

Subcommittee on Polymer Terminology IUPAC Polymer Division (IV)

Minutes of the meeting held in São Paulo, Brazil 10th July to 13th July 2017

Present

In person

Prof. Volker Abetz (*VA*, Germany)
Dr. Ray Boucher (*RB*, UK)
Prof. Melissa Chan (*MC*, Malaysia)
Mr. Jiazhong Chen (*JC*, USA)
Prof. Chris Fellows (*CF*, New Zealand)
Dr. Francesca Giuntini (*FG*, UK)
Prof. Carlos F. O. Graeff (*CG*, Brazil)
Prof. Jiasong He (*JH*, China)
Dr. Karl-Heinz Hellwich (*KHH*, Germany)
Prof. Michael Hess (*MH*, Germany)
Dr. Roger C. Hiorns (*RCH*, France - **Chair**)
Dr. Mario Malinconico (*MM*, Italy)
Dr. John Matson (*JBM*, USA)
Dr. Jan Merna (*JM*, Czech Republic)
Dr. Graeme Moad (*GM*, Australia)
Prof. Werner Mormann (*WM*, Germany)
Prof. Tamaki Nakano (*TN*, Japan)
Prof. Christopher K. Ober (*CKO*, USA)
Dr. Marloes Peeters (*MP*, UK)
Prof. Olga Philippova (*OP*, Russia)
Prof. Guido Raos (*GR*, Italy)

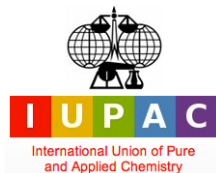
Prof. Greg Russell (*GTR*, New Zealand)
Prof. Duyeol Ryu (*DR*, South Korea)
Prof. Cláudio dos Santos (*CdS*, Brazil)
Prof. Natalie Stingelin (*NS*, UK)
Dr. Adriana Sturcova (*AS*, Czech Republic)
Prof. Patrick Theato (*PT*, Germany)
Prof. Paul D. Topham (*PDT*, UK - **Secretary**)
Prof. Michel Vert (*MV*, France)
Prof. Jiri Vohlidal (*JV*, Czech Republic)
Prof. Michael Walter (*MW*, USA)
Prof. Myung-Han Yoon (*MHY*, South Korea)

Via Skype

Dr. Paola Carbone (*PC*, UK)
Prof. Jean-Luc Gardette (*LG*, France)
Dr. Daniel Keddie (*DK*, UK)
Prof. Christine Luscombe (*CKL*, USA)
Prof. Stefano (Valdo) Meille (*SVM*, Italy)

Appendices

- Appendix 1: Meeting Agenda
- Appendix 2: Rules of the Subcommittee on Polymer Terminology
- Appendix 3: List of Projects and Publications
- Appendix 4: Timetable of Task Group Discussions
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1. OPENING SESSION

1.0 Welcome and apologies

RCH welcomed Members to the Subcommittee on Polymer Terminology (SPT) meeting and expressed thanks to all for making the great effort to attend, outlining the importance of IUPAC and SPT. Warm thanks were expressed to the local organizers, *CG*, *CdS* and *PDT* for facilitating our stay and for organizing the social events. *RCH* explained that the importance of the week was about progressing the projects and that the role of the Task Group Leaders (TGL) is to drive their projects. *RCH* reminded SPT members to invite people to SPT as Observers (in the first instance), highlighting that we want the best in SPT. To achieve this, it is especially important to get good gender balance and reach across different countries.

WM, *KHH* and *JV* expressed kind words about Prof. Bob Fox who sadly departed in December of 2016. All respected a moment's silence for him.

RCH welcomed the Observers to the meeting, namely *VA*, *FG*, *JBM*, *JM*, *MM*, *MP*, *AS*.

Apologies were received from Prof. Taihyun Chang (*TC*, Korea), Prof. Alain Fradet (*AF*, France), Prof. Philip Hodge (*PH*, UK), Prof. Voravee Hoven (*VH*, Thailand), Prof. Richard Jones (*RGJ*, UK), Prof. Stan Slomkowski (*SS*, Poland).

1.1 Approval of Minutes from the Istanbul SPT meeting of 2016

The minutes were approved.

1.2 Matters arising from the 2016 Minutes

RCH mentioned the issue surrounding the election and duration of the term for Chair of SPT, focussing on the wording in Point 17 in Appendix 2. The point was amended during the meeting and was approved.

1.3 Project Statuses and Objectives at the start of the week

2010-007-1-400 *Terminology for Chain Polymerization* – Moad

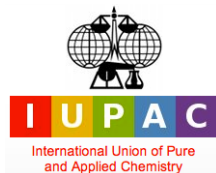
GM explained that the task group have a document that is close to its final form. This week, focus will be placed on resolving final issues on the document (e.g. named reactions, lack of detail in non-radical polymerization areas, etc). *GM* needs to speak to *KHH* about some of these issues. The project could be closed off this week if these complications can be sort out.

2009-047-1-400 *Stereochemical Notations* – Hellwich & Moad

GM stated that it has been decided, after discussions with *RCH*, to abandon a full document and complete the project by submitting a brief note instead as an interim step to a much larger project.

2015-013-1-400 (CHAIN) *Brief Chain: Brief Guide to Polymerization Terminology* – Luscombe/Moad

GM stated that *CKL* is leading on this project and will be chairing a meeting (via Skype) this week. Parts of this project document depend on *GM*'s Chain Polymerization project.



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2014-033-1-400 (CAR) *Polymeric Carriers: Nomenclature for Polymeric Carriers Bearing Chemical Entities with Specific Activities and Names* – Vert

MV stated that the latest draft is close to completion and this week the aim is to get the final approval from the Task Group for submission to SPT.

2014-034-2-400 (LACTIC) *Nomenclature and Terminology Relevant to Lactic Acid-based Polymers: Synthesis, Structure, Properties, Applications and Degradation* – Vert

MV stated that the latest draft is close to completion, but with some comments to deal with first. The aim this week is to address the comments and then get the final approval from the Task Group for submission to SPT.

2008-015-1-400 *Preferred Names for Polymers* – Mormann

WM stated that he received the Galley Proofs for this article this morning and within the next month it will go to print. *WM* was congratulated for the excellent work done in finishing this project off.

2015-014-1-400 (SEMIS) *Guide (and Brief Guide) to Polymer Semiconductors* – Walter

MW stated that this project will produce a new recommendations document as well as a Brief Guide. The Task Group has a list of terms that he has been through carefully; half of the definitions are done and some are already available. *MW* talked to consultants for the project and there needs to be more uniformity about whether the project is going to cover monomers or not. This week *MW* will show the group how he is categorizing the first document into different themes, as it is currently a long list of terms.

2006-028-1-400 *Electric Field Responsive Polymers* – Vohlidal

JV stated that the Task Group are relatively content with the document, but there remains a few issues to sort out. *JV* explained that this will be the focus of this week. *JV* will also be discussing overlap and distinction with *MW*'s project on semi-conductors (2015-014-1-400).

