

IUPAC POLYMER DIVISION (IV)**Subcommittee on Polymer Terminology (SPT)****Minutes of the meeting held at the Royalty Hotel, Rio de Janeiro, Brazil
11th to 14th July 2006**

Participants: Giuseppe Allegra, Taihyun Chang, Alain Fradet, Jiasong He, Michael Hess (Secretary), Phil Hodge, Jung-Il Jin (President, Division IV), Richard Jones (Chairman), Jaroslav Kahovec, Tatsuki Kitayama, Pavel Kratochvil, Valdo Meille (Observer, arrived 11.07. afternoon), Werner Mormann (arrived 12.07. afternoon), Nabuo Nakabayashi, Chris Ober (Vice-President, Division IV, arrived on the 11.07. in the afternoon), Claudio dos Santos (Observer), Robert F. T. Stepto (arrived on the 12.07. in the afternoon), David Tabak, Jean-Pierre Vairon, Michel Vert, Jiri Vohlidal.

1. CHAIRMAN'S OPENING REMARKS**1.1 Welcome and Apologies**

The Chairman welcomed members and Ailton de Souza Gomez, the Chairman of MACRO 2006 whose assistance contributed a great deal to the smooth operation of the meeting. Professor de Souza Gomez spoke a few words of welcome.

There were apologies from Maximo Baron, Giovanna Costa, Karl-Heinz Hellwich, Kazuyuki Horie, Aubrey Jenkins, Przemyslaw Kubisa, Ernest Marechal, Itaru Mita, Graeme Moad, Stanislaw Penczek, Marguerite Rinaudo, François Schué, Stanislaw Slomkowski and Bill Work. Maximo Baron had written a personal letter to the members of the SPT explaining why he feels unable to attend the meetings in the near future but that he wishes to join the group again as soon as possible. Ernest Maréchal and Val Metanomski want to retire from their membership in the SPT after many years of fruitful cooperation, and Val Metanomski in particular expressed his wish to be removed from all working parties (health reasons) on which he is still enrolled. The SPT acknowledged the contributions of the three veterans and expressed its deepest thanks for the great service delivered by them. Three of the five invited persons were not able to attend the meeting. The Chairman welcomed Valdo Meille (Italy) and Claudio dos Santos (Brazil) as Observers.

1.2 Approval of the Minutes from the Beijing Subcommittee Meeting

The minutes were accepted without change.

1.3 Matters arising from/after the Beijing Minutes

Four projects had received extensions:

1999-051-1-400 → **2006-005-1-400 *Modified Polymers***, Kitayama, 3 years, budget USD 4,500 until 06/2009

2002-006-2-400 → **2006-002-1-400 *Living and Controlled Radical Polymerization***, Jenkins and Moad, 2 years, budget USD 4,000 (4,500)

2002-014-1-400 → **2006-005-1-400 *Glossary of Class Names***, Vohlidal, budget USD 1,200 until 06/2007

2003-019-2-400 → **2006-007-1-400 *Crystalline Polymers (revision)***, Allegra, budget USD 2,000 until 09/2008

Two new project had been accepted:

2006-004-1-400 *Abbreviations (revision,)* He, budget USD 6,000 over 3 years

2006-019-2-400 *Self Assembly and Aggregation in Polymers*, Ober and Jones, budget USD 6,000 over 3 years

All other action points are for report under item 2.

1.4 IUPAC Developments

The Chairman reported that the IUPAC Secretariat is concerned by how long some projects are taking to reach completion. In future it should be assumed that only one extension (2 years) to a project will be allowed. There will have to be compelling reasons for any further extension. As a reasonable estimate, the standard duration of a project should be assumed to be 4 years with an annual budget of about USD 2,000. The Division President confirmed that there is a directive launched from the Bureau to decrease the project duration by only allowing for one project extension. The SPT stressed that because of the nature of terminology/nomenclature projects in contrast to technical reports, an average project duration of only four years might be unrealistic given the experience of the last 40 years.

