IUPAC MACROMOLECULAR DIVISION (IV)

Subcommittee on Macromolecular Terminology

Minutes of the meeting held at the University of Ottawa $11^{th} - 14^{th}$ August 2003

Present: K. Ahmed (observer), G. Allegra, D. Berek, R. B. Fox, A. Fradet, J. He, M. Hess (chairman) K. Horie, J.-I. Jin, R. G. Jones (acting-secretary), J. Kahovec, T. Kitayama, P. Kratochvil, P. Kubisa, W. V. Metanomski, I. Mita, G. Moad, W. Mormann, N. Nakabayashi, C. Ober (observer), S. Penczek, B. Saunders (observer), S. Slomkowski, R. F. T. Ste pto, J. Vohlidal, E. S. Wilks, W. J. Work.

W. Kutner, D. S. Moore and R. M. Smith from Division V joined the Sub-committee for discussion of **X-97 Terminology in the Chromatography of Polymers and Related Separations**. K. Matyjaszewski attended the task group meeting of **2002-006-2-400** *Terminology for radical polymerizations with minimal termination - the so-called "living" and/or "controlled" radical polymerization*. K.-H. Hellwich (Beilstein) from the 801 Advisory Subcommittee attended to propose an Interdivisional Project on Macromolecular Stereochemistry.

1. Chairman's Opening Remarks

1.1 Welcome and Apologies

The Chairman welcomed members to the meeting and explained that the Secretary, Maximo Baron, would not be attending. In his place, Dick Jones would be Acting-Secretary until such time as he formally assumed the role in January 2004. He also thanked Maximo Baron on behalf of the Sub-Committee for his service as secretary over a number of years and expressed the sincere wish that he would be able to attend future meetings.

The Chairman reported that David Tabak had been seriously ill and on behalf of the Subcommittee expressed his hope for a speedy recovery. He also reported that Valery Shibaev and Ingrid Meisel would in future be unable to attend most meetings of the Subcommittee. He thanked both for their services.

Apologies were accepted from Marguerite Rinaudo

1.2 Approval of the Minutes from the Beijing Subcommittee Meeting

These were accepted without question or changes.

1.3 Matters arising from/after the Beijing Minutes

There were no matters arising. However, the following points were noted:

(i) New projects accepted:

2002 -006-2-400 *Terminology for radical polymerizations with minimal termination - the so-called "living" and/or "controlled" radical polymerization –* A. D. Jenkins. Assumed completion date: 2005.

2003-019-2-400 Definitions of terms relating to crystalline polymers - revision of *IUPAC Recommendations 1988* – G. Allegra. Assumed completion date: 2005

- (ii) Jaroslav Kahovec is the member of the Editorial Board of *e-Polymers* with responsibility for terminology and nomenclature. He is the person to be addressed in case of any Subcommittee-relevant announcements, publications etc. which now can appear there.
- (iii) That application should be made as soon as possible and the very latest by the end of the calendar year for project extensions requiring funding.
- (iv) That the rate for new 2-year projects or extensions to existing projects had been increased to US\$4K from US\$3K. Current projects will not automatically be upgraded.

1.4 Publications since Beijing

410/25/93 Definitions relating to Stereochemically Asymmetric Polymerizations-K. Hatada, J. Kahovec, M. Baron, K. Horie, T. Kitayama, P. Kubisa, G. P. Moss, R. F. T. Stepto, E. Wilks, P & AC 74(6) 915-922 (2002)
410/19/89 Nomenclature of Regular Single Strand Organic Polymers – J. Kahovec, R. B Fox, K. Katada, P & AC 74(10) 1921-1956 (2002)

1.5 Upcoming publications

410/24/93 *Terminology Related to Multiphase Polymer Composites and Blends* – Horie and Work is expected to be resubmitted to ICTNS by January 2004 at the latest with a view to early publication. It was noted that the original submission had been with ICTNS for a very long time before some formal recommendations for changes were forthcoming. These have been accommodated.

History of Commission IV.1 - Wilks et al., following clearance by the Division President will be incorporated in the Purple Book. It will also replace the version of the *History of Macromolecular Nomenclature and Terminology in IUPAC* presently on the Web.

1.6 Projects in final stages of preparation

It was noted that the following projects should be complete for the meeting that will take place in France in June/July 2004:

410/22/93 Guide to Polymer Terminology and Nomenclature – E. S. Wilks
1999-048-1400 Definitions of Terms Relating to Reactions of Polymers and Functional Polymers – K. Horie (expected to be published before June 2004).
2002-016-1400 Terminology for Kinetics, Thermodynamics and Mechanisms of Polymerization - Penczek (this project was formerly 410/26/95)

2002-048-1-400 *Compendium of Macromolecular Nomenclature and Terminology (The Purple Book, 2nd. Edition) –* E. S. Wilks, W. V. Metanomski

Accordingly they would remain open for discussion and report, for which time would set aside in the timetable of the present meeting (vide infra).

1.7 IUPAC developments

Developments since the meeting in Beijing that were reported at the Division Meeting held on 9/10 August. There were none of specific concern to SMT that would not arise elsewhere in the Agenda.

It was noted that the co-operation on nomenclature issues with the Organic Division members within Division VIII is very good.

