of methods for pesticide analysis. IUPAC should concentrate on chemical aspects.
 - iv. The DP challenged ACD members to identify traceability issues in their own speciality analytical areas.
 - v. Arunachalam (by email) had asked if IUPAC could be involved in the development of reference materials in third world countries, as RMs are expensive to develop. AF will follow this up.

10 Division Publicity/Outreach

CI - The SSED is doing well for publicity. More input needed from other projects areas. Mauro Bonardi agreed to complete a report on the project on 'Terminology ...in radiopharmaceutical and radioanalytical chemistry'. Kermit Murray will be asked to write an outline of the project on Terminology in Mass Spectrometry.

It was agreed that a *CI* article was needed to give publicity to the recently completed electromigration terminology project. *Action:* Jan-Åke Jönsson,

It was agreed that an article on the mini-symposium should be prepared for *CI* and that, if possible, the mini-symposium presentations should be posted on the ACD web page.
(*Action:* Hibbert and Fajgelj)

Has the requested non-specialist article on the pH project, been written and published?
(*Action:* The DP to check with *CI*)

11. Conferences; workshops

It is important that appropriate representation is obtained from active members at IUPAC-sponsored conferences and that the proposals should come from ACD rather than from conference organisers

Representatives at conferences in 2004/2005:

Heinz Gamsjäger will represent ACD/IUPAC at ISSP-11

Euroanalysis - no one on ACD is attending. Sanz Mendel to be approached (former AM)

Trace elements in food: RL to represent ACD/IUPAC

Preliminary information:

Nuclear analytical methods in life sciences (Brazil 2005) - notified that IUPAC sponsorship to be requested.

ICAS-2006 in Moscow. A letter received from V Kolotov, inviting ACD participation. IUPAC-sponsorship will be sought. RL will organise representation of the ACD.

12. 'Teamwork'

ACD Newsletter – RL to take over as editor (designated role of Vice President). To mailing list add new ACD members, new SSED members, WPQA, and other divisions and IUPAC officers. Company associates could be added (check Dai Evans, President COCI). Next issue to appear about end of March.

13. SEANAC

Nelson Torto has been appointed as a Provisional Member of ACD to represent SEANAC. He has asked about help with curriculum development for analytical chemistry. Possible involvement of CCE (*Action:* RMS to send details to President)

14. Review of Division guidelines for new projects:

The ACD proposals developed in Tübingen (2002) were reviewed. They basically follow the standard IUPAC guidelines.

i. Division guidelines for submission of new projects

A project proposal received by the Secretariat is sent to the DP who, in consultation with key TM, checks relevance of the science to the ACD, whether the project complies with the basic IUPAC objectives, the financial feasibility, and whether the form is filled in correctly. At this stage he may suggest modifications and re-submission.

The DP recommends at least three external reviewers (either as suggested in the project proposal, or others as deemed appropriate) and conveys their names to the Secretariat who corresponds with external reviewers. Reviewer comments are returned to the DP. Concurrently the DS sends the proposal to all members of the ACD, then collates their review comments. [The need for a review form for use by the Division Committee was noted. Until the Division's own form is developed, the IUPAC web based form can be used.]

Upon the receipt of all reports the DP communicates with the Task Group chair, inviting consideration of reviewer comments and re-submission of the proposal for the next contestable funding round. In this process he will consult with the Division officers, as required.

ii. Contestable funding process

The acceptance and funding of a project is carried out in a contestable way. April 30 and October 31st were approved as the deadlines for funding decisions. The projects that are considered good but cannot be funded will be carried forward for the next evaluation, if so desired by the project leader.

The following general guidelines for project priority were defined:

- Scientific value to user groups
- Alignment with IUPAC objectives
- Dissemination plan: Visibility and usability of product
- Balance in coverage of subject area
- Composition of Task Group
- Appropriateness of budget
- Cost sharing with other funding agencies needed to leverage funds

Proposals that reach the contestable pool will be ranked by all TM, AM and NR and a score assigned. The reviewer comments and the proposal will be available to all members of the Division. Proposals with the highest cumulative score will be given priority in funding. The ultimate decision rests with the Division President.

