

INSTITUTE OF MACROMOLECULAR CHEMISTRY  
ACADEMY OF SCIENCES OF THE CZECH REPUBLIC  
INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY



# CONTEMPORARY WAYS TO TAILOR-MADE POLYMERS

PRAGUE, 18 – 22 July 2010

PROGRAMME BOOKLET



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Abstracts, except for their headings, are printed without editing.

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## **74th Prague Meeting on Macromolecules**

under the auspices of the

### **INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY**

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President of the Polymer Division

Organized by the

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# GENERAL INFORMATION

## VENUE

All sessions will be held in the Institute of Macromolecular Chemistry of the Academy of Sciences of the Czech Republic, Praha 6, Heyrovského nám. 2.

## Language

English is the working language of the Conference.

## REGISTRATION

On-site registration of participants takes place on Sunday, 18 July, from 16:00 to 19:00 in the Institute of Macromolecular Chemistry and continues the next day from 8:00 to 16:00.

The Conference Office operates on 19 – 22 July (Monday through Thursday) from 8:00 to 12:30 and (except Wednesday) from 13:30 to 16:00.

All participants must register. Only persons wearing name badges are entitled to enter the lecture room in the Institute.

## Registration fees

On-site cash payment of the registration fee is considered as a late payment. The PMM Secretariat accepts EC/MC, EDC/Maestro and VISA cards at the Registration desk.

## PRESENTATION OF CONTRIBUTIONS

### Keynote lecture

The presentation time for each keynote lecture is 40 min, including discussion.

### Special lecture

The presentation time for a special lecture is 25 min, including discussion.

## **Poster communication**

The poster sessions will be held in the lobbies of the Institute. Material to fix posters will be provided on-site. The posters can always be mounted after lunch, i.e. during the afternoon coffee break and should be removed after the poster session.

## **Presentation file upload**

It is advised to test the presentation files well before the lecture is scheduled, ideally the day before. The organizers prefer the speakers to have their presentations uploaded in advance on the projection system. If the speakers need to use their own laptops, the connection and projection test is essential - the day before at the latest! The file upload spot will be located in the rear of the lecture hall A. For file upload assistance turn to the IT administrator, Mr Jiří Kaprálek.

Please use your last name as the presentation file name. If other than the digital projection technique should be used consult the organizers.

## **Recordings**

The audio/video recording of the lectures or copying of the lecture files is not allowed without the prior agreement of the speaker or the author. The organizers reserve the right to take documentation photographs during the meeting.

## **PUBLICATION OF PAPERS**

Keynote, special lectures and selected poster communications will be published in the renowned scientific journal.

## **REFRESHMENTS AND LUNCHES**

Coffee, tea, and soft drinks will be served during breaks.

Lunch-buffet will be open from Monday through Thursday from 12:00 to 14:00 in the dining hall of the Institute.

Refreshments and lunches are included in the registration fee.



## **SOCIAL EVENTS**

### **Sunday, 18 July**

16:00 – 19:00 Registration, refreshment

### **Monday, 19 July**

18:00 – 22:00 *Welcome drink, eating, icebreaking and bowling.*

You can expect an informal evening in a cozy place only 10 minutes from the Conference venue. A welcome dinner takes place in the former farmstead “Ladronka”, open to all participants of the conference from 19:00 to 23:00. You can play bowling or have a dance in the open air.

### **Tuesday, 20 July**

Evening is free, go and explore Prague

### **Wednesday, 21 July**

**14:00 – 19:00** *Sightseeing tour to the Křivoklát castle – how was it 900 years ago.*

An air-conditioned bus would take you 40 km west from Prague to a beautiful place in the middle of forests – Křivoklát castle. Křivoklát was hit by fire every 200 years in its rich history. Don't worry; the castle was partly damaged by fire for the first time in 1422, so we stay out of fire order this year. The magnificent castle was founded exactly 900 years ago. The historical menu offers a beautiful castle chapel, the Great Royal and Chivalric Halls with an exhibition of Gothic paintings and sculptures, the castle library containing over 52.000 bands, a rich museum and a painting gallery of the Fürstenberg, a famous castle prison, a monumental tower with a collection of hunting trophies and a view of the surrounding area, a pleasant walk around the castle walls, ...all of this and much more belong to Křivoklát, a national cultural monument. It would be our pleasure to tell you some of the castle legends while observing the lush countryside from the bus window.

**19:00 – 22:00** *Dinner in the Břevnov monastery.*

We have to disappoint those, who would expect the Spartan monks' food. You are welcomed to dine in the breathtaking atmosphere of the oldest Prague monastery dated to the 10th century.