The IUPAC President elect has resigned for private reasons so that on the General Assembly 2007 in Torino the next President and Vice-President of IUPAC have to be elected.

The IUPAC Handbook 2004-2005 was the last edition that will be published as hardcopy. The SPT regretted the demise of this useful reference book and asks the Division President to inform the IUPAC Secretariat accordingly.

ACTION: Jin

1.5 Publications since Beijing

There had been no publications since the General Assembly in Beijing except for the translations of "Nomenclature of regular single-strand organic polymers" (IUPAC recommendation 2002) into Japanese:

Abridged version *Kobunshi* 54, 901-910 (2005) prepared by S. Iimuro. A Japanese translation of the full version is supposed to be published as Chapter 10 of the 2nd edition of the Purple Book (Japanese) which is expected to be published in March 2007.

1.6 Upcoming publications

2000-006-1-400 *Terminology of Polymers with Ionizable Groups and Polymers Containing Ions* (Kubisa) had been submitted to ICTNS before the Beijing meeting. The reviews were carefully considered, the document was revised accordingly and resubmitted to ICTNS. SPT is waiting for approval of the document for publication.

1.7 Timetable for the Rio Meeting

Prior to the meeting the Secretary had circulated a preliminary timetable. Dynamic adjustment according to the arrival of participants and the progress of the discussions resulted in the timetable that is attached as Appendix 1.

2. PROJECTS

A number of points of general importance for the formal preparation of a document are to be stressed:

- Latin abbreviations such as *e.g.*, *i.e.*, *etc.* should be italicised until told otherwise.
- For general information see "Guidelines for Drafting IUPAC Technical Reports and Recommendations" (www.iupac.org/reports/provisional/guidelines.html)
- Correct punctuation and grammar are essential. All documents must be scanned for correctness in English usage: Aubrey Jenkins has offered already at the Beijing meeting to scan documents for incorrect grammar and punctuation.
- Bob Stepto, who is on the editorial board, will recommend that the editor of P&AC does not take it upon himself to change English usage.

ACTION: Stepto

It was noted that submission to ICTNS and public review are now, in effect, concurrent processes. WP leaders have to submit manuscripts electronically *via* Manuscript Central after approval to do so has been granted by the Chairman of SPT and the President of Division IV. ICTNS then conducts the review and on completion distributes the manuscript to the national adhering organisations for public review.

It was stressed again, that the Gold Book – although being a good source of reference in chemical terminology – neither contains ALL definitions nor are the definitions given there unchangeable “law”. The approved definitions in the Gold Book should be respected as far as possible but one should not hesitate to modify those which were picked elsewhere.

2.1 Projects in final stages of preparation

It was noted that the following projects that were expected to have been completed by the 2006 meeting of the Subcommittee were still active:

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

2002-014-1-400 *Glossary of Class Names of Polymers Based on their Chemical Structure and Molecular Architecture* – Vohlidal (extended) (**2006-005-1-400**)

2002-016-1-400 *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)* – Wilks & Metanomski

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

2.2 Projects that have been submitted for ICTNS and public review

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

The document was submitted to ICTNS in January 2006 but to date there had been no official response.*

2.3. Projects in Preparation by Working Parties

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

The Chapters 1 and 8 have to be finished (Stepito). This will happen before the end of 2006. The final version will then be compiled by Ted Wilks and distributed to Karl-Heinz Hellwich, Bob Stepto, Jaroslav Kahovec and Aubrey Jenkins. Val Metanomski – although officially retired - will also be asked if he wishes to express his views since he was involved in this project from the very beginning. The Subcommittee expressed its strong intension to have this project finalized before the end of 2007.