It was noted with congratulation that Jaroslav Kahovec and Ted Wilks are now respectively TM and AM within Division VIII.

1.8 Timetable for the Ottawa Meeting

Following consultation with Maximo Baron, the Acting-Secretary had prior to the meeting circulated a preliminary timetable. Subject to minor modification to accommodate the required attendance of SMT members at other sessions and attendance of visitors from other divisions to SMT sessions, the timetable was finalised (see Appendix 1).

2. Projects that have been submitted for Public Review

None were reported.

3. **Projects in Preparation by Working Parties**

410/22/93 *Guide to Polymer Terminology* - Wilks

It was reported that this book of 60 sheets now comprises a preface, a content list and 8 chapters. With the exception of Chapter 1, which will be dealt with by Bob Stepto by November 2003, it is essentially complete.

ACTION: Stepto

Thereafter and following proof reading, the complete book will be copied electronically to Michael Hess, Jaroslav Kahovec, Val Metanomski, Bob Stepto. Chapters 1 and 3 will be sent to Stanislaw Penczek to check for consistency with the final draft of **2002-016-1-400**.

ACTION: Wilks

1999-048-1-400 Definitions of Terms Relating to Reactions of Polymers and Functional Polymers – Horie

It was reported that the 15th draft was prepared in October 2002 after the Beijing meeting and sent to task group members. This led to a 16th draft, which was again revised following advice from Michael Hess and Bob Stepto, before finally being submitted to public review

and ICTNS. The public review resulted in one comment relating to *chemical amplification*. As a result, the consistency of the definition has been checked against other definitions. The definition of *conducting polymer* will also be changed to be consistent with the one still under consideration in **2000-006-1-400** *Terminology of Polymers with Ionizable Groups and Polymers Containing Ions* (see below). The two task group leaders would meet to resolve these and other minor issues before leaving Ottawa.

ACTION: Horie, Kubisa

Following final checking by members of the task group, the manuscript will be sent back to ICTNS on 1st October and thereafter the final copy will be sent to the secretariat for submission to P & AC.

ACTION: Horie **Þ** Jones

2000-006-1-400 *Terminology of Polymers with Ionizable Groups and Polymers Containing Ions -* Kubisa

The task group meeting had made only limited progress. Appropriate definitions for *polyelectrolyte* and *electrically conducting polymer* were presenting considerable difficulties (see also **1999 048 -1-400** above). It was concluded that the draft would have to be rewritten after reduction to the most basic of definitions, further elaborated and clarified through the use of extensive notes. All comments made at the task group meeting had been noted and would be taken into account.

A revised draft would be distributed to sub-committee members by 20th October, with a view to sending a final document to external experts by January 2004. An application for a one-year extension would be required as the (present) nominal end of the project is 2003.

ACTION: Kubisa

2002-006-2-400 *Terminology for Radical Polymerization with Minimal Termination (so-called "living" and/or "controlled" radical polymerization) - Jenkins, Moad*

The need for a project of this nature had been argued at the Division Committee meeting, at the end of which there had been a meeting of the task group that had first addressed the need during the course of the 2002 Boston ACS meeting.

It was reported that several new terms emerged and the totality of terms requiring definition was too large to accommodate in an expansion of **2002-016-1-400** *Terminology for Kinetics, Thermodynamics and Mechanisms of Polymerization*, so a new project was required. There would be significant overlap of the two projects and **2002-006-2-400** therefore has to ensure consistency with **2002-016-1-400**, which is scheduled for earlier completion. It is understood that in addition to terms and definitions advanced by members of the task group, the project will draw heavily on input from sources external to IUPAC. Aubrey Jenkins will summarise the results of the discussions and distribute them among the members of the working party. The responses to his first draft should be sent back to him by December 2003.

ACTION: Jenkins

It was agreed that the task group, which includes non-members of SMT, would meet again during the course of the IUPAC 2004 World Polymer Congress in Paris.

2002-014-1-400 Glossary of Class Names of Polymers Based on their Chemical Structure and Molecular Architecture - Vohlidal

New entries relating to epoxy polymers will be included and some issues relating to existing entries need to be resolved by Jaroslav Kahovec, Val Metanomski and Ted Wilks. Werner Mormann will supply a list of epoxy definitions to Jiri Vohlidal and other corrections to Jiri Vohlidal by the end of September once he received the latest draft from Jiri Vohlidal.

ACTION: Mormann **Þ** Vohlidal **Þ** Kahovec, Metonomski and Wilks

The use of the word 'resin' was discussed. Its use is generally discouraged but it was agreed that the term is adequately defined in **1999-048-1 400** Definitions of Terms Relating to Reactions of Polymers and Functional Polymers and that the Glossary should be consistent with this definition.

The project would be finalised before the 2004 meeting of SMT in France. At the end of October 2003 the final draft will be distributed to the Sub-committee. Experts have already been consulted over a draft version and further external advice will be sought before going to public review.

ACTION: Vohlidal

2002-016-1-400 *Terminology for Kinetics, Thermodynamics and Mechanisms of Polymerization* – Penczek

It was agreed that the title should be changed to *Glossary of Terms Relating to the Kinetics, Thermodynamics and Mechanisms of Polymerization* and that Graeme Moad and Jean-Pierre Vairon should join the task group.