### **Thursday, 22 July**

16:15 *Short farewell*

...as a sweet cherry on the Conference cake.

After the last lecture, all participants are invited to a farewell drink in the entrance hall of the Institute.

## TRANSPORT

### Public transport

In Prague, an integrated transport system (underground Metro, trams, and buses) operates without conductors. Tickets must be purchased in advance and stamped inside tram or bus, or before passing the gates of the Metro.

Metro stations are equipped with ticket machines. Tickets for 18 CZK for a single 20-min journey by tram or bus, or five-stop journey by Metro as well as transfer tickets for 26 CZK for a 75-min journey by all means of transport and 24-hour network ticket for 100 CZK are on sale at the airport, at railway stations, newspaper stands and tobacco shops, at hotel reception desks, etc. The Metro runs from 05:00 till midnight.

### Taxi

The fare is 28 CZK (maximum) per kilometre and 40 CZK (maximum) is the boarding fee within the city boundaries (2010 prices). We recommend checking the fare before entering a taxi.

### Air and railway transport

The international airport Praha is situated about 20 km from the city centre (9 km from the Institute). To reach the airport, we recommend bus No. 179 from the Institute, bus No. 119 for connection from the “Dejvická” Metro station (line A).

Express bus line AE connects the airport with the Metro station “Dejvická” and “Nádraží Holešovice” (railway station) in 30-min intervals. Bus fare: 50 CZK (30 CZK from Dejvická).

Buses operated by the CEDAZ Co. run to the airport from the city terminal near the Metro station “Náměstí Republiky” (line B) in 30-min intervals. Bus fare: 120 CZK.

International trains arrive at and leave from the following stations: Praha, Hlavní nádraží (Main Station; Metro line C), Praha – Holešovice (Metro line C, “Nádraží Holešovice”), and Praha – Smíchov (Metro line B, “Smíchovské nádraží”).

# CONFERENCE SCHEDULE

## SUNDAY, 18 JULY

16:00 – 19:00 On-site registration, wine and cheese

## MONDAY, 19 JULY

09:00-16:00	Registration (continued)	
09:00-09:30	<i>OPENING CEREMONY</i>	
09:30-10:10	V. Percec	KL 01
10:10-10:35	A. Debuigne	SL 01
10:35-10:55	<i>Coffee break</i>	
10:55-11:20	A.V. Yakimanskiy	SL 02
11:20-11:45	G. Volet	SL 03
11:45-12:10	Š. Chmela	SL 04
12:10-14:00	<i>Lunch</i>	
14:00-14:40	M. Sawamoto	KL 02
14:40-15:05	S. Bulgakova	SL 05
15:05-15:30	M.M. Stamenović	SL 06
15:30-15:50	<i>Coffee break</i>	
15:50-16:15	M.Yu. Zaremskiy	SL 07
16:15-16:40	C. Rodríguez-Emmenegger	SL 08
16:40-17:05	V. Choudhary	SL 28
17:05-18:30	POSTER SESSION I	
19:30-21:30	<i>WELCOME RECEPTION</i>	

## TUESDAY, JULY 20

09:00-09:40	C. Barner-Kowollik	KL 03
09:40-10:05	A. Filippov	SL 09
10:05-10:30	Y.-Z. Wang	SL 10
10:30-10:50	<i>Coffee break</i>	
10:50-11:15	J. Vohlídal	SL 11
11:15-11:40	T. Higashihara	SL 12
11:40-12:05	J. Morgado	SL 13
12:05-14:00	<i>Lunch</i>	
14:00-14:40	Y. Tezuka	KL 04
14:40-15:05	A. Kadashchuk	SL 14
15:05-15:30	V. Cimrová	SL 15
15:30-15:50	<i>Coffee break</i>	
15:50-16:15	V. Konsulov	SL 16
16:15-16:40	M. Kozłowski	SL 17
16:40-18:20	POSTER SESSION II	

## WEDNESDAY, JULY 21

09:00-09:40	L.R. Sita	KL 05
09:40-10:05	J. Merna	SL 18
10:05-10:30	M. Johannsen	SL 19
10:30-10:50	<i>Coffee break</i>	
10:50-11:15	M. Špírková	SL 20
11:15-11:40	P.S. Vlasov	SL 21
11:40-13:30	<i>Lunch</i>	
13:30-22:00	Excursion with conference dinner	