ACTION: Stepto, Wilks, Hellwich, Kahovec, Jenkins (Metanomski)

2002-48-1-400 *The Purple Book* – Wilks

The final version of the Purple Book had been assembled by Ted Wilks and submitted to John Jost for publication who forwarded it to ICTNS. Although this new edition of the Purple Book consists only of approved, published documents, ICTNS, through Jack Lorimer, claims that a number of parts require up-dating and modification. Since the full detail was not provided by Jack Lorimer, the Chairman of the Subcommittee will write to request that it is provided. The editors (Metanomski, Wilks, Stepto, Hess) shall then discuss the individual items and act accordingly. The revised version will then have to be proof read by the 4 editors and Jaroslav Kahovec before resubmission. Any changes with respect to existing documents will be marked in the revised version. The up-dated version of the “solutions” document (see below) shall be incorporated into later editions of the Purple Book.

ACTION: Jones, Wilks, Stepto, Hess, Kahovec, (Metanomski)

2006-04-1-400 *Abbreviations-He*

The former feasibility study F19 has become a project. This is a revision of the collection of recommended abbreviations for polymer names with the intention to give some guidelines for creating proper abbreviations for polymer names. In the first place, however, the project is supposed to provide a collection of the currently used abbreviations based on the previous document, the ISO-list etc. There are, however, several names from which abbreviations have been derived that are no longer recommended or even wrong. It was suggested to add corresponding comments or notes.

* Coincidentally, the task group leader received the response from the Chairman of ICTNS the following day.

Jaroslav Kahovec volunteered to check this. Valdo Meille, Jiri Vohlidal and Claudio dos Santos are added to the WP. An enhanced list of existing abbreviations shall be collected with corresponding comments and distributed before March 2007.

ACTION: He, Kahovec, WP

XXXX-XX-X-400 *Dispersity* – Stepto

An extended version of the terminology for $\langle M_w \rangle / \langle M_n \rangle$ (\equiv dispersity) was presented by Bob Stepto. The question arose as to whether or not this document requires the full status of a project with number and all. Bob Stepto was asked to check this with Fabienne Meyers. A note should explain the treatment of copolymers. Pavel Kratochvil observed that "dispersity" as a rather general term should cover a plurality of ways defining it. For a given text this consequently means that it should be clearly defined at its first occurrence. Bob Stepto was asked to investigate the situation and propose a solution, *e.g.*, the addition of a clarifying adjective. The document would then be submitted to ICTNS and public review.

ACTION: Stepto

2002-06-2-400 *New Radical Polymerization* - Jenkins, Moad
2006-002-1-400

The chairman presented a report from Aubrey Jenkins about the current status of this project, since most of the WP-members could not attend the meeting. The project has made significant progress since the Beijing meeting. The name "controlled" was generally accepted to be used to describe these radical polymerizations. The up-dated version of the document was discussed and the comments and proposed modifications will be forwarded to Aubrey Jenkins by the Chairman. A new draft is requested for the end of the year. Claudio dos Santos was added to the WP.

ACTION: Jones, Jenkins & Moad

2002-14-1-400 *Glossary of Class Names of Polymers Based on their Chemical Structure and Molecular Architecture* – Vohlidal
2006-005-1-400

An extension of the project for 1 year (starting from July 1st 2006) was granted. The document will be submitted to external experts.

ACTION: Vohlidal

2002-016-1-400 *Glossary of Terms Related to Kinetics, Thermodynamics and Mechanisms of Polymerization* – Penczek

The final version had been submitted electronically to the task group members. After approval by the Subcommittee and the Division President the document is now ready for submission to ICTNS and public review. Before that, however, the circular definition that has been detected in the first two definitions has to be removed.

ACTION: Vohlidal, Jones, Penczek

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

The last version of the document was sent back to Stan Slomkowski during the meeting with some minor modifications suggested by Bob Stepto. After their incorporation the document is ready for submission to ICTNS and public review. The SPT agreed and encouraged the WP leader to forward the document accordingly.

