Nomenclature Committee of IUBMB (NC-IUBMB) and IUPAC-IUBMB Joint Commission on Biochemical Nomenclature (JCBN)

Report of current activities, May 1998

As stated in the committees' web page <http://www.chem.qmw.ac.uk/iubmb/nomenclature/>, 'the purpose of the committees is to coordinate recommendations to aid communication of biochemical information by encouraging scientists to use generally understood terminology'.

At our meeting in Prague on 16–18 May 1998, two large projects occupied most of our time, bioinformatics, and listing enzymes, the first two of the following topics.

1. Bioinformatics

On bioinformatics, we are already participating in the scheme that Berendson has put to ICSU. But we are more excited by the ideas Cantor had produced on forming an International Network of Protein Databases. He pointed out the need to collect experimental work on proteins over the last 50–100 years, and put it into computer-readable form, so that the knowledge could readily be accessed. This is precisely within the function of the Unions to spread scientific knowledge. He outlined how this could be approached.

The aim would be a database for each protein or type of protein. To be widely useful, standards would need to be similar for each. Laying these down would be the first phase. Berman has done some pilot work with students. This phase would need to be tried with several different proteins so as to develop a robust procedure. This would be followed by an educational phase, finding local editors for each database, and teaching them, e.g. by running workshops. Much of this could be in relatively undeveloped countries, and many of the databases could be located there. Quality control procedures would need to be set up.

Members raised many difficulties, but agreed that these could probably be overcome, and that the whole project was worthwhile. It would involve inter-Union collaboration, and would commission much work in less developed countries, where it would give opportunities to those interested in bioinformatics who have no lab.

A working party was set up, headed by Cantor, with Apweiler, Bairoch, Berman, Cammack, Cornish-Bowden, and Tipton. They could call on others; all members of the committees were willing to help. They would:

(i) lay out a preliminary set of guidelines for (a) standards for the databases, and (b) standards for the types of data to be included;
(ii) run a pilot study on a few proteins; and
(iii) try to obtain sponsorship.

Cantor would seek IUPAB participation, so that it would be inter-Union from the start.

2. Enzymes

The listing of enzymes remains a large part of the committees' work, since the accurate and unambiguous description is used in many fields and is needed in databases. Most of the points had been raised by correspondence before the meeting, and this made it possible to go through a large supplement to the list.

2.1. We approved complete descriptions for listing 151 new enzymes. Two clarifications are awaited before these can form a supplement for submission to *Eur. J. Biochem*. and publication on WWW pages. We were interested in how often authors made errors in submitting enzymes for listing, one even giving a chiral descriptor to an achiral substrate.

2.2. We modified the descriptions of 38 previously listed enzyme in major ways. These will be added to the new entries in the supplement.

2.3. A very large number of existing entries received minor modifications, and these will appear in the next general update of the list.

2.4. In addition to enzymes generally, peptidases required special treatment. The entries for about 250 enzymes were modified by adding further information about the classes they belonged to.

2.5. We agreed to that the whole list now needs revision, and that we would examine it, one subclass at a time, using a closed website for circulation within the committees.

2.6. We identified specific groups of enzymes in urgent need of updating, including GTPases, initiation and elongation factors, transporting ATPases and protein kinases. Advice is being obtained from groups of experts in each case.

2.7. Linkage is proceeding of Enzyme Nomenclature to other databases, including those for thermodynamics (GOLDBERG), enzyme properties (BRENDA), metabolic properties (KLOTHO, DRAGON, etc.), clinical chemistry (CPNU) and structural features (SWISSPROT, TREMBL, etc.).

2.8. We agreed to seek advice on formulating procedures for dealing with multifunctional enzymes.

2.9. We are working on the classification of catalytic antibodies, ribozymes, mutated and synthetic enzymes, protein kinases.

3. Metabolic pathways

Don Nicholson has generously transferred the copyrights on his metabolic charts and Inborn Errors of Metabolism to IUBMB. The nomenclature committees give high priority to presenting the charts in computer-readable form on the web, and are keen to contribute to this by working with him. They will therefore be delighted to learn that negotiations with Sigma are proceeding, and that there is the prospect that Sigma will support the web version.