Stepped funding may be considered where multi-phase or longer projects are involved.

iii. Division guidelines for management of projects

The Task Group leader for each project will be asked to send a progress report to the Division Vice-President semi-annually (approximately June and December). This will indicate the completion of milestones, whether any difficulties have been encountered, and state whether the project is likely still to meet its completion date.

The Division Vice-President will then forward the collated reports to TMs, AMs and NRs asking for comments, especially on opportunities for improved dissemination and for 'daughter' projects.

Expenditure is tracked by the Secretariat.

iv. Division guidelines for submission and review of completed projects

The management of a completed project depends on whether it concerns terminology or not.

Projects not involving terminology

Upon receipt of the final manuscript from the Secretariat, the DP, in consultation with key TM and AM, will identify Division reviewers and name three external reviewers. The paper is sent to the reviewers and the ICTNS by the Secretariat. Reviewer comments are returned by the Secretariat, thence to the project leader, with copy to the DP, for incorporation into a final camera-ready manuscript.

Projects concerning terminology

The manuscript is first sent to the ICTNS, via the secretariat. The revised manuscript is then sent to the DP via the Secretariat. When the manuscript has passed the Division review process (or in parallel with this process) it is sent to the Secretariat together with the names of 15 external reviewers. The Secretariat sends the project to these reviewers and to the ICTNS, and sets up the public comment process (via web and NAO's). On completion of the comment and review process the revised manuscript must be approved by the ICTNS and the DP.

15. Other matters

a. Adoption of Terminology

Task Group Chairmen should publicise terminology papers to journal editors to encourage editors to adopt the terminology and require authors of papers to conform. In some cases editors are reluctant to follow Green book guidelines and articles are permitted to contain too much topic-specific jargon .

b. Directory of Expertise

President asked to send copy to Bryan Henry

Directory considered to be an internal document so not to be posted on web (some data protection concerns and general statement might be required) – thought that utility was probably limited with rise of internet search engines – currently will continue and TMs asked to maintain and update

c. Division Home Page

Scope for enhancement was examined and as noted above it was agreed to request the Secretariat to add a "Mail to link" location to enhance communication.

d. ACD representation on Inter-Divisional and International committees.

The following representatives of the Division were noted:

Committee of Chemical Education CE (Smith)

Subcommittee on Materials Chemistry (Hibbert)

Joint Committee on Traceability in Laboratory Medicine, JCTLM (DeBièvre)

Evaluation Committee (Powell).

e Preparation for GA in Beijing, 2005

Proposed to try and include a workshop in the ACD meeting. Topic will be decided when Congress plenary lecturers are known.

A request had been received for Division posters to show at GA and continue into Congress. To be considered at Officers' meeting in November. As for the Brisbane meeting, this will be coordinated by the Secretariat to ensure a common format.

f. Review of Division operations and responsibilities

This item was referred to the ACD Officers to draft the changes that result from agreements at this meeting.

16. Date of next meeting

During the General Assembly in Beijing, 13 and 14 August 2005.