ACTION: Slomkowski

2003-19-2-400 *Definitions of Terms Relating to Crystalline Polymers* - revision of IUPAC Recommendations 1988 – Allegra

2006-007-1-400

The new draft was discussed and focused on some newly introduced terms. The next draft will be sent to the members of the WP by the end of September with responses due not later than by the end of November so that the final version can be prepared by the end of January 2007.

ACTION: Allegra, WP

2003-060-2-400 *Terminology on Separation of Macromolecules* - Chang

The draft presented was that prepared after the discussions in Beijing. For the next version the *Orange Book* will be checked for complete cross-reference. The next draft is expected by the end of this year and an **extension** of the project is advised.

ACTION: Chang

2004-043-1-400 *Terminology for Biomedical (Therapeutic) Polymers* - Vert

Contradictory concepts of the project were discussed, in particular the breadth of the project and how the former feasibility study F21 (Biodegradation and Biodegradable Macromolecules) might be incorporated in the present project. It was agreed that the project should cover a broad field in order to combine in one document all terms of these important bio-related fields – particularly where there are instances of the same terms being appropriated from different areas such as therapeutic and environmental - so that the common way of thinking for the definitions in terms of polymer science becomes visible. Correlation with the document on degradation has to be observed.

ACTION: Vert, WP

2005-05-2-400 *Definitions of Terms Relating to Individual Macromolecules, Their Assemblies, and Dilute Solutions* - revision of IUPAC Recommendations 1989 – Chang

The recent draft was discussed from which it became clear that a closer inspection of some terms is required. Some new definitions are needed (chain stiffness, correlation length, mean-field theory, percolation, swelling of individual coils). A new draft shall be

presented by the end of August with response from the WP not later than the end of November so that a revised version can be ready early in 2007.

ACTION: Chang, WP

2.4 Interdivisional projects

1999-51-1-800 *Source-Based Nomenclature for Modified Polymer Molecules – Kitayama*

2006-006-1-800

A list of 9 points of discussion had been distributed and discussed by the WP and agreement on the individual items has been achieved such that a revised version can be provided for the WP by the end of September and a new draft presented to the SPT by March 2007. It was noted that the document has made good progress since the Beijing meeting for which the WP leader is to be complimented. The project number should be changed to a Division IV project number (**ACTION: Jones**).

ACTION: Kitayama and task group members

2000-07-1-400 *Glossary of Terms Relating to the Structure of Inorganic and Polymeric Gels and Networks, Inorganic Polymeric Materials and the processing thereof – Jones*

See 2.2

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

The comments of external experts are awaited. The WP leader will inform the WP members to discuss them and provide the final version of the document by the end of the year so that the document can be sent to ICTNS and public review by March 2007.

ACTION: Kahovec

2004-46-1-800 *Structure-Based Nomenclature for Cyclic Macromolecules - Mormann*

The document had been reviewed by external experts, their comments have been considered and incorporated in the document that is now ready for submission by the WP leader to ICTNS and public review.

ACTION: Jones, Jin, Mormann

2002-37-1-800 *Nomenclature for Macromolecular Rotaxanes and Catenanes – Vohlidal*

The project is still dormant until the low molecular mass rotaxanes and catenanes project is finished. At resurrection, Phil Hodge will be added to the WP.

2003-42-1-800 *Source-based Nomenclature of ~~Linear~~ → Single Strand Polymers*
formerly *Source-based Nomenclature of Organic Homopolymers and Copolymers* – Kitayama

The title of the project was changed from *Linear Polymers* to *Single Strand Polymers*. After long discussions that occur periodically on this subject it was stated that monomer names should be used according to the presently recommended organic nomenclature whenever possible. It was also (again) stated that this is not always possible in the nomenclature systems for polymers (*e.g.*, sometimes additional adjectives or notes are required). “Deeply incorrect” although still frequently used names should be explicitly and strongly discouraged. Therefore, a list of not recommended but still allowed trivial names should be provided. Jaroslav Kahovec volunteered to deal with this task. In principle user-friendly names should remain allowed as far as possible and there should be guidelines for the limited use of trivial names within the proposed source-based nomenclature of single strand polymers/copolymers. Everybody was encouraged to submit corresponding comments and proposals to Tatsuki Kitayama not later than by the end of September so that a revised draft can be prepared by the end of this year.