4. Transport proteins

Kotyk pointed out that the coverage of transport proteins in *Enzyme Nomenclature* was poor. He was appointed to form a panel to advise on these and Apweiler, Cantor and Dixon were willing to serve on it, and M. Ashburner and Apweiler would try to raise financial support for the work.

5. Biotechnology

Schmid told the committees of the work of the IUPAC Commission on Biotechnology (COB), which is presented on <http://www.itb.uni-stuttgart.de:8080/IUPAC/homepage/iupac.html>. Several items of common interest emerged, and the committees will work with COB on them.

6 Published recommendations and web access

Nomenclature-of-Carbohydrates, published in *Pure Appl. Chem.* 1996, **68**, 1919–2008; *Adv. Carbohydr. Chem. Biochem*. 1997, **52**, 43–177; *Carbohydr. Res*. 1997, **297**, 1–90; *J. Carbohydr. Chem*. 1997, **16**, 1191–1280, is now available on the web <http://www.chem.qmw.ac.uk/iupac/2carb/>. It is being consulted about 140 times per week. Apart from organic class names <http://www.chem.qmw.ac.uk/iupac/class>, at 450 per week, it is more consulted than any other IUPAC document, though closely followed, at 130 per week, by our recommendations on Nomenclature-and-Symbolism-for-Amino-Acids-and-Peptides <http://www.chem.qmw.ac.uk/iupac/AminoAcid/> and (100 per week) the section of Enzyme-Nomenclature on peptidases <http://www.chem.qmw.ac.uk/iubmb/enzyme/>, which is about to be updated (see 2.4 above). (These figures exclude local access to the sites.) Our steroid recommendations <http://www.chem.qmw.ac.uk/iupac/steroid>, added in 1996, receives 80 visits per week.

Nomenclature-of-Glycolipids was published (*Pure Appl. Chem.* 1997, **69**, 2475–2487) and will appear in *Eur. J. Biochem*. 1998; it is now also on the web at <http://www.chem.qmw.ac.uk/iupac/misc/glylp.html>

The following recommendations of ours have been added to the website since 1 May 1997. The URL is always <http://www.chem.qmw.ac.uk/>, followed by that given below. The final column gives the approximate weekly visiting over the last few weeks:

Nucleic acid sequences	iubmb/misc/naseq.html	20
Branched nucleic acids	iubmb/misc/bran.html	5
Multienzymes	iubmb/misc/menz.html	5
Newsletter	iubmb/newsletter	30
Polypeptide conformation	iupac/misc/ppep1.html	20
Polynucleotide conformation	iupac/misc/pnuc1.html	10
Glycoproteins	iupac/misc/glycp.html	15

Total usage of IUPAC's and our recommendations on the web is 1300 per week and comes from 95 countries.

7. Other needs

We are contacting previously appointed working parties, setting up new working parties, and seeking advice from individuals, in order to assess needs and the progress being made to meet such needs.

H.B.F. Dixon
Chairman of JCBN
28 May 1998

Commission on Toxicology—VII.C.2

Minutes of Commission Meeting in Edinburgh. University of Edinburgh, 10–13 September 1998

Reports from sponsored scientific meetings and proceedings

Assessment of Carcinogenic Risk of Inorganic Substances, Luxembourg. The proceedings were published in 1997 by the Royal Society of Chemistry, Cambridge: J.H. Duffus (ed.) *Carcinogenicity of Inorganic Substances*.

1st International Conference on Trace Element Speciation, Munich. This conference was attended by Drs Duffus, Templeton and Cornelis, who was a member of the scientific committee. The excellent 3-day conference was attended by 120 participants. The proceedings will be published in the *Fresenius Journal on Analytical Chemistry*.

5th International Symposium on Metal Ions, Munich. The conference was attended by Drs Duffus, Cornelis, Heinrich-Ramm and Templeton, who was on the scientific advisory board. A book of abstracts has been published.