The Appendices 1 & 2 relating to definitions that already appear in the *Gold Book* or the *Glossary of Basic Terms in Polymer Science* will be changed accordingly. If definitions are identical to or a modification of existing definitions, this will be explicitly stated.

It was reported that the provisional document was published in J. Pol. Sci., Part A ; Polym Chem 2002, <u>40</u>, 2537 following which it became evident that the definition of *ceiling temperature* needs further consideration and improvement.

Two or three further entries were in need of further discussion during the Ottawa meeting but these present no substantial problems.

The next draft will be sent to the task group members and thence to the sub-committee members by the end of November 2003. One month will be allowed for responses. In February the Glossary in its final form will be sent to the Sub-committee Chairman, the Division President and then to the Secretary of SMT for submission to ICTNS.

ACTION: Penczek **Þ** Hess **Þ** Stepto **Þ**Jones

continued

The project requires a one-year funding extension.

ACTION: Penczek

2002-017-1-400 *Polymerization Processes and Polymers in Dispersed Systems -*Slomkowski

Since Beijing, this project had been sent to SMT members for comment and thereafter to division members. It was re-drafted and sent again to SMT members. In Ottawa it had undergone final revision by the task group. Consistency with other projects had also been secured, in particular with **2000-007-1-400** *Sol-gel*.

Following the accepted procedures, the final draft would now be submitted to the Chairman of SMT and the Division President for signing off, and thence to the Secretary of SMT to send to John Jost for public review and ICTNS. It was noted that e-polymer-public review should be kept in mind here as in all other cases (contact Jaroslav Kahovec).

ACTION: Slomkowski **Þ** Hess, Stepto, Kahovec and Jones

2002-048-1-400 *Compendium of Macromolecular Nomenclature and Terminology (The Purple Book, 2nd Edition)* - Wilks, Metanomski

It was noted that nomenclature recommended within PB1 is not always consistent with recommended organic nomenclature and that this anomaly must be rectified. At the very least, notes will be added to clarify exceptions.

Some chapters in terminology are to be moved forward and a new chapter will be inserted (**1999-048-1-400** *Definitions of terms relating to reactions of polymers and functional polymers*). The revised *History of IV.1* will replace that written by Norbert Bikales, as noted under 1.5 above. With the agreement of the Division President the chapter, "Classification of Linear Single-Strand Polymers (1988)", will be omitted. This agreement was granted. Jaroslav Kahovec will update the chapter on abbreviations. The appendix is also being updated.

The updated list of chapters is to be sent to Kaz Horie, Maximo Baron, Dick Jones, Graeme Moad and Stanislaw Penczek.

ACTION: Wilks and Metanomski

As noted under 1.6 above, this project is scheduled for completion prior to the meeting of SMT in France in 2004. The Chairman emphasised the need for action from all whose input will contribute to the finalisation required to meet this schedule.

ACTION: Almost all members

The Royal Society of Chemistry has agreed to publish the book.

2003-019-2-400 Definitions of terms relating to crystalline polymers - revision of IUPAC Recommendations 1988 - G Allegra.

It was agreed that the crystallization of globular (bio)polymers will not be considered under the scope of this revision since this could be worth an individual project. A list of new terms is to be collected which have to be considered for the revision. Candidate terms should be send to Giuseppe Allegra before the end of this year.

ACTION: task group members

4. Interdivisional projects

1999-051-1-800 Source Based Nomenclature for Modified Polymer Molecules - Wilks

It was reported that there was disagreement on the graphical representation of polymer modification reactions and the naming of modified polymers had led to an impasse. Accordingly, Ted Wilks felt that a fresh approach was needed and that he could no longer act as task group leader. Following receipt of written observations from Jaroslav Kahovec, he would prepare a summary of the various options that have been under consideration in order that the project could progress under a new task leader. He would remain on the task group, which is otherwise unchanged.

ACTION: Kahovec and Wilks

The Chairman expressed the gratitude of the Sub-committee for the very considerable effort that Ted Wilks had brought to this task.

It was agreed that Tatsuki Kitayama would take over as task group leader and that he would distribute a new draft to the task group by 1st April 2004 with a request for response by 31st May 2004. A revised version would be presented at the 2004 SMT meeting in France. A one-year project extension is required.

ACTION: Kitayama

2000-007-1-400 Glossary of Terms Relating to the Structure of Inorganic and Polymeric Gels and Networks, Inorganic Polymeric Materials and the processing thereof - Jones

In March 2003 a draft was sent to members of the task group and later to Graeme Moad. Comments were received from Kaz Horie, Jaroslav Kahovec and Graeme Moad. A new draft was prepared for May with specific input requested from Bob Stepto in time for Ottawa. Another draft was circulated to task group members immediately prior to the Ottawa meeting and Jiri Vohlidal, who will join the task group, has subsequently given valuable input. It was noted that definitions within this draft were inconsistent with those in **2002-017-1-400**. In consultation with Stanislaw Slomkowski, these have now been eliminated.

Input from the Division President is to be sent to Dick Jones by 1st October.