ACTION: Kitayama, Kahovec, WP

2.5. Projects in process of approval

See 2.2

2.6. Feasibility Studies

F-6 *Thermal Properties* - Hess

A draft was presented and the specific problems of some terms like DSC, calorimetry or glass-transition that are used in the literature differently or where there are even wrong definitions were highlighted. STP authorised Michael Hess to launch a Project Application so that this feasibility study, initiated years ago by Valery Shibaev, might become a full project in 2007.

ACTION: Hess

F-18 *Ultimate Mechanical Properties of Polymers* – Hess

A list of terms to be defined or at least to be discussed within this project was presented. A general agreement was reached that this feasibility study should become a project, however, it was stated that there is not sufficient expertise present in the SPT where this project overlaps with polymer engineering. Bob Stepto, Phil Hodge and Chris Ober volunteered to look for experienced engineers/technologists from outside SPT who might join a WP. Michael Hess was authorised by STP to submit a Project Application Form.

ACTION: Stepto, Hodge, Ober, Hess

F-20 *Multilingual Encyclopedia – Hess*

From the point of view of Michael Hess this electronic project is feasible but in volume goes well beyond that of a normal terminology project. There are several examples in the literature, with ISO coming close to this project with an electronic version also providing definitions. A good starting point for the project might be the Glossary of Basic Terms and its approved translations. In later stages, other documents and translations can be added. Up-dating and addition of further translations (all approved and thereby published earlier) would be easy since this on-line dictionary would be based only on IUPAC documents. Back-up from the corresponding national adhering organizations will be required. Michael Hess asked for a clear statement of SPT's opinion. There was a clear vote for launching a full-scale application. It was agreed that Claudio de Santos write the application in consultation with Michael Hess and be the WP leader if it is approved.

ACTION: de Santos, Hess

F-21 *Biodegradation and Biodegradable Macromolecules – Narayan*

To be incorporated in **2004-043-1-400 Terminology for Biomedical (Therapeutic) Polymers**, see **2.3**

F-22 *Electric Field Responsive Polymers (formerly PFS-4) - Ober*

A project Application Form has been submitted and is presently being reviewed.

2.7. Proposed Feasibility Studies.

PFS-3 (2004) *Elastic Properties - Hess & Stepto*

No progress was reported.

PFS-7 *Stereochemical Notation in Polymers – Hellwich*

No progress was reported.

PFS-8 *Structural Representation in Polymers – Kahovec*

This would be a revision of Graphic Representations (Chemical Formulae) of Macromolecules (Recommendations 1994), *Pure Appl. Chem.*, **66**, 2469-2482 (1994). It should be incorporated within Division VIII's Graphical Representations document. Presently, there appears to be little interest in Division VIII to pursue such a project.

PFS-9 *Nomenclature in Inorganic Polymers - Jones*

This would be an IV/VIII interdivisional project. The idea would be pursued further at the Division VIII meeting to be held in Prague in early September.

PFS-10 *Terminology (and Nomenclature) of Polymers in Nanotechnology*

Chris Ober was authorized by SPT to draft a project submission for consideration at the Turino-meeting 2007.

ACTION: Jones, Kahovec

IDEAS

Terminology of:

- **Biomimetic Polymers**
- **Polymeric Materials arising from Biomass**

3. ANY OTHER BUSINESS

3.1 Project Extensions

2004-043-1-400 *Terminology for Biomedical (Therapeutic) Polymers* – Vert
Apply for extension (3 years) fall 2006

2003-042-1-800 *Source-Based Nomenclature for Single Strand Polymers* – Kitayama
Apply for extension (3 years) fall 2006

3.2 SPT Membership

Valdo Meille (Milano, Italy) and Claudio dos Santos (Uro Preto, Brazil) were welcome as new members of the Subcommittee for Polymer Terminology.