2010-036-1-400 *Keywords* - Slomkowski

GTR spoke on *SS*'s behalf, stating that the final document has been circulated to SPT for final approval. Some people have already responded and this project should be finished very soon.

2015-049-1-400 *Brief Guide to the Characterisation of Polymers* - Topham

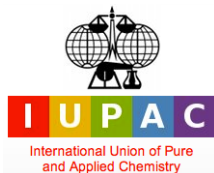
PDT stated that the aims for this week were to kick-off the project, find existing IUPAC documents and begin to structure the paper/terms.

2013-001-1-800 *Structure-based Nomenclature for Regular Linear Star, Comb and Brush Polymers* - Chen

JC stated that the project is close to being finished. The document has been around to SPT, DIV IV and DIV VIII. Their comments have been adopted and the target for this week is to get the document finalized.

201x-xxx-1-400 (Project Committee) *Development of a Multilingual Glossary of Polymer Terminology with New Languages* - dos Santos

CdS explained that the website has now been restored after having been hacked. *CdS* stated that he will be showing the task group the next steps for submission of the project proposal.



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2012-048-2-400 *A Brief Guide to Polymer Terminology* - Hiorns

RCH explained that he will be going through the document with the task group, highlighting items that can be removed and identifying things that may have been missed out.

2014-014-1-400 (MODSIM) Terminology for modeling and simulation of polymers – Meille
GR spoke on behalf of *SVM*. *GR* explained that the project was approved three years ago and now (since Istanbul), the project is progressing. A first draft of the document will be ready by the end of July. Approximately half of the terms remain to be defined.

1.4 Invited Lectures and Discussion

1.4.1 Nomenclature, *KHH*

RCH introduced *KHH*. During the introduction, *RCH* discussed the importance of our cooperation with Division VIII and of the role of nomenclature in many SPT projects. *KHH* gave a well-received lecture on chemical nomenclature.

ACTION: *PDT* to send slides to SPT members and observers.

1.4.2 International Chemical Identifier (InChI), *RB*

RB gave a well-received lecture on InChI and its importance going forwards in the digital age. SPT Members who were interested in getting involved in a pilot InChI study were: *JC*, *MH*, *GM*, *GR*, *CdS*, *NS*, *PT*, *PDT*, *JV* and *MW*.

RB will bring InChI into the Brief Guide projects of *RCH* (Brief Terms) and *MW* (Semis).

ACTION: *PDT* to send slides to SPT members and observers.

ACTION: *RB* to contact SPT Members who are interested in the InChI pilot study.

ACTION: *RB* to discuss InChI involvement in the projects of *RCH* and *MW*.

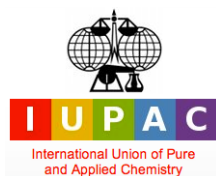
1.5 Short talks to SPT

Stuart Chalk (CPCDS) gave a short talk on the Gold Book to SPT, emphasising that the drive is to get every term in the Gold Book online- <https://iupac.org/project/2016-046-1-024>. *CdS* will be the contact for SPT on this.

2.0 Project Statuses and Actions following work in SPT

2015-014-1-400 (SEMIS) *Guide (and Brief Guide) to Polymer Semiconductors* – Walter
MW gave a report on progress made during the meeting. The Task Group first differentiated this project from *JV*'s on 'Field-Effect'; it was decided that *MW*'s project will focus on semi-conducting polymers only. The group worked on the overarching structure of the recommendations document, breaking it down into sections: Common Terms, Photovoltaics, Light-Emitting Diodes, Transistors, Materials and Device Fabrication. The group started to go through terms and place them into these categories.

ACTION: *MW* to split up the terms amongst the members, who will then find which terms are covered/addressed in other projects.



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2014-033-1-400 (LACTIC) *Nomenclature and terminology relevant to lactic acid-based polymers: synthesis, structure, properties, applications and degradation* - Vert

MV explained that a third Task Group session was added to the schedule to finish things off, but the numbers able to attend the third meeting were limited. The group worked hard and are now happy with the final document. *MV* will submit it to *RCH* (and then SPT and Division VIII) this week.

ACTION: *MV* to send final document to *RCH*.

2009-047-1-400 *Definitions and notations relating to stereochemical aspects in polymer science* - Moad

GM stated that the full task group met, went through the terms and are now close to being satisfied with the document. A small number of items were added and the document should be ready soon after *KHH* has been through it.

ACTION: *KHH* to go through the document and send it back to *GM* for final checks and then circulation to the Task group.

2015-013-1-400 *Brief Chain: Brief Guide to Polymerization Terminology* - Luscombe

GM provided the report to SPT on behalf of *CKL*. *CKL* and Daniel Keddie were present on Skype (Prof. R. O'Reilly sent apologies). *JBM* and *JM* joined the group. Sections were assigned to Task Group members. Completion of this document is more than a year from completion, but progress has been made. End of October deadline to put together the paragraphs about each section for *CKL* to then collate.

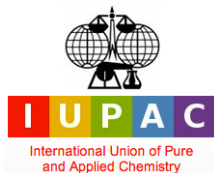
ACTION: All Task Group members to send their paragraphs and comments to *CKL* and *GM* by end of October 2017.

2013-001-1-800 *Structure-based nomenclature for regular linear star, comb and brush polymers* - Chen

The Task Group went over recent changes made by the group and held an additional meeting in the evening to include *KHH*.

JC provided a report: Star polymer project document, version 9, was sent to the members of Polymer Division and Nomenclature Division at the end of last year for review. Comments and suggestions have been received. The purpose of the Sao Paulo meeting was to discuss the comments and suggestions and finalize the project document. *KHH*, *TN*, *PT*, *RCH*, *CdS* and *JC* were present in the discussion in Sao Paulo. The attendees agreed that most of the comments and suggestions from Division VIII members are in general principles of polymer nomenclature from the viewpoint of an organic chemist. Most of the nomenclature suggestions from Division VIII members are beyond the scope of the star polymer project. We agreed that when the boundaries of the traditional field of chemistry become less distinct, such as polymers substituted by organic molecules and organic molecules substituted by oligomers or polymers, we need to keep each nomenclature system intact.

ACTIONS: The action items for the project were also discussed and determined in the meeting: The format of the text, tables and polymer structures in the document can still be improved. Task group members will send their final corrections/suggestions to *JC* by mid-



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August. *JC* will combine all the suggestions together to modify document version 9 to version 10. *KHH* will finalize the document to version 11 at his early convenience. Version 11 will be sent out for SPT review in November 2017.

2014-033-1-400 (Project Committee) *Polymeric Carriers: Nomenclature for Polymeric Carriers Bearing Chemical Entities with Specific Activities and Names* - Vert

MV highlighted that there were some problems in making significant progress due to small number of Task Group members that were able to attend the meetings. Division VIII have supported this project and the project expands beyond polymers. The Task Group went through the document that was prepared over the last two years. The document is well advanced and was polished during the meeting and the project should be finalised next year. *MV* thanked all who has helped on his project.