Conference on Chemical Education in Cairo, August 1998. Dr Duffus attended the well organized conference and gave a presentation on the Curriculum on Toxicology as part of the Clinical Chemistry Symposium. At a meeting with CTC during the conference Dr Duffus presented the status of ongoing joint activities. A short report on the conference symposium: 'Tertiary vocational training in chemistry related to health care' was prepared by Dr Howard Worth and can be obtained from the ComTox secretary (Dr Birger Heinzow, e-mail <bheinzow@lanu.landsh.de>) upon request (see page 171).

Status report on publications of the Commission and Co-operation with other Committees

As a joint project agreed upon with CTC at the General Assembly in Geneva, Dr Duffus has prepared a draft 'Toxicology: an Introduction'. The manuscript was favourably accepted by the CTC and is under circulation. ComTox members should send their comments to Dr Duffus within 3 months. The final version should be ready for publication by CTC at the next General Assembly in Berlin. This educational material should be made available as a download from the Internet and the *PowerPoint* graphics can easily be adapted to other languages. The material aims at courses of an introductory level, e.g. teaching in high schools, and might be especially useful for developing countries. Sponsorship will be sought.

The co-operation with the IPCS will continue as outlined at the meeting in Geneva with Dr Mercier, An advanced toxicology textbook for schools is in the process of publication by IPCS following a review stage involving Dr Duffus. Further co-operation with ComTox is appreciated by IPCS.

Dr Duffus will represent IUPAC (observer status) at the forthcoming IPCS Programme Advisory Meeting, Berlin, 5–8 October 1998.

The manuscript on *Sample Collection Guidelines for Trace Elements* by Dr Cornelis, published in *Pure and Applied Chemistry* has been reprinted in *Clin. Chem Acta* and *Eur. J. Clin. Chem. Clin. Biochem*.

Status report on forthcoming IUPAC ComTox sponsored or supported meetings

6th ComTox Symposium 2001, Uppsala. Dr Sunderman Jr will be contacted to obtain the latest status of the organization of the planned conference. The Commission welcomes and encourages the conference, Dr Sunderman is asked to contact Drs Hans Tjälve and Monica Nordberg to clarify the process at his earliest convenience.

3rd Congress of the Cuban Chemical Society, 1–4 December 1999, Havana. Dr Heinzow was approached by the organising committee from Cuba seeking support for the conference. It was suggested that they organize, as a course, a symposium on risk assessment and environmental chemistry , and make inquiries concerning external funding. The organising committee welcomed the proposal, and will discuss it at its next meeting in October 1998. When it is accepted, Dr Heinzow and Dr Duffus will finalize the programme for the course; several experts from Europe have expressed their support and interest in participation.

Status report of ComTox Working Parties and Projects

Biomonitoring of VOCs: Dr Heinrich-Ramm presented the final draft, which has been circulated before to the ComTox members. The paper was thoroughly revised during the Copenhagen meeting and was accepted by the Commission. After a clarification of copyright issues for the graphs, the paper will be handed on to the IUPAC review process.

Exposure assessment and decision rules in compliance testing for implementation of exposure limits. Dr Christensen explained the title change to *Rules for stating when a limiting value is exceeded*, and planned a

revision related to the experience of the ISO-guide working party referring to the draft ISO 10576-1 and a statistical paper by E. Holst. The statistician Peter Wilrich from Berlin has joined the working party. Suggestions by the ComTox members were made, outlining the scope and practical aspects in more detail in the introduction and adding a glossary and a list of symbols and abbreviations as an appendix. The manuscript will be re-circulated by the end of November and finished by the next General Assembly.

Combined effect. Dr Heinzow reported that a first draft has been prepared and that a meeting will be held at forthcoming ICCEF in September in Baden/Vienna and the status will be given thereafter by Drs Poech and Herzig.

Dr Herzig reported in the meanwhile that his proposals were positively accepted and that a nucleus working party will prepare a completely revised draft by the end of 1998. A meeting of 10 experts is planned, Dr Herzig will try to get the necessary funding; otherwise the next group meeting will not be possible before the next ICCEF conference in Finland (in 2000)

Exposure assessment using the Logbook Method. The status of the project was presented by Erik Olsen. A preliminary draft version was circulated that had been prepared by Erik Olsen, Erik Holst, Robert Herrik and Patricia Stewart. The document outlines the logbook method from a practical viewpoint and will be valuable for a realistic estimate of exposure on an individual basis.