## THURSDAY, JULY 22

09:00-09:40	R.P. Quirk	KL 06
09:40-10:05	Y. Li	SL 22
10:05-10:30	S. Pispas	SL 23
10:30-10:50	<i>Coffee break</i>	
10:50-11:15	S.V. Kostjuk	SL 24
11:15-11:40	S. Carlotti	SL 25
11:40-14:00	<i>Lunch</i>	
14:00-14:40	Y. Yagci	KL 07
14:40-15:05	R. Arun-Prasath	SL 26
15:05-15:30	A. Groeschel	SL 27
15:30-16:00	<i>CLOSING CEREMONY</i>	
16:00	<i>Farewell drink - complimentary for all participants</i>	

## KEYNOTE LECTURES

- KL 01     **V. Percec** (*U.S.A.*)  
Self-controlled supramolecular and living radical polymerizations
- KL 02     **M. Sawamoto** (*Japan*)  
Transition metal-catalyzed living radical polymerization: Precision functional polymers via designed catalysts
- KL 03     **Ch. Barner-Kowollik**, A. Inglis, T. Junkers, L. Nebhani, E.H.H. Wong, L. Barner, T. Paulöhrl (*Germany*)  
High efficiency approaches to polymer ligation and characterization
- KL 04     **Y. Tezuka** (*Japan*)  
Topological polymer chemistry: a cyclic approach for unusual functions in polymer materials
- KL 05     **L.R. Sita** (*U.S.A.*)  
Practical production of tailored-made precision polyolefins
- KL 06     **R.P. Quirk** (*U.S.A.*)  
Anionic synthesis of well-defined, chain-end and in-chain functionalized polymers
- KL 07     **Y. Yagci** (*Turkey*)  
Photochemical methods for the preparation of nano and complex macromolecular structures

## SPECIAL LECTURES

- SL 01 **A. Debuigne**, M. Hurtgen, Ch. Jérôme, Ch. Detrembleur (*Belgium*)  
Design of polymers by cobalt-mediated radical polymerization and coupling reaction
- SL 02 **A.V. Yakimanskiy**, T.K. Meleshko, D.M. Ilgach, N.N. Bogorad, N.I. Gorshkov, I.I. Malakhova, V.D. Krasikov, M.A. Simonova, A.P. Filippov (*Russian Federation*)  
Synthesis and molecular characteristics of regularly grafted copolymers with polyimide backbone and polymethacrylic side chains
- SL 03 **G. Volet**, L. Marx, C. Amiel (*France*)  
Synthesis of macroinitiator of poly(2-methyl-2-oxazoline) for nitroxide-mediated radical polymerization
- SL 04 **Š. Chmela**, J. Kollár, Ľ. Hrkčková (*Slovakia*)  
"Livingness" at nitroxide mediated free radical polymerization
- SL 05 **S. Bulgakova**, E. Tumakova, A. Zhizhikina, Yu. Semchikov (*Russian Federation*)  
Features of controlled polymerization of vinyl monomers in the presence of initiation system AIBN/FeCl<sub>3</sub>
- SL 06 **M.M. Stamenović**, P. Espeel, J. Garreoet, W. Van Camp, F.E. Du Prez (*Belgium*)  
RAFT and thiol-ene chemistry toward functional polymers
- SL 07 **M.Yu. Zaremskiy**, Ch. Xin, A.P. Orlova, M.I. Shtilman, V.B. Golubev: (*Russian Federation*)  
The kinetic features of nitroxide-mediated living radical polymerization
- SL 08 **C. Rodríguez-Emmenegger**, E. Brynda, A. Bologna Alles (*Czech Republic*)  
Synthesis of ultra-low fouling surfaces by surface initiated atom transfer radical polymerization
- SL 09 **A. Filippov**, E. Chernikova, V. Golubev (*Russian Federation*)  
Investigation of elementary steps of RAFT polymerization using spin trap technique
- SL 10 **Y.-Z. Wang, F. Lu** (*People's Republic of China*)  
Biodegradable microspheres prepared from polysaccharides-graft-poly(*p*-dioxanone) copolymers
- SL 11 **J. Vohlídal**, D. Bondarev, R. Sivkova, J. Zedník, J. Sedláček (*Czech Republic*)  
Tuning the structure and properties of conjugated polymers: Polyfluorenes, polythiophenes and polyacetylenes
- SL 12 **T. Higashihara**, A. Hirao, M. Ueda (*Japan*)  
New block copolymers containing poly(3-hexylthiophene) segments