2012-048-2-400 *A Brief Guide to Polymer Terminology* - Hiorns

The team brainstormed to find areas of common questions and misunderstandings around polymer terms. Any of these terms not already in the current draft version of the document were then inserted for incorporation at a later date. The team then considered the order of the topics treated. It was decided that there would be two initial drafts made for students to check and see which version they would prefer. Within a few weeks *JV* and *RCH* will have two drafts ready for distribution to students. Over the next few months they will get feedback, to then distribute a near final draft in December to the group for consideration. Electronic exchanges will then be used to note where hyperlinks should be made, along with notes on where videos might be inserted. General guidelines for associated videos will also be developed.

By end February *RCH* expects to have a final text version together, and videos assembled and linked by June 2018 for final submission to SPT at the next meeting in Cairns.

ACTIONS: *RCH* and *JV* to distribute the next draft to the students.

RCH (following interaction with the students) to send the near final document to the Task Group for consideration.

2015-049-1-400 *Brief Guide to the Characterisation of Polymers* - Topham

PDT stated that the task group had the kick-off meeting and decided on the strategy to go for a Guide (rather than a Brief Guide) and to focus on Characterisation techniques and not properties. The rough initial structure was outlined, separating the document into two distinct sections: Structural and Behavioural Characterisation.

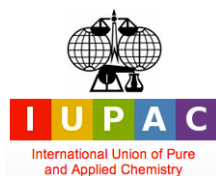
ACTIONS: *PDT* and *MH* to meet offline to get a confirmed structure to send around to the task group by 1st November 2017. A flow diagram will be created to help people decide how to characterise their polymer(s).

MH to send *PDT* a length scale 'spectrum' of where different characterisation techniques fit.

2016-xxx-1-400 (Project Committee) *Development of a Multilingual Glossary of Polymer Terminology with New Languages* – dos Santos

Claudio dos Santos. *CdS* stated that the website is working already but progress to the second phase to non-Western languages has stalled because the project is too expensive, primarily because it requires a genuine computer expert. The Task Group will try to run the project as a feasibility study and ask National Organisations (e.g. Chinese organisations who could be very interested in this project) and try to run relatively inexpensive student projects.

ACTION: *CdS* to try to get trained in computer skills for this project.



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2014-014-1-400 *Terminology for modeling and simulation of polymers* - Meille

GR gave the report on *SVM*'s behalf. Discussions on the project took place this week on skype with *SVM* and *PC* and in person with Kurt Kremer. The Task Group went through the document and now half of the required terms have been dealt with, whereas the other half lack definition. The group will try to organise a 3 day workshop in Milan. The current document will be sent to the Task Group today and *GR* predicts that the team are at least one year away from distribution to SPT.

ACTION: *SVM* and *GR* to organise a 3 day workshop in Milan.

2016-018-1-400 *Brief Guide to Polymer Microstructure* - Stingelin

NS stated that the Task Group had decided that the document will focus on the definition of terms for polymers in the solid-state and identified the structure of the document. *NS* will write the introduction and circulate to the team after 2 months. Task Group members will then help to populate the sections of the document.

ACTION: *NS* to write the introduction and distribution the skeleton document to the Task Group by the end of September.

2010-007-1-400 *Terminology for Chain Polymerization* - Moad

GM gave his report, stating that the Task Group solved a number of problems. Some terms (e.g. chain polymerisation, catalysis) required lengthy discussion, but progression was made and these issues will be addressed in the document. Named reactions still need to be dealt with. *JBM* and *JM* joined the team. Modifications brought into the document and will be distributed to the Task Group before Cairns (June 2018).

ACTIONS: *GM* to update the terms that required attention and will distribution the document to the Task Group.

2015-032-2-400 (Project Committee) *Synchronizing Wikipedia: Polymer Definitions and Terminology* - Hess

MH explained the status of the project and the progress made. *GTR* and *PT* joined the Task Group. The Task Group are dealing with over 200 terms and have put a Google Sheet together to categorise these terms depending on whether they are already (i) on Wikipedia; (ii) defined by IUPAC; and (iii) the IUPAC definition is on Wikipedia, or not. Members of the team will be going through the list of terms and populating Wikipedia with IUPAC definitions. The Task Group have scheduled a Skype call in November to discuss progress and next steps.

ACTIONS: Members to be trained in editing Wikipedia pages.

Members to populate Wikipedia with IUPAC definitions and keep the shared google spreadsheet (containing a list of terms) up to date.

Task Group to have a Skype meeting in November.

RCH to look into funding mechanisms to pay students on this project.

PT to look into Sentinel software for the project.

RCH to work on two new pages – source-based and structure-based nomenclature.

2012-001-1-400 *Terminology of Nanomaterials and Nanotechnology in Polymer Science* – Ober/Jones

NS delivered the report on behalf of *CKO* (who was at a Council meeting). The document was recently circulated to the whole of SPT. *CKO* will respond to the comments arriving,

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notably those by Prof. P. Kratochvíl, and again circulate the document to the TG, but otherwise the group was satisfied to let the document go forward.

2006-028-1-400 *Electric Field Responsive Polymers* – Vohlidal

NS delivered the report on behalf of *JV* (who was at a Council meeting). The name of the project has changed to ‘Electronic, Photonic and Magnetic Properties of Polymers (EPM)’. The document is in a good state, which will help *MW*’s project (SEMI). *CG* joined the TG. More work is needed on the document to update terms: Spintronics (*CG*, *NS* and *MW*); Thermoelectronics – *MW*; Energy gap, conjugation and delocalization of electrons – *JV*; Doping – *NS*; Capacitor, Memristor, resistor – *CG*. New draft should be distributed by the end of 2017.

2.1 Group Participations (Appendix 4)

The Task Group members were updated in Appendices 3 and 4.

AS, *CG*, *JBM*, *JM*, and *MM* joined SPT. *LG*, *FG*, Daniel Keddie, *MP*, Duyeol Ryu and Myung-Han Yoon were acknowledged for their enthusiasm and efforts this week and are welcomed in Australia next year as invited SPT Observers. Wenbing Hu (China) will be invited as an Observer for next year.

2.2 Future Projects (Appendix 1)

During the cross-discipline meeting between DIV IV and DIV VIII, the following projects were proposed (underlined name identified as Task Group Leader):

1. Electronic (formulas)

Andrey Yerin, *JBM*, *GM*, *MP*, *NS*, *PDT*, *PT*.

2. Associates and aggregates of polymers (forming shapes from different polymer chains)

TN, *VA*, *JC*, *CdS*, *FG*, *RCH*, *JBM*, *NS*, *PDT*.

Although this project arose from the DIV IV-DIV VIII meeting, it was decided that this was terminology and not nomenclature and therefore would be an SPT project only.

TN will lead an initial team of *VA*, *JC*, *FG* and *JBM*.