Risk assessment, educational material. A document 'Risk assessment for occupational exposure to inorganic compounds' was prepared by Rob Herber and John Duffus; the group will convene in October in Amsterdam. Comments and additional information should be forwarded to John Duffus. It was suggested that there be an expansion on of the section on general aspects of risk assessment and that it should not focus merely on inorganic matter.

Modelling outdoor exposure. The project will be delayed by several months for unforeseen personal reasons.

Risk assessment of particulate matter. The project was delayed; the group will meet in New York in December. The issue is at present under active discussion. The document should include the more recent knowledge on cofactors of particulate toxicity such as iron content and redox cycling.

Status report on manuscripts and reports

The document: 'Toxicology: an Introduction' prepared by John Duffus, with input by Howard Worth, was circulated. Comments are invited and should be forwarded to John within the next 2 months. Regine Heinrich-Ramm will provide educational material from the German Chemical Society (GDCh).

The joint IUPAC–IFCC Technical report on *Properties and Units in the Clinical Laboratory Sciences* has been re-published: IX. Properties and Units in Trace Elements, prepared by R. Cornelis, X. Fuentes-Arderiu, I. Bruunshuus and D. Templeton. *Clin. Chim. Acta* 1997, **268,** S75–S89, and *Eur. J. Clin. Biochem.* 1997, **35**(10), 833–843.

A draft (6th edition) of *IUPAC Guidelines for Terms Related to Chemical Speciation and Fractionation of Trace Elements: Definitions, Structural Aspects and Methodological Approaches*, by D. Templeton, F. Ariese, R. Cornelis, L-G. Danielson, H. Muntau and H.P. van Leeuwen has been completed. The definitions were discussed and minor modifications suggested including a cross-check with the 'Gold Book'. The project is close to completion; comments should reach Rita Cornelis by 10 October.

New Commission members

On behalf of the Irish National Committee for Chemistry, Dr Iona Pratt was nominated as National Representative, replacing Dr William King who has served for 12 years.

Dr Pratt will be contacted by the secretary and informed about the ongoing activities and invited to join existing projects.

IUPAC reorganization

Dr Cornelis and Dr Duffus informed the Commission about the planned reorganization of IUPAC; details were also given in the last issues of *Chemistry International* (*Chem. Intl.*, 1988, **20**, no. 2, 21–24 and no. 3, 55–76). Briefly the new approach will reduce or abolish Commissions and favour limited time-funded working parties, and will introduce external evaluators. Although the ComTox members have some doubt as to whether the new process will prove to be more productive than the existing system, they look forward to the restructuring and will provide their continuing support to IUPAC as required. The issue of risk assessment and decision rules, including statistical aspects, will remain the main focus for the forthcoming activities of ComTox until restructuring occurs, and it is believed that this will also continue to be important to IUPAC after this time. ComTox is convinced that there will be a need for a continuing IUPAC concern for toxicology and Dr Duffus undertook to prepare a case for this.

Preparation for the next General Assembly in 1999

The next General Assembly will be held in Berlin. Dr Heinzow will supply Commission members with information on hotels/guest houses in Berlin for accommodation and travel, as well as public transport in Berlin.

Miscellaneous/Website activities

Dr Duffus introduced the proposal of a ComTox website, providing information about ongoing projects and existing educational material on the Internet. The site could be operated free of charge for ComTox within the Edinburgh University website on Health, Environment and Work, with a link to the IUPAC website.

A photograph of the commission members at the University of Edinburgh can be found under <http://www.med.ac.uk/hew/tox/>. In addition, a self study course entitled 'Introduction to Applied Toxicology' prepared by Dr Duffus is available from <http://www.med.ac.uk/hew/tox/>.

B. Heinzow
Secretary of Commission VII.C.2
and
J. Duffus
President of Commission VII.C.2
September 1998

Commission on Separation Methods in Analytical Chemistry—V.3

Report of the Meeting in El Escorial, Madrid, 5-6 September 1998

Future of IUPAC—Discussion of SDIC report

Implications for projects and Commission
The Secretary reported on the meeting in Idstein and on some of the implications for the Commission in the SDIC report. The clearest description was given in a recent *Chemistry International* (May 1998).