- SL 13 **J. Morgado**, J. Farinhas, A. Charas, O. Fenwick, F. Cacialli, L. Alcácer (*Portugal*)  
Conjugated luminescent polymers bearing cross-linkable oxetane side groups as versatile materials for organic optoelectronics
- SL 14 **A. Kadashchuk**, S. Schols, P. Heremans (*Ukraine*)  
Triplet exciton dynamics and charge-carrier trapping in triplet-emitter containing conjugated polymers
- SL 15 **V. Cimrová**, I. Kmínek, P. Pavlačková, D. Výprachtický (*Czech Republic*)  
Novel low-band gap donor-acceptor copolymers for photovoltaics
- SL 16 **V. Konsulov**, Tz. Godjevargova, Z. Grozeva, J. Tacheva, P. Saha (*Bulgaria*)  
Functional copolymers of 2-hydroxyethylmethacrylate with *N,N*-dimethylaminoethylmethacrylate
- SL 17 **M. Kozłowski**, A. Kozłowska, S. Frackowiak, M. Rudowski (*Poland*)  
Foaming of polymers and polymer composites
- SL 18 J. Peleška, Z. Hošťálek, **J. Merna** (*Czech Republic*)  
Living/controlled olefin polymerizations initiated by nickel diimine complexes
- SL 19 **M. Johannsen**, U. Schulze, D. Jehnichen, L. Häussler, H. Komber, B. Voit (*Germany*)  
Poly(10-undecene-1-ol) - Synthesis and characterization
- SL 20 R. Poręba, **M. Špírková**, A. Strachota (*Czech Republic*)  
Mechanical and surface properties of polycarbonate-based polyurethane elastomers
- SL 21 **P.S. Vlasov**, O.A. Shishkan, N.S. Domnina, Z. Sedláková, E. Brynda (*Russian Federation*)  
Functionalized derivatives of poly(diallyldimethylammonium chloride)
- SL 22 Y. Wang, H. Zhang, H. Ma, Ch. Zhang, Y. Hu, Z. Li, Z. Zhao, Y. Wang, **Y. Li** (*People's Republic of China*)  
Synthesis of novel styrene/butadiene copolymer resin based on anionic polymerization
- SL 23 J. Zhao, G. Mountrichas, G. Zhang, **S. Pispas** (*Greece*)  
Amphiphilic graft copolymers via a combination of conventional and metal-free anionic polymerization
- SL 24 **S.V. Kostjuk**, F. Ganachaud (*Belarus*)  
Controlled cationic polymerization at elevated temperatures using  $B(C_6F_5)_3$  as co-initiator
- SL 25 **S. Carlotti**, A.L. Brocas, A. Deffieux, M. Gervais, G. Cendejas (*France*)  
Controlled syntheses of hydrophilic and hydrophobic polyethers by mono-mer activation and their direct alpha-azido functionalization



- SL 26 **R.A. Prasath**, M.T. Gokmen, F.E. Du Prez (*Belgium*)  
A microfluidic 'thio-click' approach towards functional/clickable and degradable polymer beads
- SL 27 **A. Groeschel**, S. Tea, A.H.E. Mueller (*Germany*)  
Multicompartment caterpillar micelles from linear triblock terpolymers
- SL 28 D. Gupta, **V. Choudhary** (*India*)  
Studies on SPEEK-Poly (amide-imide) polymer blend membranes for fuel cell applications

## SESSION TIMETABLE

### MONDAY, 19 July

09:00 OPENING

Opening addresses

F. RYPÁČEK

Director of the Institute of Macromolecular Chemistry

M. SAWAMOTO

Representant of the IUPAC

P. VLČEK

Conference chairman

#### LECTURE SESSION 1

Chairpersons: M.Y. Zaremskiy (*Russian Federation*)  
D. Výprachtický (*Czech Republic*)

09:30 **KL 01 V. Percec** (*U.S.A.*)

Self-controlled supramolecular and living radical polymerizations

10:10 **SL 01 A. Debuigne**, M. Hurtgen, Ch. Jérôme, Ch. Detrembleur (*Belgium*)

Design of polymers by cobalt-mediated radical polymerization and coupling reaction

**10:35 - 10:55** *Coffee break*

10:55 **SL 02 A.V. Yakimanskiy**, T.K. Meleshko, D.M. Ilgach, N.N. Bogorad, N.I. Gorshkov, I.I. Malakhova, V.D. Krasikov, M.A. Simonova, A.P. Filippov (*Russian Federation*)

Synthesis and molecular characteristics of regularly grafted copolymers with polyimide backbone and polymethacrylic side chains

11:20 **SL 03 G. Volet**, L. Marx, C. Amiel (*France*)

Synthesis of macroinitiator of poly(2-methyl-2-oxazoline) for nitroxide-mediated radical polymerization

11:45 **SL 04 Š. Chmela**, J. Kollár, L. Hrčková (*Slovakia*)