ACTION: Stepto

Dick Jones will present a revised draft to SMT members by 1st April 2004. A one-year project extension is required.

ACTION: Jones

2001-081-1-800 *Terminology and Structure-Based Nomenclature of Dendritic and Hyperbranched Polymers -* Kahovec

It was noted that Ernest Marechal had withdrawn from the task group.

A meeting had taken place within Division VIII on $\h August at which it was agreed that a draft taking account of recent comments from Maximo Baron, Alain Fradet, Bob Stepto, Ted Wilks and incorporating a terminology as well as a nomenclature glossary would be available by September 2004.

Preliminary publication, possibly in *e-Polymers*, would be sought for Spring 2004, the project being scheduled for completion in time for the 2004 SMT meeting, after which submission to ICTNS would be made.

ACTION: Kahovec

2001-082-1-800 *Terminology and Nomenclature of Macromolecules with Cyclic Structures -* Mormann

Two drafts, based on input from members of both Divisions IV and VIII, had been prepared since the meeting in Beijing and the content had been discussed in Ottawa at a joint meeting. Agreement had been reached on an approach that does not conflict with other documents and a new draft would be prepared for distribution to task group members by the end of November 2003. Responses would be required within one month thereafter. The final draft would be sent to experts in January 2004. Two months would be allowed for their responses, which would then receive the consideration of Werner Mormann and Bob Fox.

ACTION: Mormann & Fox

The project requires a one-year extension.*

2002-037-1-800 Nomenclature for Macromolecular Rotaxanes and Catenanes - Wilks

It was noted that the project was now called *Nomenclature for Macromolecular Rotaxanes* as there was no obvious interest in catenanes amongst the polymer community. The lack of interest in this topic is reflected by the correspondingly changed name of the other Division VIII project (**2002-007-1-800** *Nomenclature for Rotaxanes*) concerned with such structures, which is under the leadership of Andre Yerin. The latter would confine its concerns to non-macromolecular rotaxanes.

Ted Wilks wants to be replaced as task group leader but this is now a concern of Division VIII, albeit acting on the advice from Division IV.

ACTION: Stepto

A copy of the project as it presently stands would be sent to the Secretary of SMT (Dick Jones) for reference purposes.

ACTION: Wilks

How to continue with the macromolecular rotaxanes will be a matter of future concern. They are be considered only after the non-macromolecular rotaxanes have reached an advanced state.

^{*} It has subsequently been noted that **2001-082-1-800** is at present under budget so the Division President has authorised a continued spend. Accordingly, a formal application for extension is not required.

Interdivisional Meeting on Polymer Chromatography - Terminology in the Chromatography of Polymers and Related Separations (Separations Project) - Hess, Moore

As noted above, W. Kutner, D. S. Moore and R. M. Smith from Division V (Analytical) joined the Sub-committee for discussion of this project.

The Analytical Division is concerned to achieve consistency of the Orange Book and the Gold Book. The Orange Book has a section on size exclusion chromatography but it is slanted towards biological macromolecules. They are concerned to widen the consideration to all macromolecules and this is clearly a concern of the Macromolecular Division and in particular the SMT.

It was agreed that an interdivisional task group should be established. This would include Bob Gilbert and SMT members Dusan Berek, Michael Hess, Pavel Kratochvil, Bob Stepto, Jiri Vohlidal under the leadership of Taihyun Chang. An application would be prepared for a project under Division IV.

ACTION: Chang

Speaking on behalf of Division V, Professor Moore thanked the members of SMT for their co-operation.

5. Projects in process of approval

None were presented for discussion but as noted above, some will seek approval before the SMT meeting in France in 2004.

6. Feasibility Studies

F-6 *Thermal Properties* - Shibaev

The study has not made any real progress both for lack of terms and lack of consultation. The chairman is aware of the underlying circumstances and recommends that it remains a feasibility study for reconsideration at the SMT meeting in 2004. Meanwhile, he will progress the study.

ACTION: Hess

F-18 Ultimate Mechanical Properties of Polymers – Hess

This possible project is judged to be a logical continuation of the mechanical properties project. It remains a feasibility study but a task group consisting of Jiasong He, Michael Hess (leader), Bob Stepto and Bill Work was confirmed.

F-19 *Abbreviations* – Tabak

It was noted that David Tabak had taken over this study from Ingrid Meisel but unfortunately he was unable to come to the Ottawa-meeting.

Revision of the 1986 document is proving problematical since it is not a document in the usual sense but rather a collection of frequently used abbreviations for polymers. It was

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proposed that the study in its present form is dropped and that SMT directs authors to the recommendations contained within ISO 1043-1. It was noted that Itaru Mita is a member of the ISO project team and can advise accordingly.

SMT could play a role by devising rules under which new abbreviations were adopted. It was agreed that the feasibility study would continue under this new remit. Starting from ISO and without removing or modifying existing abbreviations the task group would attempt an update to see if any rules could be established. It was agreed that commonplace abbreviations found in the literature but not in ISO 1043-1 could be included.

A task group consisting of Jiasong He, Michael Hess Jaroslav Kahovec, Tatsuki Kitayama, Pavel Kratochvil, Ingrid Meisel, Itaru Mita, Nobuo Nakabayashi, David Tabak (leader) and Stanislaw Slomkowski was determined.