ACTION: *TN* will submit rough draft to *RCH* by Cairns (June 2018).

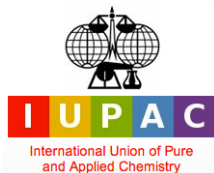
3. Sequence-control polymers

PT, *VA*, Fabio Arico (DIV VIII), *GM*, *JV*. Terminology and nomenclature project. *PT* will try to get this in as soon as he can.

ACTION: *PT* to try to get project proposal in within 3 months, but this may not be possible due to other commitments.

4. Graphical Representation revision

KHH, *MC*, *GM*, *PT*, *PDT*, *JV*, Andrey Yerin. There is overlap here with project #1, but it was decided to keep them as separate projects. This is a longer term project.



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SPT gave approval for all of the above projects to go forward to application stage, although accepting that the graphical representation project will take longer to formulate.

The following three projects were proposed during the SPT meeting:

5. Degradation of Polymers

Prof. Jean-Luc Gardette (*LG*, France) presented his project proposal by Skype. He has looked through the previous Pure and Applied Chemistry (PAC) papers concerning Polymer Degradation. Some terms need to be included and the definition of some terms (e.g. degradation, ageing) need to be addressed/defined more precisely.

SPT members feel that this project should be a 'Revision to the previous document' rather than a new project. Potential Task Group members who expressed an interest: *JC*, *CdS*, *CF*, *FG*, *MH*, *MM*, *NS* and *PT*. *MV* (not present at the time) was also proposed as a person who might be interested in joining. There was approval for this project to go forward to application.

ACTION: *LG* and *RCH* to exchange on formulation of project proposal.

6. Degradation of Polyolefins

MM delivered a presentation on the degradation of polyolefins. *MM* already has a project proposal outline. *LG* sees a link between their projects and it was agreed that there will need to be close collaboration between these two projects. SPT gave approval for the project to be supported through to application by *MM*. Potential Task Group members who expressed an interest: *MC*, *FG*, *LG*, *MH*, *JM* and *MP*.

7. Terminology of Dynamic Polymers

JV discussed his idea of polymers based on dynamic chemistry. *JV* has already prepared some text for the proposal. This is different from aggregation project (*JV*'s project concerns dynamic covalent bonding, whereas *TN*'s focuses on supramolecular aggregation). Approval from SPT for this to go forward quickly. Task Group members who expressed an interest: *OP* and *PT*.

ACTION: *JV* to finish off the proposal within 3 months.

During the cross-discipline meeting between DIV IV and DIV VII, the following two projects were initiated and should call for further refinement of concept:

8. Polymer of Relevance to Human Health

NS to lead this project with proposed members of *CG*, Vladimir Gubala, Linda Johnston, *GM*, Michael Schwenk, *PDT* and *MV*.

ACTION: *NS* to contact Vladimir Gubala to get an idea for a proposal within 3 months.

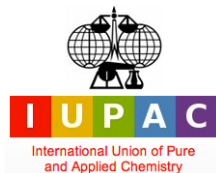
9. Terminology of Polymer Biodegradation and Toxicology in Polymers

Vladimir Gubala to lead a project idea with proposed members of *FG*, *LG*, Harald Krug, *MP*, *NS* and *MV*.

ACTION: Wait for DIV VII.

Feasibility Projects (more complete stories to be reported in Cairns):

10. Polymers for 3D printing



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MW, PT, NS, JM, CdS will start kicking ideas around with *MW*.

11. GM- topologically active surfaces

GM, CF, GR and (potentially) *PT*.

12. Purple Book

RCH and *GM* will put a team together to look at a new edition of the Purple Book. *RCH* and *GM* to take this forward, in discussion with *RGJ, MH* and *PT*. *RCH* needs to rediscover the reasons from ICTNS as to why this project is necessary.

ACTION: *RCH* to contact ICTNS & *GM* to take this project forward.

13. Stereochemistry project

CF to discuss with DIV VIII.

2.3 Project Extensions

The possibility of the extension to 2010-007-1-400 Chain polymerization was raised. Funds were still available however the time limit may require extension.

ACTION: *RCH* to contact *GM* and Fabienne Meyers to check time and funding status.

2.4 Dates of the next meeting in Cairns, Australia

Macro Year

SPT 26 – 29th June 2018

Polymer Division 30th June – 1st July 2018

Macro (Conference) 1st – 5th July 2018

PDT and *RCH*, 14^h November 2017.

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Appendix 1. Meeting Agenda

Sheraton São Paulo World Trade Center, São Paulo, Brazil,

Monday 10th to Thursday 13th July 2017

Summary

	9	10	11	12	13	14	15	16	17	18		
Monday	SPT	Break	KHH Lecture	Lunch		Projects	Break	Projects	R	InChi	H	Close
Tuesday	Projects		Projects			Projects		R	H	Close		
Wednesday	Projects		Projects			Projects		R	H	Close (SPed...)		
Thursday	Projects		SPT & Close			Tour						

R = SPT reports	Morning breaks: 10:30 to 10:50
H = Housekeeping	Lunch: 12:00 to 14:00
InChi = International Chemical Identifier lecture (Ray Boucher)	Afternoon breaks: 15:30 to 15:50

MONDAY

Time	Item	Subject
09:00	1.0	Welcome and Apologies
	1.1	Approval of Minutes from the Istanbul SPT meeting of 2016
	1.2	Matters arising from the 2016 Minutes
	1.3	Project Statuses and Objectives (see Appendix 2)
	1.4	Timetable for the Sao Paulo meeting (Appendix 3)
	1.5	Social Events (PDT)
10:30	Break	
10:50	Invited Lecture and Discussion: <i>Polymer Nomenclature</i> , Prof. K.-H. Hellwich	
12:00	Lunch	
14:00	Projects	
15:30	Break	
15:50	Projects	
17:10	Reports to SPT	
17:20	International Chemical Identifier lecture, Dr. Ray Boucher	
17:50	Housekeeping	
18:00	Close	

TUESDAY

09:00	Project work	14:00	Project work
10:30	Break	15:30	Break
10:50	Project work	15:50	Project work
12:00	Lunch	17:10	Reports to SPT
		17:20	Housekeeping
		17:30	Close

WEDNESDAY

09:00	Project work	14:00	Project work
10:30	Break	15:30	Break
10:50	Project work	15:50	Project work
12:00	Lunch	16:40	Reports to SPT
		16:50	Housekeeping
		17:00	Close

THURSDAY

09:00	Project work
10:30	Break
10:50	Reports to SPT
11:00	1.6 Future projects studies (see Appendix 4)
	1.7 Project Extensions
	1.8 Group participations (see Appendix 4)
11:50	2.0 Any other business
	2.1 2018 Meeting: Cairns, Australia
	Housekeeping
12:00	Close

PDT & RCH, 7th June, 2017.

