

EUROPOLYMER CONFERENCE 2013 (EUPOC 2013)
Gargnano (Italy) - 1–5 September, 2013
POLYMERS & IONIC LIQUIDS

EPF Advisory Board

A.-C. Albertsson (Sweden)	L. Kleintjens (NL)
H. Berghmans (Belgium)	H.-A. Klok (Switzerland)
G. Bogoeva-Gaceva (Macedonia)	A. Krzan (Slovenia, <i>EPF General Secretary</i>)
A. Correia-Diogo (Portugal)	P. Möller-Buschbaum (Germany)
I. Djonlagic (Serbia)	M. Omastova (Slovakia)
A. Duda (Poland)	C. Paulik (Austria)
G. Galli (Italy, <i>EPF Chairman</i>)	F. Rypacek (Czech Republic)
D. Grande (France)	J. San Roman (Spain)
I.W. Hamley (UK)	I. Schopov (Bulgaria)
S. Hvilsted (Denmark)	J. Seppala (Finland)
M. Ivankovic (Croatia)	B. Simionescu (Romania)
R. Jones (UK)	G. Teteris (Latvia)
J. Kallitsis (Greece)	T. Tincer (Turkey)
A.R. Khokhlov (Russia)	A. Vaxman (Israel)
	B. Voit (Germany)

Scientific Committee

Chairs:	Jannick Duchet-Rumeau (INSA de Lyon, Villeurbanne, France) Jean-Francois Gérard (INSA de Lyon, Villeurbanne, France)
Members:	G. Di Silvestro (Italy), P. Dubois (Belgium) G. Galli (Italy), D. Lemordant (France), D. Mecerreyes (Spain)



Secretariat

M.G. Viola
Department of Chemistry & Industrial Chemistry, University of Pisa, 56126 Pisa (Italy)
E-mail: mgv@dcci.unipi.it

Organizing Committee

A. Batistini, D. Macchia, E. Martinelli

Conference Program Overview






Sunday, 1 September, 2013		
17:00–19:30		Registration
20:00		Welcome Party

Monday, 2 September, 2013		
8:00–8:45		Registration
8:45–9:00		Opening
<i>Ionic Liquids: Synthesis and Properties</i> Chair: J.F. Gérard		
9:00–9:30	IL1	J. Duchet-Rumeau
9:30–10:00	IL2	T. Welton
10:00–10:20	OC1	A. Mühlbauer
10:20–10:40	OC2	H. Prydderch
10:40–11:00		Coffee Break
11:00–11:20	OC3	Y. Men
11:20–11:40	OC4	C. Santini
11:40–12:00	OC5	M. Paluch
12:00–12:20	OC6	Z. Wojnarowska
12:20–12:40	OC7	P. Košovan
12:40–14:30		Lunch
14:30–15:30		Poster Session I, P1–P34
<i>Ionic Liquids for Polymer Chemistry</i> Chair: T. Welton		
15:30–16:00	IL3	A. Fradet
16:00–16:30	IL4	T.E. Long
16:30–16:50	OC8	E. Drockenmuller
16:50–17:10	OC9	S. Hvilsted
17:10–17:30		Coffee Break
17:30–17:50	OC10	A. Jonquière
17:50–18:10	OC11	R. Guterman
18:10–18:30	OC12	N. Mama
18:30–19:30		Poster Session I, P1–P34

IL = Invited Lecture (25 min + 5 min discussion)

OC = Oral Communication (15 min + 5 min discussion)







Conference Program Overview (contd.)

Tuesday, 3 September, 2013		
8:30–9:00		Registration
<i>Ionic Liquids for Polymer Chemistry</i> Chair: M.F. Costa-Gomes		
9:00–9:30	IL5	A.S. Shaplov
9:30–10:00	IL6	S. Fantini
10:00–10:20	OC13	V. Strehmel
10:20–10:40	OC14	W.H. Binder
10:40–11:00		<i>Coffee Break</i>
11:00–11:20	OC15	A. Dani
11:20–11:40	OC16	E. Karjalainen
11:40–12:00	OC17	S. Arnaboldi
12:00–12:20	OC18	G. Luna-Barcenas
12:20–12:40		
12:40–14:30		<i>Lunch</i>
<i>Ionic Liquids for Processing Aids</i> Chair: A.S. Shaplov		
14:30–15:00	IL7	K.R. Seddon
15:00–15:30	IL8	M.F. Costa-Gomes
15:30–15:50	OC19	T. Budtova
15:50–16:10	OC20	A. Bendaoud
16:10–16:30		
16:30–17:00		<i>Coffee Break</i>
17:00–17:20	OC21	S. Livi
17:20–17:40	OC22	D. Glas
20:00		<i>Wine & Cheese Party</i>