Appendix 1 Review of current projects

Number	Title	Chairman	Status	ACD Decision and Actions
550/47/89	Electrochemical detection in flowing media	Tóth	Sent to ICTNS on 29 October, 2003. Comments from Lorimer: 10/31. Awaiting final version	Contact Toth for progress
550/62/97	Piezoelectric Chemical Sensors	Lindner	Approved by ICTNS. In press: PAC Feb 2004 issue.	Complete. Can a vector article be written?
550/64/97	Non-specific sensor arrays	Vlasov	Sent to ICTNS August 2003	
1999-044-2-500	Terminology for the description of peak asymmetry in chromatography	Jönsson	Difficult to come to decision	Letters to editors - confused response. Future direction uncertain – paper more to comment on problems than make simple recommendation Two alternatives to be defined and formalized: asymmetry and tailing factor
1999-050-1-500	Chemical Speciation of Environmentally Significant Heavy metals and Inorganic Ligands	Sjöberg	One paper with ICNTS - 5 in preparation A synopsis paper has been submitted to Aust J Chem.	Potential for additional communication papers
2000-003-1-500 (000031/500/00)	Ionic Strength Corrections for Stability Constants	Pettit	Completed 2003. Now on web: www.acadsoft.co.uk Being extended and a Russian versions being compiled.	Extra budget for extensions
2000-004-1-500 (000042/500/00)	IUPAC Stability Constants Database	Pettit	Progressing to plan	Future needs to be planned as Pettits hand over to IUPAC in 2-3 years time. Needs web host (NIST ?; RSC?). A consultative group - DM, KP and FI to discuss options for future with Academic Software on behalf of Division. Report to GA.
2001-001-2-500	Dimensionality in Analytical Chemistry”.	Danzer	Received comments from ICTNS in December.	

2001-021-1-500	Analytical electromigration techniques	Jönsson	In press in PAC	Complete
2001-025-1-500	Critical Evaluation of the State of the Art of the Analysis of Light Elements in Thin Films	Friedbacher/ Dreer	Passed ICTNS – now with publisher	Completed
2001-038-2-500	Recommendations for NMR Measurement of high pK values and equilibrium constant in strongly basic solutions	Popov	Initial draft completed and reviewed	Title change approved.
2001-041-2-500	Recommendation for the Use of Countercurrent Chromatography in Analytical Chemistry	Spivakov	Draft terminology circulated - not yet to ICTNS	Recommend Kutner invited to review prior to ICTNS
2001-055-1-500	Critical evaluation of stability constants of Metal Complexes of Complexones for Biomedical and Environmental Applications	Popov	To Division autumn 2003. Temporarily lost in system. Now with ICTNS for review	
2001-063-1-500	Revision of terminology of separation science	Smith	Slow progress	
2001-072-1-500	Low activation materials for fusion technology: State and Prospects	Kolotov	No report	DVP to follow up.
2001-073-1-500	Determination of alpha-emitting radionuclides in diet	Nakahara	No report.	No response to follow-up by DP.
2001-075-1-500	Compilation of K0 and related data for NAA in the form of electronic databases	Kolotov	With ICTNS. No report.	
2002-002-2-500	Recent advances in electroanalytical techniques	Kutner	No report	DVP to follow up.
2002-003-2-500	Performance Evaluation Criteria for Preparation and Measurement of Macro and Microfabricated Ion-Selective Electrodes	Umezawa	Some delay reported.	
2002-009-2-500	Optical spectrochemical analysis using waveguide and optical fibres	Gauglitz	No report.	DVP to follow up.
2002-058-1-500	Definitions and fields of applications of the terms robust and rugged	Thorburn Burns	In progress	

2003-015-2-500	Terminology for radiochemistry	Bonardi	Recently commenced.	Question of relation to Karol 'abandoned' paper. To be followed up by DP and TG chair with secretariat and Karol.
2003-037-1-500	Optical biosensors and bioprobes	Vo Dinh	No report	

Number	Title	Chairman	Status	ACD Decision and Actions
Reports from the WPQA				
2001-009-1-500	Revision of the international harmonised protocol for the proficiency testing of (chemical) analytical laboratories	Fajgelj	Draft protocol in preparation	To be completed 2004
2001-010-3-500	Metrological traceability concept of chemical measurement results	De Bievre	Substantial progress.	
2000-033-1-500	Assessment of uncertainty associated with soil sampling in agricultural, semi-urban, urban and contaminated environments (SOILSAMP	Fajgelj	Part I complete (Terminology in soil sampling). Ongoing	