For full details including those of provisional members see Appendix 3:

Prof. G. Allegra	Prof. I. Mita
Prof. T. Chang	Prof. Valdo Meille
Prof. C. dos Santos	Dr. G. Moad
Dr. A. Fradet	Prof. W. Mormann
Prof. J. He	Prof. N. Nakabayashi
Dr. M. Hess (Secretary)	Prof. C. Ober
Dr. K.-H. Hellwich	Prof. S. Penczek
Prof. P. Hodge	Prof. F. Schuè
Prof. K. Horie	Prof. S. Slomkowski
Prof. A. Jenkins	Prof. R. F. T. Stepto
Prof. J.-I. Jin	Prof. D. Tabak
Prof. R. G. Jones (Chairman)	Prof. J.-P. Vairon
Dr. J. Kahovec	Prof. J. Vohlidal
Prof. T. Kitayama	Dr. W. J. Work
Prof. P. Kratochvil	
Prof. P. Kubisa	

Consultants

Dr. E. Wilks
Dr. W. V. Metanomski
Prof. E. Marechal
Prof. K. Hatada
Dr. I. Meisel
Prof. V. Shibaev

3.3. Closing Remarks

Dick Jones expressed his thanks to the participants and all others who have helped to make good progress during the last year, thus allowing the Rio meeting to be a success. He closed wishing members an enjoyable World Polymer Congress and a safe journey home or on holiday, and looked forward to seeing as many as possible next year in Torino.

4. 2007 MEETING

The next meeting will take place during the General Assembly which is scheduled for 4th to 12th August 2007.

MH-12 September 2006

Appendix 1: SPT SCHEDULE - RIO 2006

	Tuesday, 11.07.	Wednesday, 12.07.	Thursday, 13.07.	Friday, 14.07.
09:00-10:00	Welcome and Agenda Items 1 to 2.3	Biomedical (Therapeutic) Polymers	Dispersity	Cyclics Ionic and Ionizable Rotaxanes & Catenanes Dispersed Systems
10:00-11:00			Modified Polymers	Feasibility Studies Thermal Properties Ultimate Mechanical Properties Multi-Lingual Dictionary
11:00-12:00			Source-Based Nomenclature Linear	Proposed Feasibility Studies <i>Elastic Properties</i> <i>Stereochemical Notation in Polymers</i> <i>Structural Representation in Polymers</i>
				Closing Remarks
12:00-14:00	LUNCH	LUNCH	LUNCH	LUNCH
14:00-15:00	Inorganic and Gels	Crystalline Polymers	Controlled Polymerization	
15:00-16:00	Self-Assembly		Separations Abbreviations	
16:00-17:00	Solution Properties		Purple Book Guide	