IL = Invited Lecture (25 min + 5 min discussion)

OC = Oral Communication (15 min + 5 min discussion)




Conference Program Overview (contd.)

Wednesday, 4 September, 2013		
<i>Ionic Liquids for Energy</i>		
Chair: G. Galli		
9:00–9:30	IL9	D. Mecerreyes
9:30–9:50	OC23	J. Le Bideau
9:50–10:10	OC24	M. Maréchal
10:10–10:30	OC25	M. Gouverneur
10:30–11:00		<i>Coffee Break</i>
11:00–11:20	OC26	P. Coupillaud
11:20–11:40	OC27	J.C. Jansen
11:40–12:00	OC28	A. Corres
12:00–12:20	OC29	L.C. Tomé
12:20–12:40		
12:40–14:30		<i>Lunch</i>
14:30–15:30		Poster Session II, P1–P34
<i>Ionic Liquids for High Added Value Materials</i>		
Chair: D. Mecerreyes		
15:30–16:00	IL10	L. Matejka
16:00–16:20	OC30	E. Garcia-Verdugo
16:20–16:40	OC31	C. Jouannin
16:40–17:00	OC32	K. Subramaniam
17:00–17:20		<i>Coffee Break</i>
17:20–18:20		Poster Session II, P1–P34
20:00		<i>Social Dinner</i>

IL = Invited Lecture (25 min + 5 min discussion)

OC = Oral Communication (15 min + 5 min discussion)

Conference Program Overview (contd.)

Thursday, 5 September, 2013		
<i>Ionic Liquids for Energy</i> Chair: J. Duchet-Rumeau		
9:00–9:30	IL11	R. Marcilla
9:30–9:50	OC33	G. Boiteux
9:50–10:10	OC34	A. Podestà
10:10–10:30	OC35	A. Serghei
10:30–11:00		<i>Coffee Break</i>
11:00–11:20	OC36	D. Kuzmich
11:20–11:40	OC37	B. Mandal
11:40–12:00	OC38	F. Yan
12:00–12:20		Closing
12:20–12:40		
12:40–14:30		<i>Lunch</i>

IL = Invited Lecture (25 min + 5 min discussion)

OC = Oral Communication (15 min + 5 min discussion)

Conference Program

Sunday, 1 September, 2013

17:00-19:30 **Registration**

20:00 **Welcome Party**

Monday, 2 September, 2013

08:00-8:45 **Registration**

08:45-09:00 **Opening (G. Galli)**

Session: IONIC LIQUIDS – SYNTHESIS AND PROPERTIES

Chair: J.-F. Gérard

- 09:00-09:30 **IL1** **J. Duchet-Rumeau**, S. Livi, S. Pruvost, J.-F. Gérard
Polymer and ionic liquids: A succeeded wedding
- 09:30-10:00 **IL2** **T. Welton**
Synthesis of ionic liquids
- 10:00-10:20 **OC1** **A. Mühlbauer**, L. Leclercq, B. Estrine, W. Kunz, V. Nardello-Rataj
Quaternary ammonium ionic liquids with biosourced carboxylate anions – synthesis, physicochemistry and biodegradability
- 10:20-10:40 **OC2** **H. Prydderch**, N. Gathergood
Biodegradable and low antimicrobial toxicity ionic liquids
- 10:40-11:00 Coffee Break
- 11:00-11:20 **OC3** **Y. Men**, H. Schlaad, M. Antonietti, J. Yuan
Poly(ionic liquid)s with tunable lower critical solution temperature-type phase transition
- 11:20-11:40 **OC4** H. Srouf, **C. Santini**, H. Rouault
Design of new route to electrolyte based on ionic liquid for lithium ion batteries
- 11:40-12:00 **OC5** **M. Paluch**, Z. Wojnarowska, Y. Wang, A. Sokolov
Pressure induced enhancement of decoupling of electrical conductivity from structural dynamics in protic ionic liquids
- 12:00-12:20 **OC6** **Z. Wojnarowska**, M. Paluch, Y. Wang, A. Sokolov
When does protic ionic liquid become a superionic conductor?