Appendix 2. Rules of the Subcommittee on Polymer Terminology

1. The **membership** of the Subcommittee shall be decided by its **Official Members and approved by the Polymer Division Committee**. The Official Members are nominally those listed within the IUPAC Division IV webpages, but the official membership may be changed at any time with the agreement of the current Official Members.
2. Besides the Official Members, there are **Consultants** (former members who are still active), **Correspondents** (persons with only a loose connection with the Subcommittee), and **Observers** (persons who are invited by the Chairperson of the Subcommittee and approved by the Official Members of the Subcommittee).
3. No person shall be an **Observer** for more than two years but in the light of evidence of their contribution to the work of the Subcommittee they shall thereafter be invited to be Official Members.
4. **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** shall have their membership withdrawn.
5. No person shall remain an **Official Member, Consultant or Correspondent** of the Subcommittee who in the collective judgement of the Chairman, the Secretary, the Polymer Division President and Division Secretary have abused their membership and thereby their association with the Polymer Division.
6. **The list of the Consultants, Correspondents and Observers** will be reviewed annually by the Official Members. In addition, names can be added or removed at any time with the Subcommittee Chairperson's approval.
7. **Initiatives for polymer 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 Official Members present at the meeting where it is proposed and will be subject to the Subcommittee Chairperson's approval.
8. 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 Leader of the proposed project and sent to the Subcommittee Chairperson who submits the form.
9. The names of the **Task Group Leaders** for official IUPAC recommendations and other projects are subject to the approval of the Subcommittee Chairperson and at least one Task Group Leader shall be an Official Member of the Subcommittee.
10. Provided they have relevant expertise, **Membership** of the task groups for official IUPAC recommendations and other projects is open to all Official Members, Consultants, Correspondents and Observers, subject to the approval of the Subcommittee Chairperson and the Task Group Leader.

Any member of a task group is free to propose additional, external members who could start as Observers or Correspondents with the approval of the Subcommittee Chairperson.

No Task Group Member should over commit through membership of too many Task Groups.

11. The **budgets** for individual projects will be made available by the Task Group Leaders for the use of the Subcommittee Chairperson to help attendance at the annual meetings of the Subcommittee.

12. The use of project budgets by Task Group Leaders for Task Group Meetings on individual projects shall be with the agreement of the Subcommittee Chairperson.

13. Task Group Leaders shall report progress to the annual meetings of the Subcommittee either in person or by asking another to represent them. It is expected that there should be clear evidence that they are driving their project(s) towards completion.

14. 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 Leader(s). Membership of a task group does not automatically mean authorship.

Authors will normally be listed with the Task Group Leader(s) preceding the other authors and with Task Group Leader(s) and other authors being listed, respectively, in English alphabetical order. In the case of a dispute, the matter will be decided by a majority vote of the official subcommittee members present at the meeting at which the authorship is being decided.

15. Each **official IUPAC recommendation** prepared by the Subcommittee shall list the Official 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 Leader(s) 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 Official 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 Titled Members of the Commission during that period and list the Associate Members and others who, in the opinion of the Task Group Leader(s) and the Subcommittee Chairman, contributed significantly to the recommendation.

16. 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). The translation should be identified as such and the original IUPAC cover page should precede the translation.

17. The Chair will be elected by Official Members to take up his/her position in the January of the following year. Any Official Member may become Chair through this process following nomination by at least one Official Member. The Chair appoints the Secretary.

Appendix 3. List of Projects and Publications

Translations

Please inform the Secretary of translations that you might be aware of that have occurred during the last year.

1. **The following projects delivered the following publications or have been accepted for publication:**
 - **2003-042-1-800 Source-based nomenclature – Jones:** published as, ‘*Source-based nomenclature for single-strand homopolymers and copolymers* (IUPAC Recommendations 2016)’, R. G. Jones, T. Kitayama, K.-H. Hellwich, M. Hess, A. D. Jenkins, J. Kahovec, P. Kratochvíl, I. Mita, W. Mormann, C. K. Ober, S. Penczek, R. F. T. Stepto K. Thurlow, J. Vohlídal, E. S. Wilks, *Pure & Appl. Chem.*, **2016**, 88, 1073-1100.
 - **2008-015-1-400:** Preferred names Accepted as, *Preferred names of constitutional units for use in structure-based names of polymers (IUPAC Recommendations 2017)*, W. Mormann, K.-H. Hellwich, J. Chen. E. Wilks, *Pure Appl. Chem.* **2017**.

2. **The following projects are currently in public review:**
 - **2001-081-1-800:** (DENDRITIC) Terminology and structure-based nomenclature of dendritic and hyperbranched polymers*
 - **2014-033-1-400:** (LACTIC) *Nomenclature and terminology relevant to lactic acid-based polymers: synthesis, structure, properties, applications and degradation* - Vert

3. **The following projects are expected to be sent to public review in the next few months:**
 - **2008-020-1-400:** (WEB-GUIDE) *Revision of the web-based guide, IUPAC Recommendations on Macromolecular Nomenclature – Guide for Authors of Papers and Reports in Polymer Science and Technology*
 - **2012-001-1-400:** (NANO) *Terminology of nanomaterials and nanotechnology in polymer science*

4. **The following projects are in preparation:**
 - **2006-028-1-400:** (FIELD) *Terminology for conducting, electro-active and field-responsive polymers* - Vohlídal
 - **2009-047-1-400:** (STEREOCHEM) *Definitions and notations relating to stereochemical aspects in polymer science* – Hellwich & Moad
 - **2010-007-1-400:** (CHAIN) *Terminology for chain polymerization* – Luscombe & Moad
 - **2010-036-1-400:** (KEYWORDS) *Keywords in polymer science journals* – Stamkosski
 - **2011-035-1-800:** (TINCOPS) *Terminology and nomenclature of inorganic and coordination polymers– a extended revision of Nomenclature for regular single-strand and quasi-single-strand inorganic and coordination polymers (1984)** - Jones
 - **2012-048-3-400:** (B-TERMS) *A brief guide to polymer terminology* - Hiorns
 - **2013-001-1-800:** (STAR) *Structure-based nomenclature for regular linear star, comb and brush polymers** -
 - **2014-034-2-400** (CAR) *Nomenclature for polymeric carriers bearing chemical entities with specific activities and names* – Vert
 - **2015-013-1-400:** (POLY) *Brief Guide to Polymerization Terminology* – Luscombe
 - **2015-014-1-400:** (SEMIS) *Guide (and Brief Guide) to Polymer Semiconductors* – Walter
 - **2015-032-2-400:** (WIKI) *Synchronizing Wikipedia: Polymer Definitions and Terminology* – Hess

* Division VIII project pursued under the auspices of SPT.