ISO 1043 would be distributed to the task group members as a pdf file by the SMT secretary.

ACTION : Jones

F-20 Multilingual Encyclopedia - Hess

Further consideration of this study was postponed until the SMT meeting in 2004. The Chairman still needs to contact other people from various parts of the world to establish that there would be teams to work on the necessary translations.

ACTON: Hess

F-21 Biodegradation and Biodegradable Macromolecules – Narayan

Ramani Narayan of Michigan State University had intended to be present for consideration of this study. He had missed his plane but had faxed a project submission form under the 'catch all' title, *Nomenclature, Terminology and Standardized Methods for Biobased and Biodegradable Polymers* as a basis for discussion. SMT considered this to be an incomplete and insufficient model for the feasibility study that was envisaged. Bob Stepto and Michael Hess had already written to Prof. Narayan about this. Prof. Narayan would be invited to attend the 2004 SMT meeting and the Chairman would contact him to progress the study. There was not sufficient time for further discussion in Ottawa but it was acknowledged that above all a list of possible terms requiring definition was needed.

A provisional task group would work with Prof. Narayan towards a proper project submission which would ensure that there would be no conflict with **F-23** *Terminology on Biomedical Polymers*.

ACTION: Michael Hess, Nobuo Nakabayashi, Werner Mormann, Stanislaw Penczek and Jiri Vohlidal

F-22 Source-Based Nomenclature on Copolymers - Kitayama, Mita

The project is to be expanded from copolymers to homopolymers with the new title, *Source-Based Nomenclature of Single Strand Organic Polymers*. Because of its nomenclature character it will probably become a Division VIII (interdivisional) project such as others before. A project application form will be submitted by the end of September and the first draft is scheduled for 31st May 2004.

ACTION: Mita and Kitayama

The task group will consist of Tatsuki Kitayama (task group leader), Itaru Mita (coordinator), Pavel Kratochvil, Bob Stepto, Stan Penczek, Alain Fradet, Ted Wilks, Jiri Vohlidal, Michael Hess, Chris Ober, Aubrey Jenkins, Jaroslav Kahovec, Val Metaonomski and Kevin Thurlow (Chairman of ISO/TC61 Plastics, SC1 Terminology). There was the possibility that there would be three more members.

F-23 Terminology on Biomedical Polymers - Nakabayashi

Bill Work reported that he and Nobuo Nakabayashi had attended the Biotechnology Subcommittee of Division III. This subcommittee has diverse interests including genomics and anything related to medical and biotechnological applications of polymers. Representatives from the Biophysical Chemistry Subcommittee of Division I had reported that they were working on surface effects in biochemical systems that also relate to the concerns of SMT. It was noted that there is intense interest in these areas of overlapping concern. Those present would all receive minutes of the joint meeting and would be required to offer input to an evolving programme that would address all aspects of biomaterials, which Nobuo Nakabayashi declared as being to all intents and purposes synonymous with biomedical mate rials. Some people prefer to refer to the latter as biocompatible materials.

The question for SMT was, does the interdivisional interest justify our feasibility study being subsumed into work that would be led by the Division III subcommittee? It was noted that from amongst the polymer community the involvement of M. Vert had already been solicited. Bob Stepto suggested that SMT recommend the involvement of S. Rimmer (University of Sheffield, UK).

Stanislaw Penczek proposed that our feasibility study confines its attention to *Terminology for Biomedical Polymeric Materials*. This was accepted and a task group consisting of Michael Hess, Kaz Horie, Stanislaw Penczek, Stanislaw Slomkowski and Bill Work coordinated by Jiri Vohlidal and Nobuo Nakabayashi was appointed to define the project and liase with the other concerned divisional subcommittees.

ACTION: Vohlidal and Nakabayashi

7. Proposed Feasibility Studies. New Proposals

Stanislaw Penczek suggested that a terminology project on *Biomacromolecules/Biopolymers* might be appropriate given the growing interest in natural and modified natural polymers. He would work with the R. Commack of the International Union of Biochemistry and Molecular Biology to establish a list of terms for presentation at the SMT meeting in France in 2004.

ACTION: Penczek

8. Proposed Rules for the Subcommittee of Macromolecular Terminology

Due to the structural reformation and the closing of the business of Commission IV.1 and the revision of the Commission rules (accepted in Guildford, 1996), the Chairman tabled updated rules for SMT which he had derived as closely as possible from the 1966 Guildford-rules.

Various modifications were recommended and implemented at the meeting. After further discussion, these were approved (see Appendix 2)

9. Any other business

9.1 Project Extensions

The following project needing extension require the completion of project application forms before the end of 2003:

2000-006-1-400	Polymers containing ionizable groups etc.	1 year	\$2K
2000-007-1-400	Glossary of terms relating to polymeric gels etc.	1 year	\$2K
2002-016-1-400	<i>Terminology for the kinetics, thermodynamics etc.</i>	1 year	\$2K
1999-051-1-800	Nomenclature for chemically modified polymers	3 years	\$6K

ACTION: Kubisa, Jones, Penczek and Kitayama

9.2 Style Consistency in Draft Documentation

Pavel Kratochvil circulated copies of the early pages of recent draft documents together with copies of the IUPAC Guidelines for Drafting IUPAC Technical Reports and Recommendations (http://www.iupac.org/reports/provisional/guidelines.html). It was agreed that in future task group leaders should adhere to these guidelines. Salient points that were accepted include the following:

- Headings should be in bold using title case.
- Reference other terms in the same document at every opportunity.
- Reference all other IUPAC documents appropriately.
- Reference <u>after</u> the definition.
- Do not use indentation.
- Use Times New Roman font at 1.5 line spacing.