12:20-12:40 **OC7** K. Breitsprecher, **P. Kořovan**, C. Holm
Differential capacitance of ionic-liquid-based capacitors: Asymmetry in valency, size and shape of ions (insights from coarse-grained computer simulations)

12:40-14:30 Lunch

14:30-15:30 **POSTER SESSION I, P1–P34**

Session: IONIC LIQUIDS FOR POLYMER CHEMISTRY

Chair: T. Welton

15:30-16:00 **IL3** **A. Fradet**, S. Zhang, H. Lefebvre, M. Tessier
Synthesis of condensation polymers in ionic liquids

16:00-16:30 **IL4** **T.E. Long**, S.T. Hemp, S. Cheng
Phosphonium cation-containing monomers and polymers: Adding diversity to the ionic liquid tool box

16:30-16:50 **OC8** B. Mudraboyina, I. Allaoua, M. Obadia, R. Sood, J. Bernard, E. Espuche, A. Serghei, **E. Drockenmuller**
Poly(1,2,3-triazolium)s: New generation of polymerized ionic liquid materials

16:50-17:10 **OC9** L. González, A.L. Skov, **S. Hvilsted**
PEG based ionic networks

17:10-17:30 Coffee Break

17:30-17:50 **OC10** S. Kim, C. Arnal-Herault, M. Wang, J. Babin, L. David, **A. Jonquière**
A versatile “clickable” polymer platform for the grafting of ionic liquids onto segmented poly(urethane-imide)s

17:50-18:10 **OC11** **R. Guterman**, M. Hesari, B.M. Berven, E.R. Gillies, M.S. Workentin, P.J. Ragogna
The synthesis and application of phosphonium salts for photopolymeric systems

18:10-18:30 **OC12** N. Wali, **N. Mama**, R. Pfukwa, B. Klumperman
Synthesis of fluorescent polymers with pendant triazole-substituted coumarin side-chains via a combination of click chemistry and RAFT-mediated polymerization

18:30-19:30 **POSTER SESSION I, P1–P34**

Tuesday, 3 September, 2013

08:30-9:00 Registration

Session: IONIC LIQUIDS FOR POLYMER CHEMISTRY

Chair: M.F. Costa-Gomes

- 09:00-09:30 **IL5** **A.S. Shaplov**, E.I. Lozinskaya, F. Vidal, P.S. Vlasov, D.O. Ponkratov, C. Wandrey, Y.S. Vygodski
Synthesis and properties investigations of polymeric ILs
- 09:30-10:00 **IL6** **S. Fantini**
Ionic liquids and polymers: The viewpoint of an SME specialized in ionic liquids production and R&D
- 10:00-10:20 **OC13** **V. Strehmel**, H. Wetzel, A. Laschewsky
Advantages of ionic liquids as solvents in free radical polymerization
- 10:20-10:40 **OC14** **W.H. Binder**, P. Zare, A. Stojanovic
Poly(isobutylene)-based ionic liquids
- 10:40-11:00 Coffee Break
- 11:00-11:20 **OC15** **A. Dani**, E. Groppo, C. Barolo, J.G. Vitillo, S. Bordiga
Synthesis and characterization of poly-RTIL based on divinylbenzene-co-imidazole micro-spheres
- 11:20-11:40 **OC16** **E. Karjalainen**, D.F. Izquierdo, V. Marti, S.V. Luis, H. Tenhu, E. García-Verdugo
Chiral polymeric ionic liquids: Synthesis and application to catalysis
- 11:40-12:00 **OC17** **S. Arnaboldi**, T. Benincori, V. Bonometti, R. Cirilli, L. Dunsch, W. Kutner, G. Longhi, K. Noworyta, P.R. Mussini, M. Panigati, M. Pierini, S. Rizzo, F. Sannicolò
Enantioselective electrodes based on inherently chiral molecular material
- 12:00-12:20 **OC18** J.D. Mota-Morales, M.C. Gutiérrez, M.L. Ferrer, C.A. Martinez-Perez, P.E. García-Casillas, M. Terrones, **G. Luna-Bárceñas**, F. del Monte
Polymerizable deep-eutectic solvents as a green tool for the synthesis of macroporous acrylate-based composites
- 12:40-14:30 Lunch