"Livingness" at nitroxide mediated free radical polymerization

**12:10 – 14:00** *Lunch*

## LECTURE SESSION 2

Chairpersons: Y. Yagci (*Turkey*)  
L. Matějka (*Czech Republic*)

- 14:00 **KL 02 M. Sawamoto** (*Japan*)  
Transition metal-catalyzed living radical polymerization: Precision functional polymers via designed catalysts
- 14:40 **SL 05 S. Bulgakova**, E. Tumakova, A. Zhizhikina, Yu. Semchikov (*Russian Federation*)  
Features of controlled polymerization of vinyl monomers in the presence of initiation system AIBN/FeCl<sub>3</sub>
- 15:05 **SL 06 M.M. Stamenović**, P. Espeel, J. Garrevoet, W. Van Camp, F.E. Du Prez (*Belgium*)  
RAFT and thiol-ene chemistry toward functional polymers

**15:30 – 15:50** *Coffee break*

## LECTURE SESSION 3

Chairpersons: A.V. Yakimanskiy (*Russian Federation*)  
E. Brynda (*Czech Republic*)

- 15:50 **SL 07 M.Yu. Zaremskiy**, Ch. Xin, A.P. Orlova, M.I. Shtilman, V.B. Golubev (*Russian Federation*)  
The kinetic features of nitroxide-mediated living radical polymerization
- 16:15 **SL 08 C. Rodríguez-Emmenegger**, E. Brynda, A. Bologna Alles (*Czech Republic*)  
Synthesis of ultra-low fouling surfaces by surface initiated atom transfer radical polymerization
- 16:40 **SL 28** D. Gupta, **V. Choudhary** (*India*)  
Studies on SPEEK-Poly (amide-imide) polymer blend membranes for fuel cell applications
- 17:05 – 18:30 **POSTER SESSION I** (PC 01 – PC 26)
- 19:30 – 21:30 **WELCOME RECEPTION**

## TUESDAY, 20 July

### LECTURE SESSION 4

Chairpersons: M.M Stamenović (*Belgium*)  
D. Horák (*Czech Republic*)

- 09:00 **KL 03 Ch. Barner-Kowollik**, A. Inglis, T. Junkers, L. Nebhani, E.H.H. Wong, L. Barner, T. Paulöhrhrl (*Germany*)  
High efficiency approaches to polymer ligation and characterization
- 09:40 **SL 09 A. Filippov**, E. Chernikova, V. Golubev (*Russian Federation*)  
Investigation of elementary steps of RAFT polymerization using spin trap technique
- 10:05 **SL 10 Y.-Z. Wang**, F. Lu (*People's Republic of China*)  
Biodegradable microspheres prepared from polysaccharides-graft-poly(*p*-dioxanone) copolymers

**10:30 - 10:50** *Coffee break*

### LECTURE SESSION 5

Chairpersons: A. Kadashchuk (*Ukraine*)  
V. Cimrová (*Czech Republic*)

- 10:50 **SL 11 J. Vohlídal**, D. Bondarev, R. Sivkova, J. Zedník, J. Sedláček (*Czech Republic*)  
Tuning the structure and properties of conjugated polymers: Polyfluorenes, polythiophenes and polyacetylenes
- 11:15 **SL 12 T. Higashihara**, A. Hirao, M. Ueda (*Japan*)  
New block copolymers containing poly(3-hexylthiophene) segments
- 11:40 **SL 13 J. Morgado**, J. Farinhas, A. Charas, O. Fenwick, F. Cacialli, L. Alcácer (*Portugal*)  
Conjugated luminescent polymers bearing cross-linkable oxetane side groups as versatile materials for organic optoelectronics

**12:05 - 14:00** *Lunch*

### LECTURE SESSION 6

Chairpersons: J. Morgado (*Portugal*)  
J. Vohlídal (*Czech Republic*)

- 14:00 **KL 04 Y. Tezuka** (*Japan*)  
Topological polymer chemistry: a cyclic approach for unusual functions in polymer materials
- 14:40 **SL 14 A. Kadashchuk**, S. Schols, P. Heremans (*Ukraine*)  
Triplet exciton dynamics and charge-carrier trapping in triplet-emitter containing conjugated polymers

15:05 **SL 15 V. Cimrová**, I. Kmínek, P. Pavlačková, D. Výprachtický  
(Czech Republic)  
Novel low-band gap donor-acceptor copolymers for photovoltaics

**15:30 – 15:50** *Coffee break*

**LECTURE SESSION 7**

Chairpersons: R. Arun Prasath (Belgium)  
J. Merna (Czech Republic)