In addition, the running title, *Provisional IUPAC Document*, should appear on every page when using a draft to disseminate the contents to journals or interested parties prior to publication in Pure & Applied Chemistry. It was noted that it is considered good practice to pre-publish in journals (preferably in *e-polymers*, for which guidelines, rules and a procedure are needed). Therefore, an appropriate provisional publication should be considered for all future documents considered ready for public review by the Subcommittee. If there are no existing guidelines, the Chairman of the Subcommittee should be contacted for details.

9.3 Introduction to SMT

Stanislaw Penczek requested that in the future new members of SMT were presented with papers that offered an introduction to its methods. They would be asked to read this together with representative output prior to first attendance at meetings.

The Chairman agreed to prepare and assemble the requisite materials.

10. SMT Membership

The list of members of SMT was reviewed. There were 28 members at present. The Chairman proposed that I. Meisel, L. P. Rebelo, M. Rinaudo, M. A. Schubert and V. Shibaev were redesignated as correspondents. T. Chang, W. V. Metanomski, I. Mita, N. Nakabayashi, C. Ober, J.-P. Vairon would take their place as full members. The Chairman would write formal invitations to that effect.

ACTION: Hess

The following is the definitive list of members (for full details see Appendix 4 and Appendix 5 for a list of those who are members of editorial boards):

Prof. G. Allegra Prof. M. Baron (Secretary 2001-03) Prof. T. Chang Dr. A. Fradet Prof. J. He Dr. M. Hess (Chairman) Prof. K. Horie Prof. A. Jenkins Prof. J.-I. Jin Prof. R. G. Jones (Secretary-Designate) Dr. J. Kahovec Prof. T. Kitayama Prof. P. Kratochvil Prof. P. Kubisa Dr. W. V. Metanomski Prof. I. Mita Prof. G. Moad Prof. W. Mormann Prof. N. Nakabayashi Prof. C. Ober Prof. S. Penczek Prof. I. Schopov Prof. S. Slomkowski Prof. R. F. T. Stepto Prof. D. Tabak Prof. J.-P. Vairon Prof. J. Vohlidal Dr. E. S. Wilks Dr. W. J. Work

11. Year 2004 Meeting

This will be in France between 28th June and 1st July 2004 prior to the World Polymer Congress. Although the latter will take place in Paris, Bordeaux was recommended as the venue for the SMT meeting. Information concerning the final venue will be made available as soon as possible.

12. Closing Remarks

Michael Hess expressed his thanks to the participants and all the others who have helped to make good progress during the last year, thus allowing the Ottawa meeting to be a successful one. In particular he expressed thanks and appreciation to those members of the group who will have to relinquish SMT activities for whatever reason and who will probably not be able to join future meetings. He closed the meeting wishing members a safe journey home and looked forward to seeing as many as possible next year in France.

RGJ - 12 October 2003

Appendix 1:

SMT SCHEDULE - OTTAWA

HOURS/DAYS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
09.00-09.30				F-6 Thermal
	AGENDA	2003-019	2000-016	Props.
09.30-10.00		CRYST-	KINETICS	F-18
		ALLINE P.		Ult. Mech.
	Items:			Props.
10.00-10.30				
	1.1 -1.7	2002-017	F-22	F-19
		DISPERSED	SOURCE-	Abbreviations
		SYSTEMS	BASED	
10.30-11.00	1999-051		COPOLYMERS	F-20
	Modified P.			Multilingual
				Encyc.
11.00-11.30		F-23	1999-048	F-21
		Biomedical P.	R'tns P &	Biodeg.
	Interdivisional		F'nctl. P	
11.30-12.00		2002-037	2000-006	
	X-97 Polymer	Rots. & Cats.	Ion P.	Bio.
12.00-12.30	Chromatog.	2002-017	2002-014	Revisited
		Dispersed	Glossary	Prof. Naryan
		Systems	Class Names	
12.30-14.00	Lunch	Lunch	Lunch	Lunch
14.00-14.30	2002-014	2002-048	2003-019	
	GLOSSARY	Compendium	Crystalline P.	
14.30-15.00	CLASS	22/93 Guide	<i>F-22</i>	
	NAMES		Source-based	
15.00-15.30	2000-007	2002-006	2000-016	
	SOL-GEL	Radical	Kinetics	
15.30-16.00	&	2001-082	2001-081	
	MODIFIED	Macrocyclics	Dendritic	
16.00-16.30	1999-048	2000-006	Blends	
16.30-1700	R'TNS. P &	ION P.	2000-007	
	F'NCTL. P.		Sol-gel	
17.00-17.30	22/93 GUIDE	Formatting	New Feasibility	
17.30-18.00			Studies	
Evening	Dinner			