Session: IONIC LIQUIDS FOR PROCESSING AIDS

Chair: A.S. Shaplov

- 14:30-15:00 **IL7** **K.R. Seddon**
Stability, toxicity and (bio)degradation of ionic liquids
- 15:00-15:30 **IL8** **M.F. Costa-Gomes**, J.-M. Andanson, X. Yao, E. Bordes, A. Dequidt,
A.A.H. Padua
Solvation in ionic liquid media
- 15:30-15:50 **OC19** **T. Budtova**, C. Rudaz, W. Liu
*Ionic liquids: Powerful solvents for processing cellulose and mixing
with other polymers*
- 15:50-16:10 **OC20** **A. Bendaoud**, Y. Chalamet
*Effects of relative humidity and ionic liquids on the water content
and glass transition of plasticized starch*
- 16:30-17:00 Coffee Break
- 17:00-17:20 **OC21** M. Yousfi, **S. Livi**, J. Duchet-Rumeau
*A novel route for the compatibilization of polymer blends using ionic
liquids: Role of the counteranion*
- 17:20-17:40 **OC22** **D. Glas**, J. Hulsbosch, P. Dubois, K. Binnemans, D.E. De Vos
*Dehydrochlorination of poly(vinyl chloride) and chlorinated
polyethylene by phosphonium ionic liquids*
- 20:00 **Wine & Cheese Party**

Wednesday, 4 September, 2013

Session: IONIC LIQUIDS FOR ENERGY

Chair: G. Galli

- 09:00-09:30 **IL9** **D. Mecerreyes**, M. Isik, R. Gracia, A.M. Fernandes, M.A. Abouzadeh
Polymeric ionic liquids: Broadening the properties and applications of polyelectrolytes
- 09:30-09:50 **OC23** A. Guyomard-Lack, P.-E. Delannoy, N. Buchtová, C. Cerclier, **J. Le Bideau**
Ionogels: Enhanced intensive ILs properties at solid interfaces
- 09:50-10:10 **OC24** **M. Maréchal**, A. Martinelli, O. Fontaine, A. Toujine, C. Bonhomme, F. Ribot, B. Joucelme, C. Sanchez, C. Laberty-Robert
Alkylimidazolium-based ionic liquids and iodide conducting electrolytes for solar cells
- 10:10-10:30 **OC25** **M. Gouverneur**, M. Schonhoff
Lithium dynamics in a ternary polymer electrolyte system based on ionic liquids
- 10:30-11:00 Coffee Break
- 11:00-11:20 **OC26** **P. Coupillaud**, D. Mecerreyes, D. Taton
Macromolecular engineering of poly(ionic liquid)s
- 11:20-11:40 **OC27** G. Clarizia, P. Bernardo, K. Friess, P. Izák, **J.C. Jansen**
Polymer-based ionic liquid gel membranes for gas and vapour separation
- 11:40-12:00 **OC28** **A. Corres**, T. Schäfer
Block-copolymer/ionic liquids blend membranes and their performance in vapour separation
- 12:00-12:20 **OC29** **L.C. Tomé**, D.J.S. Patinha, L.P.N. Rebelo, C.S.R. Freire, D. Mecerreyes, I.M. Marrucho
Designing CO₂ separation membranes based on polymeric ionic liquids
- 12:40-14:30 Lunch
- 14:30-15:30 **POSTER SESSION II, P1–P34**