The principal effect was that the Commission would be dissolved in 2001 but as yet, the structure(s) which would replace it were not yet clear. The comments followed those concerns expressed in Idstein that continuity would be lost and that the Analytical Division Committee, even if it were greatly expanded, would have limited ability to generate projects and less capacity to execute them. The Analytical Division operated over a wider range of activities than many other Divisions. A version of advisory panels linked to Commission members was one possible alternative.

The view was expressed that it was important that the details of how continuity would be achieved were available before the Berlin General Assembly so that they could be discussed. Unless it was clear where we were going, little new activity could be initiated in Berlin and the programme of activities would rapidly start to die out. The 2001 meeting should not be the final one, but a transitional meeting to a new format.

No strong views were expressed on the project-driven formula, except that the generation of projects in a top-down sequence would be unlikely to be successful. What is needed was the interest from the members carrying out the projects. The concept of NAO organizations generating projects was also thought to be unlikely to succeed unless the project was also felt to be of importance by the Division members

A concern was expressed that by the time project proposals had passed through the acceptance procedure, the original proposers would have lost interest. Rather like many other aspects of IUPAC, the time scales are too long.

To some extent, the proposals are still at a very nebulous stage and what was needed was much more detail of how they would affect the work that is currently carried out by Commissions and what new structure would be put into place.

Action to be taken—priority projects
The Secretary proposed a list of priority areas which the Commission should concentrate on completing in the next three years (or less). In most cases these were already in place, except for the more major revision of the General Nomenclature. He would make more detailed proposals for Berlin.

Any response to Division/Secretariat
The need for more details of replacements to be discussed in Berlin rather than in 2001.

Discussion of current projects

'Mobile phases for liquid chromatography'. Part I Descriptive terminology, Project 530/9/95, Author: Siskos and co-workers

Part I. Terminology and definitions. A draft paper had been circulated—some terms such as eluent/mobile phase needed complementary definitions to the stationary phases definitions recently adopted. R.M.S. to revise and return to authors.

Part II. Discussion paper on mobile phase properties: to be developed as a critical review of mobile phase properties directly related to chromatography. It was thought that this could be developed as a critical data compilation paper on the properties of compounds commonly used as eluents in HPLC which would provide values relevant to chromatographic applications. To be proposed as a project in Berlin and a working party established

'Nomenclature for Analytical electromigration techniques', Project 530/10/95, Author: Riekkola

A paper was presented by Prof. Riekkola. A detailed discussion examined a number of the criteria and particular concern was felt about the distribution constant related to micellar methods because it was effectively the inverse of the conventional use of distribution in chromatography. k_{mc} was proposed to make the distinction.

It was felt that the paper should concentrate on capillary methods and the title of the final proposals would reflect this. (Where possible definitions and terms applicable to other electromigration methods would be used.) M.L.R. to revise, and the paper would be circulated by email for comment.

'Nomenclature for chromatography of polymers and related substances'. Author: Berek, Commission IV project.

A working party had been established but so far no paper had been produced—a joint Commission meeting would be organized in Berlin.

Field flow fractionation—Project 530/11/97, Jönnson). The authors (Beckett) had agreed to produce a shortened paper of 5–10 pages but a copy was still awaited.

Definition of dead volume in chromatography—Project 530/12/97 (Garcia-Dominguez). Draft papers have been circulated for comment, The 4th version was discussed in detail and some additional practical results on exchanges between static and bound mobile phase was reported which will lead to a further revision being produced. All the mobile phase in the column appeared to be involved.

It was suggested that the paper should include a conclusion from the comparisons, and recommend methods or a discussion of best practice where the conclusion is ambiguous.

Retention parameters in gas chromatography—Project 530/13/97, Author: Prof. Davankov. Draft paper circulated for comment. Discussed and some revisions proposed. Extension to ~ zero outlet pressure was discussed to take GC-MS method into account. V.A.D. to revise and send to R.M.S. for comments on English.

Projects in Draft stage

1 *Sample preparation methods* (Jönnson to prepare paper). Felt to be a useful topic but needs a cross Commission structure because it overlaps into different areas. To be discussed in Berlin—it might gain from a new style cross Commission working party.