Interdivisional project

Appendix 2: WORKING PARTIES
Projects and Working Parties by August 2006

PROJECTS	NAMES of Active Members
SUB-COMMITTEE PROJECTS	
410/22/93 <i>Guide to Terminology and Nomenclature</i>	Wilks , Baron, Fox, Hatada, Hess, Horie, Jenkins, Jin, Jones, Kahovec, Kratochvil, Kubisa, Meisel, Penczek, Stepto, Work.
2002-006-2-400 <i>Living and Controlled Radical Polymerization</i> 2006-002-1-400	Jenkins , Fukuda, Gilbert, Hess, Jones, Kratochvil, Matyjaszewski, Moad, Penczek, Quirk (correspondent), Russell (correspondent), Stepto, Vairon, Vohlidal
2002-014-1-400 <i>Glossary of Class Names</i> 2006-005-1-400	Vohlidal , Hess, Horie, Jones, Kahovec, Kratochvil, Mormann, Stepto, Tabak, Wilks.
2002-016-1-400 <i>Terminology for Kinetics etc.</i>	Penczek , Baron, Hatada, Hess, Jenkins, Kubisa, Maréchal, Moad, Pepper, Schulze, Sigwalt, Stepto, Vohlidal, Kratochvil, Vairon.
2002-017-1-400 <i>Polymer in Dispersed Systems</i>	Slomkowski , Stepto, Hess, Horie, Kubisa, Meisel, Penczek, Mormann, Gilbert
2002-048-1-400 <i>Compendium of Macromolecular Terminology & Nomenclature- PB2</i>	Wilks , Hess, Metanomski, Stepto,
(2003-019-2-400) <i>Crystalline Polymers (revision)</i> 2006-007-1-400	Allegra , Bassett, Blackwell, Geil, He, Hess, Jin, Meille, Mormann, Ober, Stepto, Vohlidal.
2003-060-2-400 <i>Separation of Macromolecules</i>	Chang , Berek, Davankov, Gilbert, Hess, Jandera, Kratochvil, Moad, Pasch, Stepto, Tabak, Vohlidal
2004-043-1-400 <i>Biomedical(Therapeutic) Polymers</i>	Vert , Domb, Hellwich, Hess, Horie, Kubisa, Nakabayashi, Penczek, Rinaudo, Schué, Work.
2005-005-2-400 <i>Macromolecules, Assemblies and Dilute Solutions</i>	Chang , Hess, Horie, Kratochvil, Stepto, Vohlidal.
2006-004-1-400 <i>Abbreviations</i>	He , Mita , Hellwich, Hess, Horie, Kahovec, Kitayama, Kratochvil, Meisel, Tabak, Nakabayashi, Slomkowski, Vert, Work,
2006-043-2-400 <i>Self-Assembly and Aggregation in Polymers</i>	Ober & Jones , Chang, Hess, Hodge, Kratochvil, Moad, Vert.
INTERDIVISIONAL PROJECTS	
2006-006-1-800 <i>Modified Polymers</i>	Kitayama , Fox, Fradet, Hodge, Horie, Jones, Kahovec, Kubisa, Ober, Vohlidal, Vert, Wilks
2001-081-1-800 <i>Dendritic & Hyperbranched</i>	Kahovec , Baron, Fox, Horie, Kubisa, Mita, Stepto.
2001-082-1-800 <i>Cyclic Polymers</i>	Mormann , Baron, Fox, Hellwich, Horie, Kahovec, Kitayama, Kubisa, Maréchal, Meisel, Metanomski, Mita, Schultz, Stepto, Swift, Wilks.
2002-037-1-800 <i>Rotaxanes & Catenanes</i>	Vohlidal , Fradet, Hellwich, Kahovec, Kubisa, Mormann, Stepto, Wilks
2003-042-1-800 <i>Source-based Nomenclature of Linear Polymers</i>	Kitayama , Fradet, Haddleton (consultant), Hess, Hodge, Horie, Jenkins, Kahovec, Kratochvil, Mita, Mormann, Ober, Penczek, Stepto, Thurlow, Vohlidal, Wilks
FEASIBILITY STUDIES	
F-6 <i>Thermal Properties</i> (to be submitted)	Hess , He, Horie, Moad, Stepto, Vert, Vohlidal.
F-18 <i>Ultimate Mechanical Properties</i> (to be submitted)	Hess , He, Stepto, Work.
F-20 <i>Multilingual Encyclopaedia</i> (to be submitted)	dos Santos & Hess , Baron, Camino (Polytechnic of Turin), Chang, Fradet, He, Kitayama, Kubisa, Rinaudo
F-22 <i>Electric Field Responsive Polymers</i> (currently being reviewed)	Ober , Jin, Jones, Hess, Horie, Schué, Stejskal, Vohlidal
PROPOSED FEASIBILITY STUDIES	
PFS-3 <i>Elastic Properties of Polymers</i>	Hess & Stepto

Appendix 3: Contact Detail

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