- **2015-050-1-400** (ULTIMATE) *Definition of Terms Relating to the Ultimate Mechanical Properties of Polymers* – Adhikari
 - **2016-050-3-400**: (μ STRUCTURE) *Definition of Terms Pertaining to Polymers in the Solid State: Molecular Arrangement from the Nano- to the Micrometer Scale* - Stingelin
- 5. The following projects have recently been accorded funding or extension or both:**
- **2015-049-1-400** (CHAR) *Brief Guide to the Characterisation of Polymers* – Topham
- 6. Projects submitted or close to submission to IUPAC for funding:**
- **2016-XXX-1-400**: (LINGUAL) *Development of a multilingual glossary of polymer terminology with new languages (Project Committee)* – dos Santos
 - 2016-040-1 (ADD) *Additives intended to promote the degradation of polyolefin-based thermoplastic materials* – Malinconico

7. Feasibility Studies:

<u>Electronic (formulas)</u>	<u>Andrey Yerin, JBM, GM, MP, NS, PDT, PT.</u>
<u>Associates and aggregates of polymers</u>	<u>TN, VA, JC, CdS, FG, RCH, JBM, NS, PDT.</u>
<u>Sequence-control polymers</u>	<u>PT, VA, Fabio Arico (DIV VIII), GM, JV.</u>
<u>Graphical Representation revision</u>	<u>KHH, MC, GM, PT, PDT, JV, Andrey Yerin</u>
<u>Degradation of Polymers</u>	<u>LG, RCH</u>
<u>Degradation of Polyolefins</u>	<u>MM</u>
<u>Terminology of Dynamic Polymers</u>	<u>JV</u>
<u>Polymer of Relevance to Human Health</u>	<u>NS</u>
<u>Terminology of Polymer Biodegradation and Toxicology in Polymers</u>	<u>Vladimir Gubala, FG, LG, Harald Krug, MP, NS and MV</u>
<u>Polymers for 3D printing</u>	<u>MW, PT, NS, JM, CdS</u>
<u>GM- topologically active surfaces</u>	<u>GM, CF, GR and (potentially) PT.</u>
<u>Purple Book</u>	<u>RCH and GM to discuss with RGJ, MH and PT</u>
<u>Stereochemistry project</u>	<u>CF</u>
<u>http of PB2</u>	<u>GM, RCH, RGJ, CKL</u>
<u>Renewable and recycled polymers</u>	<u>JPV, RA, CdS, AF, MH</u>
<u>Polymers for bioelectronics</u>	<u>MW, RCH, SVM</u>
<u>Ionic liquids/polymer inorganic devices</u>	<u>CKO, CKL, SVM, GM</u>
<u>Mediatized terms</u>	<u>CdS, RCH, CKL</u>
<u>Modified extended short hand names</u>	<u>MV, KHH, RCH, GM</u>
<u>Adhesion, adhesive polymers and associated terminologies</u>	<u>JPV</u>

Appendix 4. Preliminary SPT Schedule – São Paulo, Brazil

	9:00 - 10:30	10:30 - 10:50	10:50-12:00	12 - 2	2 - 3:30	3:30 - 3:50	3:50 - 5:10	5:10
Mon. 10 th	SPT		Invited Lecture and Discussion 'Polymer Nomenclature' Dr. Karl-Heinz Hellwich		Lactic – Vert, Chen, Scholz, Vohlidal, Hellwich, Nakano, Scholz, Slomkowski		Lactic – Vert, Chen, Scholz, Vohlidal, Hellwich, Nakano, Scholz, Slomkowski	5:10-6:00 Reports / Invited Lecture, InChi, Dr. Ray Boucher / House- keeping
					Semis – Walter, Bao, Boucher, Loo, Hiorns, Luscombe, Meille, Nakano, Ober, Stingelin, Topham		Semis – Walter, Bao, Boucher, Loo, Hiorns, Luscombe, Meille, Nakano, Ober, Stingelin, Topham	
Tue. 11 th	Stereochem Hellwich, Moad, Fellows, Kitayama, Meille, Nakano, Vert				POLY – Luscombe, Moad, Beuermann, Boucher, Hiorns, Jones, Keddie, Nakano, O'Reilly, Russell, Topham, Vairon, Wassermann, Yokozawa		POLY – Luscombe, Moad, Beuermann, Boucher, Hiorns, Jones, Keddie, Nakano, O'Reilly, Russell, Topham, Vairon, Wassermann, Yokozawa	5:10-5:30 Reports / House- keeping
	Characterization Topham, Hess, Chang, He, Saiter, Simon, Schoenherr, Vohlidal, Rose.		Characterization Topham, Hess, Chang, He, Saiter, Simon, Schoenherr, Vohlidal, Rose.					
	Stars – Chen, Wilks, Hellwich, Fradet, Hiorns, Nakano, Vert		Stars – Chen, Wilks, Hellwich, Fradet, Hiorns, Nakano, Vert		Microstructure – Stingelin, He, Hess, Ober, Mielle, Moad, Topham		Microstructure – Stingelin, He, Hess, Ober, Mielle, Moad, Topham	7:00 Stars- Sheraton Lobby
	Brief Terms Hiorns/Vohlidal, Boucher, Do, Hess, Hodge, Jones, Kratochvíl, Luscombe, Moad, Ober, Stingelin, Walter, Vairon		Brief Terms Hiorns/Vohlidal, Boucher, Do, Hess, Hodge, Jones, Kratochvíl, Luscombe, Moad, Ober, Stingelin, Walter, Vairon		Stars – Chen, Wilks, Hellwich, Fradet, Hiorns, Nakano, Vert		Polymeric Carriers – Vert Chen, Hiorns, Jones, Moad, Yerin, Moss	
Wed. 12 th	Wiki – Hess, He, Hiorns, Luscombe, Ober, Moad, Rumbles, Stingelin, Topham, Walker		Wiki – Hess, He, Hiorns, Luscombe, Ober, Moad, Rumbles, Stingelin, Topham, Walker		Chain – Moad Fellows, Hodge, Jones, Luscombe, Nakano, Penczek, Russell, Topham, Vairon		Chain – Moad Fellows, Hodge, Jones, Luscombe, Nakano, Penczek, Russell, Topham, Vairon	5:00 – 7:00 Subcommittee on Polymer Education-
	Field – Vohlidal, Stingelin, Hiorns, Luscombe, Ober, Jones, Topham, Walter		Field – Vohlidal, Stingelin, Hiorns, Luscombe, Ober, Jones, Topham, Walter		Lingual – dos Santos, Adhikari, Chin Han, He, Ho Do, Jalal, Nakano, Philippova		Lingual – dos Santos, Adhikari, Chin Han, He, Ho Do, Jalal, Nakano, Philippova	
	Nano – Ober, Jones, Stingelin, Carter, Hayakawa, Luscombe, Meille, Reichmannis, Schmidt, Slomkowski, Ueda, Walter		Nano – Ober, Jones, Stingelin (local chair), Carter, Hayakawa, Luscombe, Meille, Reichmannis, Schmidt, Slomkowski, Ueda, Walter		ModSim – Meille, Muthukumar, Nakano, Raos, Russell, Rutledge, Stingelin, Moad		ModSim – Meille, Muthukumar, Nakano, Raos, Russell, Rutledge, Stingelin, Moad	
	Carriers – Vert Chen, Hiorns, Jones, Yerin, Moss, Moad		Carriers – Vert Chen, Hiorns, Jones, Yerin, Moss, Moad					
Thur. 13 th	Wiki – Hess, He, Hiorns, Luscombe, Ober, Moad, Raos, Rumbles, Stingelin, Topham, Walker		SPT				Tour	