WORKING PARTIES

W/P reports to subcommittee

Appendix 2: RULES OF THE SUBCOMMITTEE ON MACROMOLECULAR TERMINOLOGY

- The membership of the Subcommittee shall be decided by its Members and approved by the Macromolecular Division Committee.
 The Members are nominally those listed in the current IUPAC Handbook, but the membership may be changed at any time with the agreement of the current Members.
- Besides the Members, there are Consultants (former members who are still active), Correspondents (persons with only a loose connection with the Subcommittee), Observers (persons who are invited by the Chairperson of the Subcommittee and approved by the Members of the Subcommittee) and occasionally External Experts.
- 3. The Subcommittee will usually meet annually (normally associated with an IUPAC General Assembly or a World Polymer Congress). Any Official Member who fails to attend two consecutive meetings of the Subcommittee and fails to make substantial written contributions to the work of the Subcommittee over the same period of time may be asked to resign from the Subcommittee.
- 4. **The list of the Consultants, Correspondents and Observers** will be reviewed annually by the Members.
- 5. **Initiatives for macromolecular terminology and nomenclature projects or feasibility studies** may be placed before the Subcommittee by any interested party. **New projects** should normally be launched as feasibility studies approved by the Subcommittee.

The acceptance of a project or a feasibility study will normally be decided upon by the approval of the majority of the Members present at the meeting where it is proposed and will be subject to the Subcommittee Chairperson's approval.

- 6. Although in principle anybody can **submit a project proposal** directly to the IUPAC Secretariat, the agreed procedure for members of the Subcommittee is that a Project Submission Form is completed by the Task Group Chairperson of the proposed project and sent to the Subcommittee Chairperson who submits the form.
- 7. The names of the **Task Group Chairpersons** for official IUPAC recommendations and other projects are subject to the approval of the Subcommittee Chairperson. The Task Group Chairperson shall be a Member of the Subcommittee.
- 8. **Membership** of the task groups for official IUPAC recommendations and other projects are open to all Members, Consultants, Correspondents and Observers, subject to the approval of the Subcommittee Chairperson and the Task Group Chairperson. Any member of a task group is free to propose additional, external members subject to the approval of the Subcommittee Chairperson.
- 9. The **budgets** for individual projects will be made available by the Task Group Chairpersons for the use of the Subcommittee Chairperson to help attendance at the annual meetings of the Subcommittee. The use of project budgets by Task Group Chairpersons for Task Group Meetings on individual projects shall be with the agreement of the Subcommittee Chairperson.
- 10. The **authorship** of a document prepared by a task group approved by the Subcommittee is decided by the Subcommittee Chairperson in consultation with the Task Group Chairperson. Membership of a task group does not automatically mean authorship. Authorship implies substantial contributions to the document. Authors will be listed, with the Task Group Chairperson preceding the other authors. The other authors will normally be listed in English alphabetical order. In the case of a dispute, the matter will be decided by a majority vote of the subcommittee members present at the meeting at which the authorship is being decided.

- 11. Each **official IUPAC recommendation** prepared by the Subcommittee shall list the Members of the Subcommittee during the period of its preparation, as well as those consultants, correspondents and observers who, in the opinion of the Task Group Chairperson and the Subcommittee Chairman, contributed significantly to the document. In the case of a dispute, the matter will be decided by a majority vote of the Members present at the meeting at which the names to be listed are being decided. If the period of preparation of an official IUPAC recommendation started before 2002, when Commission IV.1 was in existence, the recommendation shall also list the Titular Members of the Commission during that period and list the Associate Members and others who, in the opinion of the Task Group Chairperson and the Subcommittee Chairman, contributed significantly to the recommendation. The dissemination of drafts of IUPAC recommendations requires the permission of the Chairperson of the Subcommittee and has to be identified as such by a corresponding running headline on each of its pages. For the authorship see 10.
- 12. The **publication of translations of official IUPAC recommendations** by members of the Subcommittee have to be brought to the attention of the Chairperson and the Secretary of the Subcommittee and the IUPAC Secretariat (presently Fabienne Meyers) and to the Chemical Abstracts Service (presently Val Metanomski). The translation should be identified as such and the original IUPAC cover page should precede the translation.

Adopted by the Members of the Subcommittee of Macromolecular Terminology during the 42nd IUPAC General Assembly, Ottawa, August 2003.