Session: IONIC LIQUIDS FOR HIGH ADDED VALUE MATERIALS

Chair: D. Mecerreyes

- 15:30-16:00 **IL10** **L. Matějka**, R.K. Donato, H.S. Schrekker
Ionic liquids within polymer matrices
- 16:00-16:20 **OC30** **E. Garcia-Verdugo**, R. Porcar, B. Altava, M.I. Burguet, S. Luis
Supported ionic liquid-like phases as a solid ionic solvent for advance catalytic processes
- 16:20-16:40 **OC31** **C. Jouannin**, L. Viau, C. Tourne-Peteilh, J.-M. Devoiselle, A. Vioux
Drug delivery systems based on ionic liquids confined within a poly(lactic acid) matrix
- 16:40-17:00 **OC32** **K. Subramaniam**, A. Das, G. Heinrich
Multifunctional role of ionic liquids in elastomer composites based on carbon nanotubes
- 17:00-17:20 Coffee Break
- 17:20-18:20 **POSTER SESSION II, P1–P34**
- 20:00 **Social Dinner**

Thursday, 5 September, 2013

Session: IONIC LIQUIDS FOR ENERGY

Chair: J. Duchet-Rumeau

- 09:00-09:30 **IL11** **R. Marcilla**
Ionic liquids and polymers for applications in energy production and storage
- 09:30-09:50 **OC33** **G. Boiteux**, A. Laskowska, A. Marzec, M. Zaborski, O. Gain, A. Serghei
Investigations of nitrile rubber composites containing imidazolium ionic liquids
- 09:50-10:10 **OC34** **A. Podestà**, M. Galluzzi, S. Bovio, P. Milani
The solid-like, dielectric behavior of interfacial imidazolium based ionic liquids supported on solid surfaces
- 10:10-10:30 **OC35** V. Levchenko, E. Beyou, G. Boiteux, G. Seytre, **A. Serghei**
Polymeric materials with giant permittivity
- 10:30-11:00 Coffee Break
- 11:00-11:20 **OC36** **D. Kuzmicz**, Y. Men, S. Prescher, M. Antonietti, J. Yuan
Mesoporous poly(ionic liquid) copolymer for microporous, nitrogen-doped carbon
- 11:20-11:40 **OC37** **B. Mandal**, P.K. Ghoshb, D. Das, S. Ghosh, I. Basumallick
Electro-chemical studies on Al-polyaniline rechargeable battery in 1-ethyl-3-methylimidazolium chloride ionic liquid
- 11:40-12:00 **OC38** B. Lin, **F. Yan**
Imidazolium-based ionomer polyelectrolytes for proton- & anion-exchange membrane applications
- 12:00-12:20 **Closing**
- 12:40-14:30 Lunch

Poster Papers P1–P34

Monday, 2 September, 2013
&
Wednesday, 4 September, 2013

- P1** **M.A. Aboudzadeh**, D. Mecerreyes
New ionic supramolecular ionic polymers based on monomers coming from renewable sources
- P2** **R. Bhandary**, M. Schönhoff
Lithium dynamics in gel polyelectrolytes
- P3** M. Iurzhenko, Y. Mamunya, **G. Boiteux**, A. Serghei, O. Sverdlikovska, O. Chervakov, E. Lebedev
Electrophysical behaviour of the electroactive hybrid polymers doped with ionic liquids
- P4** **P.R. Decaen**, G.F. Colomines, D. Lourdin, E.B. Leroy
Low toxicity ionic liquids used as biopolymer multifunctional additives
- P5** D. Zampino, C. Prinzivalli, **R. Di Gesù**, G. Isaia, F. Ieva, D. Carbone, G. Recca, T. Ferreri, C. Puglisi, M. Mancuso, R. Zaccone
Imidazolium ionic liquids as antimicrobial additives of biomedical PVC
- P6** **M. Díaz**, A. Ortiz, I. Ortiz
Ionic liquid-based polymers as potential electrolytes for fuel cell applications
- P7** **D.J. Mohan**, T. Kovářík, J. Kadlec, L. Kullová
Synthesis, characterization and cycloimidization study of poly(amide imide)s based on tri-component component mixture of dianhydrides, diamines and acid chlorides
- P8** **M. Galluzzi**, A. Podestà, D. Piotti, K. Schulte, P. Milani
Interaction of imadazolium-based ionic liquids with single cells and model cell membranes
- P9** **B. Gharib**, I. Niedermaier, F. Maier, H.-P. Steinrück, A. Hirsch
Synthesis and characterization of some novel ferrocene-containing ionic liquids
- P10** T.J. Cuthbert, **R. Guterman**, S. Karamdoust, E.R. Gillies, P.J. Ragogna
Antimicrobial UV-cured phosphonium thin films