Appendix 5. Current Projects and Task Group Members

Project code and name	Active TG Members
SPT PROJECTS	
2006-028-1-400 Electric Field Responsive Polymers	Vohlidal , Graeff, Hiorns, Jones, Luscombe, Ober, Stejskal, Stingelin, Topham, Walter
2008-015-1-400 Preferred Names for Polymers	Mormann , Chen, Hellwich, Wilks
2008-020-1-400 Revision of "IUPAC Recommendations on Macromolecular Nomenclature; Guide for Authors of Papers and Reports in Polymer Science and Technology"	Hodge , Hellwich, Hiorns, Jones, Luscombe, , Stingelin, Walter, Wilks
2009-047-1-400 Definitions and Notations Relating to Stereochemical Aspects in Polymer Science	Hellwich , Moad , Fellows, Meille, Nakano, Vert
2010-007-1-400 Terminology for Chain Polymerization	Moad , Fellows, Jones, Kitayama, Luscombe, Matson, Matyjaszewski, Merna, Nakano, Penczek, Russell, Topham
2010-036-1-400 Keywords	Slomkowski , Adhikari, dos Santos, Kubisa, Hiorns, Jones, Luscombe, Nakano, Russell, Stingelin, Walter
2012-001-1-400 Terminology of Nanomaterials and Nanotechnology in Polymer Science	Ober & Jones , *Carter, *Hayakawa, Luscombe, Mansfield, Meille, *Reichmannis, *Schmidt, Slomkowski, Stingelin, Theato, *Ueda, Walter *consultants
2012-048-2-400 A Brief Guide to Polymer Terminology	Hiorns , Vohlidal , Boucher, Chin Han, Do, Duhlev, Hodge, Jones, Kratochvíl, Luscombe, Matson, Moad, Philippova, Ober, Russell, Slomkowski, Stingelin, Theato, Walter, Vairon, Vert
2013-049-1-400 Terminology on the Separation of Macromolecules	Hess , Chang, Kratochvíl, Moad
2014-014-1-400 (MODSIM) Terminology for modeling and simulation of polymers	Meille , Carbone, De Pablo, Field, Kremer, Moad, Muthukumar, Nakano, Raos, Russell, Rutledge, Stingelin, Sturcova
2014-033-1-400 (Project Committee) (CAR) Polymeric Carriers: Nomenclature for polymeric carriers bearing chemical entities with specific activities and names	Vert , Chen, Hellwich*, Hiorns, Jones, Merna (O), Moad, Moss, Yerin
2014-034-2-400 (LACTIC) Nomenclature and terminology relevant to lactic acid-based polymers: synthesis, structure, properties, applications and degradation	Vert , Chen, Hellwich, Hodge, Nakano, Penczek, Scholz, Slomkowski, Vohlidal
2015-013-1-400 (CHAIN) Brief Chain: Brief Guide to Polymerization Terminology	Luscombe , Moad , Beuermann, Boucher, Fellows, Hiorns, Jones, Keddie*, Malinconico, Matson, Merna, Nakano, O'Reilly*, Russell, Topham, Vairon*, Vohlidal, Wassermann, Yokozawa*
2015-014-1-400 (SEMIS) Guide (and Brief Guide) to Polymer Semiconductors	Walter , Bao*, Boucher, Carbone, Graeff, Jeffries-El*, Loo*, Hiorns, Stingelin, Luscombe, Meille, Nakano, Ober, Reynolds*, Topham, Vohlidal
2015-032-2-400 (Project Committee) Synchronizing Wikipedia: Polymer Definitions and Terminology	Hess , dos Santos, Fellows, He, Hiorns, Luscombe, Merna, Moad, Ober, Peeters, Raos, Rumbles, Russell, Stingelin, Theato, Topham, Walker, Walter
2015-050-1-400 Definition of Terms Relating to the Ultimate Mechanical Properties of Polymers	Adhikari , He, Henning, Hess, Lacs, Raos, Stingelin, Topham
2016-050-3-400 Definition of Terms Pertaining to Polymers in the Solid State: Molecular Arrangement from the nano- to the micrometer Scale	Stingelin , He, Hess, Meille, Moad, Ober, Raos, Sturcova, Topham, Vohlidal
2015-049-1-400 (CHAR) Guide to the Characterisation of Polymers	Topham , Boucher, Chang, dos Santos, Graeff, Hess, He, Merna, Moad, Philippova, Saiter, Schoenherr, Simon, Stingelin, Sturcova, Vohlidal

PROJECTS SUBMITTED OR TO BE SHORTLY SUBMITTED	
2016-xxx-1-400 Development of a Multilingual Glossary of Polymer Terminology with New Languages (Project Committee)	dos Santos , Adhikari, He, Ho Do, Chan, Jalal Nakano, Philippova, Theato
INTERDIVISIONAL PROJECTS	
2001-081-1-800 Dendritic & Hyperbranched	Fradet , Chen, Hellwich, Mormann, Vohlidal, Wilks
2003-042-1-800 Source-Based Nomenclature of Source-based Nomenclature of Single-strand Organic Polymers	Jones , Kitayama , Hellwich, Hodge, Kratochvíl, Mormann, Ober, Vohlidal, Wilks
2011-035-1-800 Nomenclature of Inorganic Polymers (TINCOPS)	Jones , Batten (Blight) Damhus, Hiorns, Öhrström, Reedijk, Walter
2013-001-1-800 Structure-based nomenclature for regular linear star, comb and brush polymers	Chen , dos Santos, Fradet, Hellwich, Hiorns, Nakano, Theato, Wilks

NEW PROJECTS IN PREPARATION

Electronic (formulae)	Yerin , Matsen, Moad, Peeters, Stingelin, Theato
Associates and aggregates of polymers	Nakano , Abetz, Chen, dos Santos, Giuntini, Hiorns, Matsen, Stingelin, Topham
Sequence-control polymers	Theato , Abetz, Arico (DIV VIII), Moad, Vohlidal
Graphical Representation revision	Hellwich (DIV VIII), Chan, Moad, Theato, Topham, Vohlidal, Yerin (DIV VIII)
Degradation of Polymers	Gardette , Hiorns
Degradation of Polyolefins	Malinconico
Terminology of Dynamic Polymers	Vohlidal
Polymer of Relevance to Human Health	Stingelin
Terminology of Polymer Biodegradation and Toxicology in Polymers	Vladimir Gubala , Giuntini, Gardette, Harald Krug, Peeters, Stingelin, Vert
Polymers for 3D printing	Walter , dos Santos, Matsen, Stingelin, Theato
Topologically active surfaces	Moad , Fellows, Raos, (potentially) Theato
Purple Book	Hiorns and Moad to discuss with Jones, Hess and Theato
Stereochemistry	Fellows
http of PB2	Moad , Hiorns, Jones, Luscombe
Renewable and recycled polymers	Vairon , Adhikari, dos Santos, Fradet, Hess
Ionic liquids/polymer inorganic devices	Ober , Luscombe, Meille, Moad
Mediatized terms	dos Santos , Hiorns, Luscombe
Modified extended short hand names	Vert , Hellwich (DIV VIII), Hiorns, Moad
Adhesion, adhesive polymers and associated terminologies	Vairon

Appendix 6. DIV IV- DIV VIII Filenote

Sunday 9th July 2017 10:30 am
Matisse Meeting Room

This document is not designed to be a comprehensive set of minutes for the interdivision meeting between Division IV and VIII, but is a record of the participants and the most important matters arising.