2003-004-1-500	Interdisciplinary harmonised approach to metrological traceability of chemical measurement results	De Bievre	Preparation of ICSU proposal. Completed during Vienna meeting.	
Subcommittee on Solubility and Equilibrium Data				
2001-052-1-500 (previous 581/15/89)	Solubility of volatile and gaseous fluorides in all solvents	Clever	Submitted to JPCRD- to appear in NIST-IUPAC Solubility Data Series	
2001-085-1-500 (previous 583/34/92)	Azides, Cyanides, Cyanates, and Thiocyanates of Alkali Metals, Alkaline Earth Metals and Ammonium	Hála	In print, JPCRD to appear in NIST_IUPAC Solubility Data Series	
2002-025-1-500	Solubilities of Inorganic Compounds of Actinides (except carbonates)	Hala	203 documents compiled - 70 not publicly available	
2002-031-1-500	Solubility data of compounds relevant to mobility of metals in the environment. Alkaline earth metal carbonates	Vanderdeelen	Data on 6 alkaline earth carbonates being edited	
2002-032-1-500	Solubility data of compounds relevant to mobility of metals in the environment. Metal carbonates (Mn, Fe, Co, Ni, Cu, Zn, Ag, Cd, Hg, Pb)	Gamsjäger	On-going on schedule	
2002-033-1-500	Solubility data related to oceanic salt systems Part I			
2002-034-1-500	Solubility data related to oceanic salt systems Part II			
2002-035-1-500	Solubility data of compounds relevant to human health. Solubility of substances related to urolithiasis	Königsberger	On going - evaluation essentially complete	
2002-036-1-500	Solubility data of compounds relevant to human health. Solubility of hydroxybenzoic acids and hydroxybenzoates			
2002-037-1-500	Solubility data of compounds relevant to human health. Solubility of			

	halogenated aromatic hydrocarbons			
2002-038-1-500	Solubility data of compounds relevant to human health. Antibiotics: peptides antibiotics and macrocyclic lactones,			
2002-042-1-500	Solubility data related to industrial processes Lead sulphate			
2002-043-1-500	Solubility data related to industrial processes Carbon dioxide and the lower alkanes at pressure above 2 bar methane to butane			
2002-044-1-500	Solubility data related to industrial processes. Carbon dioxide in aqueous non-electrolyte solutions	Scharlin	On -going much in final draft format	
2002-045-1-500	Solubility data related to industrial processes. Solids and liquids in supercritical carbon dioxide	Scharlin		
2002-050-1-500	Solubility data related to industrial processes; Acetonitrile: ternary and other multicomponent systems	Sazonov	Compilation complete - evaluation in progress	
2003-018-1-500	Mutual solubility of hydrocarbons with water	Maczynski	Part 1 (of 12) submitted to JPCRD Parts 2-4 in final review. Part 5 in committee 6-12 in preparation	

Other Interdivisional Projects

2003-011-3-600	A critical compendium of pesticide physical data	Wauchope	Recently commenced	
----------------	--	----------	--------------------	--

Appendix 2 Submitted and Proposed projects

Proposal Number	Project	Chairman	Status
2003-056-2	Mass spectrometry terminology	Kermit Murray.	Project well planned - supported
2003-11-17 2004-004-1	Chemical speciation study of essential and toxic elements by NAA	Z. Chai:	Lacks focus – comments back to task group. Requires revision
2002-047-1	Nuclear Wallet Cards	Tuli.	Not supported in current form - suggested wider coverage and alternative dissemination proposals
2002-049-1	Evaluation of NAA parameters	Holden	Not supported
2003-060-1	Terminology for macromolecular separations	Chang	Joint with Division IV – Review complete, except by Div. IV
2004-005-1	pH Measurement in complex matrices	Spitzer	External review. Budget changes required.
	IUPAC-IOCD	Moore	Joint with DCE. Support collaboration - no funding involved ?
	Use of the terms pre-concentration and concentration in analytical chemistry:	Elias Zagatto.	Possible new task group chair
	Definition of terms for micro- and nano-technologies for analysis:		RL to discuss with RSC
	Comparison of the terms: preconcentration/sample preparation as used in GMO analysis and in classical analysis:	Kazuko Matsumoto	In preparation
	Terminology related to analytical chemistry of metal forms in biological systems: metallomics:	Ryszard Lobinski.	In preparation