- P13 M. Isik**, R. Gracia, L.C. Kollnus, L. Tomé, L.P.N. Rebelo, I. Marrucho, D. Mecerreyes
Cholinium based poly(ionic liquid)s: Synthesis, characterization and utilization as biocompatible ion gels and cellulose composites
- P14 J. Jeong**, H. Lee, J. Won, S.H. Kim, J.M. Ko, Y.M. Lee
Crosslinked solid polymer electrolytes for all-solid lithium secondary batteries
- P15 J. Komasa**, P. Ulanski, J.M. Rosiak
Radiation grafting of thermoswitchable polymers on polypropylene as novel substrates for cell sheet engineering
- P16 A. Laskowska**, A. Marzec, G. Boiteux, M. Zaborski, O. Gain, A. Serghei
Improved ionic conductivity of carboxylated nitrile rubber/LDH composites by adding imidazolium ionic liquids
- P17 A. Guyomard-Lack**, N. Buchtová, B. Humbert, **J. Le Bideau**
Chitosan-based ionogels: In situ chemical crosslinking in ionic liquid media
- P18 M. Leclere**, S. Livi, L. Picard, J. Duchet-Rumeau
Preparation of epoxy-based networks modified with ionic liquids
- P19 S. Livi**, J.-F. Gerard, J. Duchet-Rumeau
Ionic liquids: New additive agents of polymer matrices
- P21 A. Marzec**, A. Laskowska, G. Boiteux, M. Zaborski, O. Gain
Nitrile rubber based composites containing imidazolium ionic liquids
- P22 M. Nowakowska**, S. Zapotoczny, J. Kowal, M. Kopeć, A. Laschewsky, S. Holdcroft
Studies on photoinduced electron transfer in host-guest system: Multilayer films formed from photoactive conjugated anionic polyelectrolyte and amphiphilic cationic copolymer with trapped electron acceptor molecules
- P23 M. Obadia**, B. Mudraboyina, I. Allaoua, R. Sood, E. Espuche, P. Cassagnau, A. Serghei, E. Drockenmuller
Novel approach for the monotopic preparation of 1,2,3-triazolium-based polymerized ionic liquid elastomers
- P24 J. Okerio**, N. Mama, B. Klumperman, R. Pfukwa
Fluorescent polytriazoles with coumarin backbones as potential metal ion chemosensors
- P26 T.K.L. Nuyen**, S. Livi, **S. Pruvost**, B. Guenther Soares, J. Duchet-Rumeau
Epoxy/ionic liquids networks: Mechanical and electrical properties
- P28 R. Sood**, B. Mudraboyina, M. Obadia, A. Serghei, J. Bernard, E. Drockenmuller
New generation 1,2,3-triazolium-based polymeric ionic liquids

- P29 E. Tarasova**, M. Kudrjašova, A. Krumme
Preparation of cellulose mix-esters and cellulose esters/MWCNT composites in ionic liquids
- P30 D.E. Temnov**
Polyelectrolyte model of fibre plastics based on polyethylene and polypropylene
- P31 J. Won**, J. Myuon Ko, Y. Min Lee, S. Hern Kim
A high performance separator assisting gel polymer electrolyte of PEGDMA-silicone oil for lithium ion battery
- P32 Q. Zhao**, S. Soll, D. Kuzmicz, S. Prescher, M. Antonietti, **J. Yuan**
Poly(ionic liquid)s: Pore generation and membrane formation
- P33 A. Serghei**, M Tress, J. Sangoro, F. Kremer
Electrical and dielectric properties of ionic liquids
- P34 V. Levchenko**, E. Beyou, G. Boiteux, G. Seytre, **A. Serghei**
Polymer materials with giant permittivity