2 *Updating of Chromatography Nomenclature*. Following a discussion of problems present in Nomenclature for Chromatography document related to the definitions of retention volumes in gas chromatography it was agreed to initiate a project which would include:

- Updating of GLC nomenclature (J.V.H.)
- Detector definitions (R.M.S.) coupled detectors (K.J.)
- Definition and description of Modes of chromatography
- The Secretary will try and bring together a paper for Berlin of topics needing additional work.

3 *Integrators and quantitation*. This was felt to be an important area but also to have cross-Division implications, therefore a wider working party might be needed. As above, the topic was of interest in a number of areas. It was suggested that this might be an area where a practical round robin study was needed. Difficult under present structure but might be a future IUPAC activity.

4 *Definition of calculation of asymmetry*. This was a particular area of confusion and it was felt that a agreed proposal might be useful (J.A.J. to examine)

Report on revision of Orange book (Marton)

The Chairman reported that the Orange book had now been published and details were in *Chemistry International*.

Next Meeting at General Assembly, Berlin, 7–14 August, 1999. Year 2000 meeting to be decided. Final Meeting 2001 combined General Assembly and Congress—all current Commissions will be abolished December 2001.

The meeting ends with thanks to the local organizers for their assistance with the hotel, meeting facilities and their hard work in ensuring that all the members were transported from and to Madrid airport and had information on local travel.

Priority projects for 1999–2001

1 Analytical electromigration methods—Nomenclature (M.L.R.)

2 Hold-up time in LC and GC. A fundamental definition (J.G.D., V.A.D.)

3 Up-date of General nomenclature (R.M.S.)
(a) Gas chromatography—terms related to capillary chromatography (J.H.)
(b) Mobile phase terminology—many new terms since (P.S.)
(c) Detector definitions—generally omitted—much more needed many usage terms also in other Commissions. (R.M.S.) coupled (K.J.)

4 Data collection—some broader across Division
5 Integration
Peak shapes
Asymmetry
6 Definition of sample preparation terms—general across Division (J.A.J.)

Useful projects
1 Field flow fractionation (J.A.J.) (limited application)
2 Macromolecular separations (D.B., V.A.D.)
3 Definition of modes of chromatography (broad terms)

Less urgent aspects
1 Mobile phase properties (reviewed material—not definitions)

All for completion by 2001—plan full draft paper by 1999.

R. M. Smith
Secretary of Commission V.3

Commission in Microchemical Techniques and Trace Analysis—V.2

Minutes of Commission Meeting in Geneva, 24–25 August 1997

Status of Current Projects

All of the current projects and their status were thoroughly discussed in the commission. Several papers were cancelled, given to the Division or to press and others made good progress; the updated list of projects follows (see Table p. 182).

New Projects

The following new projects were initiated, and drafts presented at the meeting:
1 *Application of Inductively Coupled Plasma Mass Spectrometry to Speciation Studies* by D.T. Heitkemper, B.S. Zimmer, K Wolnik and J.A. Caruso, draft available, comments to L.G. Danielsson by 1 October 1997.
2 *Electrophoresis of metal species* by A. Timerbaev, comments to author or Boris Spivakov by 1 December 1997.
3 *Speciation Analysis for Metal-Biomacromolecule Complexes using Hyphenated Methods* by Rychard Lobinski, Comments to author by 31 December 1997.
4 Report *Enhancement of Environmental Analytical Laboratories in Third World Countries* by Prof. Lars Reutergardh *et al.*; this report has been sent to the Division.

in *statu nascendi* without draft

Direct derivatization of Organic Compounds at Trace Level Concentrations for Fluorescence Detection and Capillary Electrophoresis by Staffan Folestad

New structure of Commission V.2

A new structure of the Commission was adopted after thorough discussion of the options at hand. The results are as follows: all the working groups will be abandoned and only groups for smaller projects will be set up (such as the authors of a report)

The following position papers shall provide the outlines for future activities; the list of participants reflects the situation of the Commission after the elections of new members:

1 Hyphenated techniques for metal specific detectors, ***W. Lund****, L.G. Danielsson, A. Timerbaev, J. Edmonds, R. Lobinski, K. Fujiwara*

2 Quality Assurance and Quality Control. ***E. Maier****, J. Hlavay, W. Cofino*

3 Surface Characterization and Materials Science. ***G. Friedbacher****, Yunsoo Kim, D. Hercules*

4 GC/MS for Organic Trace Analysis. ***W. Cofino****, S. Pergantis, R. Morabito, R. van Cleuvenbergen*

5 Fractionation and Sequential Leaching. ***J. Hlavay****, R. Morabito*

W. Cofino agreed to make a format for the preparation of the position papers (enclosed as an appendix). The papers are to be discussed at the meeting next year in Vesprem, Hungary.

The chairman thanked all leaving members for the scientific and personal contributions they have made over the past years. He expressed the hope that the contacts will not be terminated completely!

The venue of the next meeting was planned to be Vesprem, Hungary at the weekend following Euroanalysis in Basel.

M. Linscheid
Secretary of Commission V.2

Commission V.2—Current Projects

Status report—1 september 1997

Project no.	Title	Coordinator	Start	Review/ compl. date	Status (flowchart)
OTA521/9/89	Analytical Techniques for Trace Organic Compounds VII Extraction and Preconcentration of Some Environmental Trace Pollutants by Supercritical Fluid Extraction	L. Reuterg Drdh/ M. Linscheid	1990	1997	ready for the Commission in 1997
OTA 521/11/91	Analytical Techniques for Trace Organic Compounds/VII Applications of Negative Ion Chemical Ionization Mass Spectrometry	M.W. Linscheid/ D.G. Westmoreland	1992	1997	ready for the Commission in 1997
OTA521/12/95	Derivatization Reactions for Trace Analysis in HPLC	L.-G. Danielsson	1995	1998	in progress (8), draft in 1998
SAN 522/8/95	Classification of Scanning Probe Microscopies	G. Friedbacher	1995	1997	paper to commission secretary for Division
STE 523/2/89	Determination of Trace Elements Bound to Soils and Sediment Fractions	H. Muntau	1989	1997/ 1998	if not published, need complete update and approval by commission
STE523/3/89	Determination of Mercury Species in Environmental and Biological Samples	M. Morita	1989	1997/ 1998	revised draft available final draft with secretary
STE 523/4/89	Determination of Tin Species in Biological and Environmental Samples	M. Leroy	1989	1997	to the division via secretary
STE 523/6/91	Determination of Selenium Species in Biological Samples	J.S. Edmonds/ M. Morita/ M. Leroy	1991	1997	with the chairman for formal approval
STE 523/7/91	Determination of Phosphorus Species in Environmental Samples	H. Muntau/ B. Ya Spivakov	1991	1997	final version for publication before Geneva, available
STE523/8/93	Speciation Terminology	M. Morita (joint project)	1993	1997	progress made, 2nd draft in 1997
STE523/10/95	Determination of Selenium Species in Environmental Samples	C. Camara	1995	1997	J.S. Edmonds and R.Lobinski will continue
STE523/11/95	Determination of Iodine Species in Environmental and Biological Samples	J. Edmonds	1995	1997	with chairman for approval then to division (12)
	The QA projects will be merged into a Book: 'Quality management in chemical laboratories'	W.P. Cofino/ E.A. Maier	1997	1999	
QA524/2/91	Quality Improvement Programmes	E.A. Maier	1991	1996	draft available (9–10), input from commission expected
QA524/3/91	Method Development and Validation	C. Camara	1991	1997	draft available (9–10)
QA524/4/91	Quality Assurance of Environmental Sampling	J. Hlavay	1991	1997	draft available
QA524/5/91	Quality Control in Daily Practice	W.P. Cofino	1991	1996	draft available (9–10)
520/22/95	Enhancement of Environmental Laboratories in Third World Countries	W.P. Cofino/ L. Reuthergardh	1995	1997	L. Reutergardh agreed to continue with W.P. Cofino as responsible TM. Project to be terminated if no progress is made in 1999.
	New Projects				
	Speciation of Antimony	C. Camara			contact to C. Camara