Participants:

Chair: Roger Hiorns (DIV IV)

Paul Topham (IV), Karl-Heinz Hellwich (VIII), Jiri Vohlidad (IV & VIII), Patrick Theato (IV), Graeme Moad (IV), Tamaki Nakano (IV), Volker Abetz (IV), Claudio dos Santos (IV), Marloes Peeters (YO), Francesca Giuntini (YO), Fabio Arico (VIII), Duyeol Ryu (IV YO), Myung-Han Yoon (IV YO), Jean-Pierre Vairon (IV), Werner Mormann (IV), John Matson (IV YO), Andrey Yerin (VIII), Michel Vert (IV), Michael Hess (IV), Greg Russell (IV), Melissa Chin Han Chan (IV).

The meeting focused on potential projects of interest for collaboration between Division IV and Division VIII. After comments from most participants around the room, there were four common potential projects that were identified to take forwards:

Projects (underlined name identified as Task Group Leader)

1. Graphical representation of polymers (formulas)

Paul Topham, Patrick Theato, Andrey Yerin, Natalie Stingelin, Graeme Moad, John Matson, Marloes Peeters.

2. Associates and aggregates of polymers

Paul Topham, Natalie Stingelin, Francesca Giuntini, Tamaki Nakano, Volker Abetz, John Matson, Claudio dos Santos, Roger Hiorns.

3. Sequence-control polymers

Patrick Theato, Jiri Vohlidad, Volker Abetz, Graeme Moad, Fabio Arico.

4. Graphical Representation revision

Melissa Chin Chan Han, Patrick Theato, Jiri Vohlidad, Graeme Moad, Andrey Yerin, Paul Topham, Karl-Heinz Hellwich. There is overlap here with project #1, but it was decided to keep them as separate projects.

PDT. 9th July 2017.

Appendix 7.

**Minutes of the 1st Inter Division Meeting of Polymer (Div IV) and Chemistry and Human Health Division (Div VII)
11.20 am on Sunday, 9 July 2017 at Room Miró.**

No	Present	email
	<i>In person</i>	
1	A. Ganesan	a.ganesan@uea.ac.uk
2	Francesca Giuntini	f.Giuntini@lymu.ac.uk
3	Geok Bee Teh	sharonteh2009@gmail.com
4	Graeme Moad	Graeme.moad@csiro.au
5	Greg Russell	greg.russel@canterbury.ac.nz
6	Jean-Pierre Vairon	jean.pierre.vairon@upme.fr
7	Marloes Peeters	m.peeters@mmu.ac.uk
8	Melissa Chin Han Chan	cchan_25@yahoo.com.sg
9	Michel Vert	vert@univ-montp1.fr
10	Natalie Stingelin	natalie.stingelin@gatech.edu
11	Patrik Theato	theato@chemie.uni-hamburg.de
12	Roger C. Hiorns (Chair)	rogerhiorns@univ-pau.fr
13	Tamaki Nakano	tamaki.nakano@cat.hokudai.ac.jp
14	Thomas Perun	TJPerun@aol.com
15	Vladimir Gubala	v.gubala@kent.ac.uk
16	Volker Abetz	volker.abetz@hzg.de

Item	Matters Discussed	Action by
1.1	Roger (in the chair) as the Chairperson of Subcommittee on Polymer Terminology (SPT) welcomed everyone for the interdivision meeting. He mentioned that the roles of SPT are to develop terminology and nomenclature on polymer sciences.	Info
1.2	Michel and Chris Ober have been the contact persons between Division IV and Division VII. So far, one successful project was completed.	Info
1.3	Greg as the President of Division IV shared the roles and responsibilities of four subcommittees under Polymer Division, i.e. (1) Subcommittee on Polymer Terminology (2) Subcommittee on Polymer Education (3) Subcommittee Structure and Properties of Commercial Polymers (4) Subcommittee on Modeling of Polymerization Kinetics and Processes	Info
1.4	Thomas Perun, the Chair of Division VII, introduced the roles and responsibilities of three subcommittees under Division VII. (1) Subcommittee on Nomenclature for Properties and Units (SC-NPU) (2) Subcommittee on Drug Discovery and Development (3) Subcommittee on Toxicology and Risk Assessment	Info

Item	Matters Discussed	Action by
	Major aspects of Division VII are the development of therapeutic drugs, the standardization of clinical laboratory methods and the protection of humans from potential harmful substances.	
2.1	Natalie shared the opinion that there has been communication gap between Division IV and Division VII.	Info
2.2	Vladimir Gubala suggested that more works have to be carried out on polymer toxicology. Natalie gave the opinion that common nomenclature on biology works should be adopted for polymer scientists and biologists.	Info
2.3	Vladimir Gubala expressed his concern on the interchanged terminology on “association”, “aggregation” & “agglomeration” on nanomaterials. Many people are using polymers with lacking of knowledge on polymer sciences. For examples, the difference between PEG and PEO.	Info
3.1	Roger suggested that initiatives should be made on “IUPAC recommendation” instead of brief guide.	Info
3.2	Three projects were initiated and should call for further refinement of concept, they are:- (1) Polymer of Relevance to Human Health Natalie to lead with proposed members of Michael Schwenk, Vladimir, Grame, Linda Johnston and Paul Topham (2) Terminology of Polymer Biodegradation and Toxicology in Polymer Valdimir to lead (to kick start a project document) with proposed members of Natalie, Marloes, Michel, Francesca, Harald Krug and Luc Gardette	Natalie & Valdimir
4.1	Michel suggested the members involved in new project may refer to:- Pure & Appl. Chem., Vol. 68, No. 12, pp. 2313-2323, 1996 Definitions of Terms Relating To Degradation, Aging, and Related Chemical Transformations of Polymers	Info
5.1	Roger suggested that further discussion can be made on interdivision projects during closing meeting of SPT on Thursday, 13 th July 2017 in Matisse room.	Roger
6.1	There being no other matters, the meeting was adjourned at 12.05 pm.	

MCHC, 9th July 2017

Appendix 8. Contact Addresses of Members of SPT

Dr. Roger C. HIORNS (Chair)
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