15:50 **SL 16 V. Konsulov**, Tz. Godjevargova, Z. Grozeva, J. Tacheva, P. Saha (Bulgaria)  
Functional copolymers of 2-hydroxyethylmethacrylate with *N,N*-dimethylamino-ethylmethacrylate

16:15 **SL 17 M. Kozłowski**, A. Kozłowska, S. Frackowiak, M. Rudowski (Poland)  
Foaming of polymers and polymer composites

16:40 – 18:20 **POSTER SESSION II** (PC 27 – PC 48)

## WEDNESDAY, 21 July

### LECTURE SESSION 8

Chairpersons: R.P. Quirk (*U.S.A.*)  
M. Janata (*Czech Republic*)

- 09:00 **KL 05 L.R. Sita** (*U.S.A.*)  
Practical production of tailored-made precision polyolefins
- 09:40 **SL 18** J. Peleška, Z. Hošťálek, **J. Merna** (*Czech Republic*)  
Living/controlled olefin polymerizations initiated by nickel diimine complexes
- 10:05 **SL 19 M. Johansen**, U. Schulze, D. Jehnichen, L. Häussler, H. Komber, B. Voit (*Germany*)  
Poly(10-undecene-1-ol) - Synthesis and characterization

**10:30 - 10:50** *Coffee break*

### LECTURE SESSION 9

Chairpersons: S. Carloti (*France*)  
J. Horský (*Czech Republic*)

- 10:50 **SL 20** R. Poręba, **M. Špírková**, A. Strachota (*Czech Republic*)  
Mechanical and surface properties of polycarbonate-based polyurethane elastomers
- 11:15 **SL 21 P.S. Vlasov**, O.A. Shishkan, N.S. Domnina, Z. Sedláková, E. Brynda (*Russian Federation*)  
Functionalized derivatives of poly(diallyldimethylammonium chloride)

**11:40 - 13:30** *Lunch*

13:30 - 22:00 **Excursion with conference dinner**

## THURSDAY, 22 July

### LECTURE SESSION 10

Chairpersons: J.P. Vairon (*France*)  
P. Vlček (*Czech Republic*)

- 09:00 **KL 06 R.P. Quirk** (*U.S.A.*)  
Anionic synthesis of well-defined, chain-end and in-chain functionalized polymers
- 09:40 **SL 22** Y. Wang, H. Zhang, H. Ma, Ch. Zhang, Y. Hu, Z. Li, Z. Zhao, Y. Wang, **Y. Li** (*People's Republic of China*)  
Synthesis of novel styrene/butadiene copolymer resin based on anionic polymerization
- 10:05 **SL 23** J. Zhao, G. Mountrichas, G. Zhang, **S. Pispas** (*Greece*)  
Amphiphilic graft copolymers via a combination of conventional and metal-free anionic polymerization

### 10:30 - 10:50 Coffee break

### LECTURE SESSION 11

Chairpersons: Š. Chmela (*Slovak Republic*)  
M. Špírková (*Czech Republic*)

- 10:50 **SL 24 S.V. Kostjuk**, F. Ganachaud (*Belarus*)  
Controlled cationic polymerization at elevated temperatures using  $B(C_6F_5)_3$  as co-initiator
- 11:15 **SL 25 S. Carlotti**, A.L. Brocas, A. Deffieux, M. Gervais, G. Cendejas (*France*)  
Controlled syntheses of hydrophilic and hydrophobic polyethers by monomer activation and their direct alpha-azido functionalization

### 11:40 – 14:00 Lunch

### LECTURE SESSION 12

Chairpersons: M. Johannsen (*Germany*)  
Z. Sedláková (*Czech Republic*)

- 14:00 **KL 07 Y. Yagci** (*Turkey*)  
Photochemical methods for the preparation nano and complex macromolecular structures
- 14:40 **SL 26 R.A. Prasath**, M.T. Gokmen, F.E. Du Prez (*Belgium*)  
A microfluidic 'thio-click' approach towards functional/clickable and degradable polymer beads
- 15:05 **SL 27 A. Groeschel**, S. Tea, A.H.E. Mueller (*Germany*)  
Multicompartment caterpillar micelles from linear triblock terpolymers
- 15:30 CLOSING CEREMONY
- 16:00 **Farewell drink** – complimentary for all participants