MH (14/07/2003)

Appendix 3: WORKING PARTIES

PROJECTS	NAMES			
SUB -COMMIT	EE PROJECTS			
410/22/93 Guide to Terminology and Nomenclature	Alemán, Baron, Fox, Hatada, Hess, Horie, Jenkins, Jin, Jones, Kahovec, Kramer, Kratochvil, Kubisa, Maréchal, Meisel, Metanomski, Penczek, Shibaev, Sirigu, Stepto, Swift, Wilks , Work.			
410/24/93 <i>Multiphase Composites & Blends</i> 1999-048-1-400 <i>Reactions of Polymers & Functional</i> <i>Polymers</i>	Fox, Hess, Horie, Work , Baron, Stepto Baron, Fox, Hess, Horie , Kahovec, Kubisa, Maréchal, Stepto, Work, Mormann, Volhidal, Kitayama, Tabak, Wilks.			
2000-006-1-400 <i>Ions & Ionizable</i>	Hess, Jones, Kubisa , Schubert, Swift, Tabak, Vohlídal			
2000-007-1-400 Inorganic & Polymeric Gels & Networks	Alemán, Chadwick (Div.II), He, Hess, Horie, Jones, Meisel, Mita, Work, Stepto, Vohlidal			
2002-014-1-400 Glossary of Class Names	Baron, Fox, Hess, Horie, Jones, Kahovec, Meisel <u>.</u> Metanomski, Mormann, Stepto, Swift, Tabak, Vohlidal , Wilks.			
2002-016-1-400 <i>Terminology for Kinetics etc.</i>	Baron, Hatada, Hess, Jenkins, Kubisa, Maréchal, Moad, Penczek , Pepper, Schulze, Sigwalt, Stepto, Vohlidal.			
2002-017-1-400 <i>Polymer in Dispersed Systems</i>	Alemán, Hess, Horie, Kubisa, Meisel, Penczek, Slomkowski , Mormann, Gilbert			
2002-006-2-400 <i>Living and Controlled Radical</i> <i>Polymerisation</i>	Jenkins , Bon, Fukuda, Gilbert,Heuts, Kratochvíl, Matyjaszewski, Moad, Monteiro, Ohno, Penczek, Quirk, Russell, Stepto, Vairon			
2003-019-2-400 Crystalline Polymers (revision)	Allegra, Bassett, Blackwell, Geil, Hess, Hikosaka, Jin, Lotz, Meille, Mormann, Stepto, Work.			
X-97 Polymer Chromatography	Baron, Berek, Chang ,Gilbert, <u>Hess</u> , Kitayama, Mori, Stepto, Vohlidal, Kratochvìl, Jandera, Dabankov.			
INTERDIVISIO	NAL PROJECTS			
1999-051-1-800 Modified Polymers	Horie, Kahovec, Kitayama , Marèchal, Vohlidal, Wilks			
2001-081-1-800 Dendritic & Hyperbranched	Baron, Kahovec<u>,</u> Metanomski, Fox, Horie, Kubisa, Mita, Stepto, Wilks.			
2001-082-1-800 <i>Cyclic Polymers</i>	Baron, Fox, Hellwich, Horie, Kahovec, Kitayama, Kubisa, Maréchal, Meisel, Mormann , Metanomski, Mita, Schultz, Stepto, Swift, Wilks.			
2002-037-1-800 <i>Rotaxanes & Catenanes</i>	Kahovec, Kubisa, Marèchal, Metanomski, Stepto, Wilks			
FEASIBILI	TY STUDIES			
F-6 Thermal Properties	Alemán, Baron, Brennan, Hess, Horie, Malkin, Shibaev			
F-18 Ultimate Mechanical Properties	Hess, Stepto, Work, He, Alemán.			
F-19 Abbreviations	Hess, He, Kahovec, Kitayama, Kratochvil, Meisel, Mita, Nakabayashi, Tabak , Work, Slomkowski			
F-20 Encyclopaedia	Hess, Tabak			
F-21 Biodegradation & Biodegradable	Hess, Mormann, Nakabayashi, Narayan , Penczek, Vohlidal			
F-22 Copolymer Source-based Nomenclature	Fradet, Hess, Kitayama, Kratochvil, Mita , Ober, Penczek, Stepto, Thurlow, Vohlidal, Wilks			
F-23 Biomedical Polymers	Nakabayashi , Hess, Horie, Slomkowski, Vohlidal, Wilks, Work			
PROPOSED FEASIBILITY STUDIES				
PFS-1 Biomolecules/Biopolymers	Penczek			

Appendix 4: SMT Members Contact Details

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Appendix 5: Editorial Board Representation

Name	Journal(s)
Kaz Horie	Macromol. Chem. Phys. Macromol. Rapid Commun. Polym. J. Reactive & Functional Polymers
Stan Penczek	J. Polym. Sci. (Chem.) Biomacromolecules (ACS) Int. Polym. J. Current Org. Chem. (Editor for Polymer section) Prog. in Polym. Sci. J. Macromol. Sci. (Chem.) & Reviews Czech Chem Comm. Polymery (Chairman of Editorial Council) e-Polymer (Co-editor in chief)
Pavel Kratochvíl	Eur. Polym. J. Polym. International Colloid Polym. Sci. Int. J. on Polym. Analysis and Chracterisation Central Eur. J. Chem.
Guisppe Allegra	Polym. J.
Tatsuki Kitayam	Polymer Polym. Bull.
Jiri Vohlidel	Collect. Czech. Chem . Commun.
Alain Fradet	Macromol. Chem. Phys. Macromol. Chem. Phys. Rapid Commun.
Jiasong He	Chinese J. Chem. Acta Composite Mat.
Jung-Il Jing	Polym. J. (Japan) Polym. Plast. Eng. Macromol. Res. (Korean Polym. Sci.)
Dick Jones	Polym. International (Polymer Chemistry Editor)
Bob Stepto	Polymer