## POSTER COMMUNICATIONS

- PC 01 S. Bednarz, M. Lukasiewicz, A. Ptaszek, P. Ptaszek, I. Raciborski, M. Grzesik, A. Bednarz  
Template-synthesized polyaniline with polysaccharides as templates
- PC 02 P. Bober, M. Trchová, J. Stejskal, J. Prokeš  
Conducting polyaniline–montmorillonite composites
- PC 03 D. Bondarev, J. Zedník, J. Vohlídal  
New conjugated ionic polymers with potential applications in optoelectronic devices – synthesis and characterization
- PC 04 S. Bulgakova, M. Johns, I. Kazantzeva  
Effects of structure and composition of the polymer matrix on the morphology and electro-optical properties of liquid crystal polymer composites
- PC 05 AL. Brocas, A. Deffieux, G. Cendejas, S. Carlotti  
Bio-based functional polyethers: application to polyurethanes and epoxy resins materials
- PC 06 J. Czernek  
The theoretical description of supramolecular structures formed by poly(vinyldiaminotriazine) and nucleic acid bases
- PC 07 M. Degli Esposti, M. Toselli, F. Pilati, M. Bondi, R. Iseppi  
Photocured thymol-based coatings for bioactive food packaging
- PC 08 K. Depa, A. Strachota, M. Šlouf  
Fast thermoresponsive poly(*N*-isopropylacrylamide) based hydrogel nanocomposites with improved mechanical properties for potential use in mechanical actuators
- PC 09 M. Exnerová, Z. Rozlívková, M. Trchová, J. Stejskal  
The carbonization of a conducting polymer, polyaniline, to nitrogen-containing analogues
- PC 10 P. Fabbri, F. Pilati, L. Rovati, J. Mijovic  
PEO-silica hybrids entrapping pH sensitive dyes: Molecular dynamics and optical response
- PC 11 A. Favier, B. Luneau, J. Vinas, N. Laïssaoui, D. Gigmes, D. Bertin  
The esara process: Combining nitroxide-mediated and RAFT controlled radical polymerization techniques
- PC 12 N. Domnina, S. Filippov, R. Khrustaleva, O. Sergeeva, E. Komarova, A. Lezov  
Hybrid macromolecular antioxidants: Synthesis, properties and application in medicine



- PC 13 V. Kolesov, Z. Walterová, J. Horský  
Quantification in MALDI-TOF MS of modified polymers
- PC 14 K.H. Chae, H.I. Cho  
Photo-crosslinking and negative-type micropattern formation of a polymeric photobase generator containing phthalimido carbamate groups
- PC 15 I.I. Fishchuk, A.K. Kadashchuk, H. Sitter, N.S. Sariciftci  
Towards understanding of temperature dependent charge transport in polymer field-effect transistors
- PC 16 J. Kronek, J. Lustoň, Z. Kroneková, N. Petrenčíková, E. Paulovičová, L. Paulovičová, P. Farkaš, J. Korcová  
Biocompatible poly(2-oxazolines) for biomedical application
- PC 17 M. Kubiszyn, J. Pleštil, L. Matějka  
Epoxy-silica nanostructured polymers
- PC 18 A. Mochalova, I. Bodrikov, L. Smirnova, P. Tatarinov  
Polyfunctionality copolymers of chitosan with acrylamide as flocculants, coagulants and sorbents
- PC 19 M.R. Nabid, S.J. Tabatabaei Rezaei, M. Abedi  
Controlled synthesis of thermo-responsive amphiphilic  $A_2B_2$  miktoarm star block copolymer by combination of ATRP and ring opening polymerization
- PC 20 T. Oishi, M. Azechi, N. Toyota, K. Yamabuki, K. Onimura  
Asymmetric polymerization of *N*-substituted maleimide with rhodium catalyst-chiral amine complex
- PC 21 M. Perchacz, A. Strachota, L. Starovoytova, B. Mossety-Leszczak  
Epoxy resins with nanostructured reinforcements – inorganic as well as organic
- PC 22 L. Petton, F.E. Du Prez  
NMP-design and characterisation of comb-shaped copolymers
- PC 23 L. Poláková, Z. Sedláková, P. Látalová  
Synthesis and characterization of linear polyurethanes with mesogens in side chains
- PC 24 L. Rajabi, A.A. Derakhshan, S. Ghorabi  
Room temperature synthesis of boehmite and crystallization of nanoparticles: Effect of concentration and ultrasound
- PC 25 C. Rodríguez-Emmenegger, O. Avramenko, E. Brynda, A. Bologna Alles  
The application of polymer brushes prepared by atom transfer radical polymerization for fabrication of biosensors detecting food borne pathogens

- PC 26 Z. Rozlívková, M. Exnerová, M. Trchová, J. Stejskal  
Evolution of the molecular structure of polyaniline base during carbonization in inert atmosphere
- PC 27 D. Výprachtický, V. Cimrová, I. Kmínek, P. Pavlačková  
Synthesis of conjugated carbazole-thienothiadiazole copolymer for organic solar cells
- PC 28 V. Raus, P. Látalová, A. Šturcová, J. Dybal, J. Kříž, J. Svobodová, P. Vlček  
Graft copolymers of cellulose with controlled architecture prepared in homogeneous phase
- PC 29 Á. Szabó, B. Iván  
Synthesis of poly[poly(ethylene oxide) methacrylate]-poly(isobutylene) block copolymers
- PC 30 Yu.A. Piskun, I.V. Vasilenko, S.V. Kostjuk, K.V. Zaitsev  
Synthesis of well-defined poly- $\epsilon$ -caprolactone, poly-D,L-lactide and their copolymers using titanium complexes of dialkanolamine ligands
- PC 31 D. Bondarev, J. Zedník, J. Vohlídal  
Conjugated copolymers based on thiophene units carrying oxadiazole and triazole pendant groups
- PC 32 L. Rajabi, N. Rezai, S. Kaihani, A.R. Kurdian  
Cure behavior of epoxy/ TiO<sub>2</sub> nanocomposites
- PC 33 O. Borisova, L. Billon, M. Zaremskiy, O. Borisov, B. Grassl  
Block-gradient copolymers of styrene and acrylic acid synthesized by nitroxide-mediated radical polymerization.
- PC 34 C. Rodríguez-Emmenegger, O. Kylián, M. Houska, E. Brynda, J. Kousal, A. Bologna Alles, H. Biederman  
Growth of antifouling polymer brushes at any substrate
- PC 35 M. Lukaszewicz, S. Bednarz  
New route for biopolymer functionalisation. Lipase biocatalysis in fatty acid starch esters preparation.
- PC 36 M.R. Nabid, S.J. Tabatabaei Rezaei, S.Z. Hosseini  
Synthesis of conducting polymer supported zinc oxide (ZnO) nanoparticles in aqueous medium and catalytic activity towards Friedel–Crafts acylation reaction
- PC 37 H. Valentová, Z. Sedláková, J. Pleštil, M. Neubert, J. Nedbal  
Thermal and relaxation behaviour of nanostructured organic-inorganic hybrid materials

- PC 38 D.I. Kalugin, M.Yu. Zaremskiy, V.B. Golubev, E.S. Garina, C.Yu. Erdyakov, T.E. Grokhovskaya  
Synthesis of styrene–alkylacrylates gradient copolymer using TEMPO-mediated polymerization
- PC 39 G. Tabak, D. Kada  
Synthesis of biopolymers containing  $\alpha$ -aminoacids
- PC 40 V. Konsulov, A. Lyapova, G. Petrov, P. Saha  
Synthesis of alternating copolymers of the vinylbutyl ether, containing stable nitroxide radicals
- PC 41 M.R. Nabid, S.J. Tabatabaei Rezaei, M. Abedi, N. Mousavi Rad  
Synthesis of polyaniline supported copper oxide (CuO) nanoparticles and catalytic activity towards aza- Michael reaction
- PC 42 Ch. Mantzaridis, S. Pispas  
Poly[(sulfamate/carboxylate)isoprene-*b*-2-vinyl pyridine] block polyampholytes: Synthesis and solution self-assembly
- PC 43 L. Smirnova, A. Mochalova, V. Smirnov  
Biodegradable materials based on graft and block copolymers of chitosan and synthetic polymers: Synthesis, properties and mechanism of degradation
- PC 44 E.V. Salomatina, A.P. Aleksandrov, A. Afanasiev, N.M. Bityurin, T.A. Gracheva, A.V. Markin, A.E. Mochalova, L.A. Smirnova  
Preparation and properties of hybrid organic-inorganic poly- TiO<sub>2</sub> based composites
- PC 45 M. Ghaemy, S.M. Amini Nasab  
Synthesis and identification of organosoluble and thermally stable polyamides and polyimides bearing a triaryl imidazole pendant: Photophysical, chemiluminescent and electrochemical characterization with a modified carbon nanotube electrode
- PC 46 M. Chobit, V. Tokarev, S. Voronov  
Functionalization of natural fibers using graft-polymerization technique
- PC 47 R. Abdelkader, A. Harrane, M. Belbachir  
Process for preparation of conducting polyaniline with low molecular weight used in fabrication of membrane anti-inflammatory
- PC 48 S. Zaitsev, Yu. Semchikov, L. Kurushina, A. Markin  
Radical copolymerization of styrene and 2-ethoxyethyl methacrylate by reversible addition-fragmentation chain transfer polymerization