

## LECTURE PROGRAM

Page

### Sunday to Monday, September 5-6, 2010

DICP Symposium

### Tuesday, September 7, 2010

08:30 Registration

12:30 Lunch break

Room 1

*Chair: Urs Welz-Biermann, Dalian Institute of Chemical Physics-CAS*

14:00 Opening Session

15:00 PLENARY LECTURE 25

**Ion pairs or ion solvation: Dissolving salts in ionic liquids**

Tom Welton, Imperial College, London/UK

16:00 PLENARY LECTURE 28

**Structure-property Relationship and Applications of Ionic Liquids**

Suojiang Zhang, Institute of Process Engineering CAS, Beijing/China

17:00 PLENARY LECTURE 29

**When is an ionic liquid not an ionic liquid? Ion Association in Protic and Aprotic Ionic Liquids**

Douglas MacFarlane, Monash University, Victoria/AUS

18:00 Welcome Cocktail

### Wednesday, September 8, 2010

Room 1

Session Sepa. \_1

*Chair: Holger Loewe, Johannes Gutenberg University Mainz/Germany*

08:30 INVITED TALK 31

**Exploiting the Versatility of Ionic Liquids in Separation Science**

Jared L. Anderson, The University of Toledo/USA

09:10 **Solvent extraction of lanthanide ions using aprotic imidazolium and pyrrolidinium-based ionic liquids** 41

Huimin Luo and Sheng Dai, Oak Ridge National Laboratory, Oak Ridge/USA

09:35 **The synthesis of ionic liquids green separation materials and application** 42

Ji Chen, Changchun Institute of Applied Chemistry-CAS/China

10:00 Coffee break

Session Sepa. \_2

*Chair: Jared L. Anderson, The University of Toledo/USA*

10:20 **Selective Separation of Biomass components by Anion-Functionalized Ionic Liquids** 74

Airong Xu, Qingtai Chen, Jianji Wang, Henan Normal University/China

10:45 **Thermoregulated ionic liquid-stabilized transition-metal nanoparticles: an efficient and recyclable catalyst for biphasic hydrogenation** 47

Yan Zeng, Yanhua Wang, Jingyang Jiang, Zilin Jin, Dalian University of Technology/China

11:10	<b>Ionic Liquid Extraction of Cu(II) and Fe(III) ions by 1,10-Phenanthroline into a series of Hydrophobic Ionic Liquid and their Behavior of Extraction</b>	48
	<i>Sharifah Mohamad, Nurul Yani Rahim, Yatimah Alias, University of Malaya/ Malaysia</i>	
11:35	<b>Effect of Water and Oxygen on the Desulphurization of Flue Gas by Ionic Liquids</b>	75
	<i>Shuhang Ren, Yucui Hou, Weize Wu, Meijin Jina, Beijing University of Chemical Technology/China</i>	
12:30	Lunch break	
	Session Proc. _1	
	<i>Chair: Axel König, University of Erlangen/Germany</i>	
14:00	INVITED TALK	36
	<b>Flow Chemistry in Confined Space: Alternative Ionic Liquid Syntheses and Applications</b>	
	<i>Holger Loewe, Johannes Gutenberg University Mainz/Germany</i>	
14:40	<b>Supported Ionic Liquid Phase (SILP) Technology – Advanced Materials for Catalysis and Gas Purification</b>	53
	<i>Marco Haumann, Peter Wasserscheid, University of Erlangen-Nuremberg/Germany</i>	
15:05	<b>Continuous gas-phase alkylation with highly active supported ionic liquid phase (SILP) catalysts</b>	76
	<i>Sebastian Willmes, Marco Haumann, Peter Wasserscheid, Stephan J. Aschauer, Andreas Jess, Friedrich-Alexander-Universität Erlangen-Nürnberg/Germany</i>	
15:30	<b>Forward Integration of Ionic Liquids for Process Applications</b>	
	<i>Roland Kalb, Proionic GmbH/Austria</i>	

**Wednesday, September 8, 2010**

Room 2

	Session Struc. _1	
	<i>Chair: Yoshikaya Koga, The University of British Columbia/ Canada</i>	
08:30	INVITED TALK	37
	<b>Happily coupled: an elegant access to vaporization enthalpies of ionic liquids by solution and combustion calorimetry</b>	
	<i>Sergey P. Verevkin, University of Rostock/Germany</i>	
09:05	<b>Thermodynamic study of an unique ionic Liquid, 1-Ethyl-3-methylimidazolium tris(pentafluoroethyl)trifluorophosphate</b>	43
	<i>Zhi-Cheng Tan, Jun-Ning Zhao, Qing-Shan Liu, Li-Xian Sun, Urs Welz-Biermann, Dalian Institute of Chemical Physics-CAS/China</i>	
09:30	<b>Investigation of the Ionic Liquids Structure by Using IR Technique</b>	44
	<i>Haoran Li, Zhejiang University/China</i>	
10:00	Coffee break	
	Session Struc. _2	
	<i>Chair: Sergey P. Verevkin, University of Rostock/Germany</i>	
10:20	INVITED TALK	32
	<b>Thermosolvatochromism and Viscosity of Ionic Liquids and Organic Reactions</b>	
	<i>Anil Kumar, National Chemical Laboratory/India</i>	
11:00	<b>Reaction Kinetics Studies of Solvated Electrons in Ionic Liquids by Pulse Radiolysis</b>	49
	<i>Haiying Fu, Zhaoguo Xing, Wei Huang, Guozhong Wu, Shanghai Institute of Applied Physics-CAS/China</i>	
11:25	<b>delph-IL – the new comprehensive Ionic Liquid property database</b>	77
	<i>Renate Schwiedernoch, Peifang Yan, Lu Feng, Qing-Shan Liu and Urs Welz-Biermann, Novionic Consulting - Data Services/China</i>	
12:30	Lunch break	

Session Struct.\_3

Chair: Anil Kumar, National Chemical Laboratory/India

14:00	<b>Towards Characterization of Ionic Liquid Ions:Hydrophobicity/Hydrophilicity of Normal and Ionic Liquid Ions</b>	54
	<i>Yoshikaya Koga</i> , The University of British Columbia/ Canada	
14:40	<b>Radiation stability and nanoconfinement effect on room temperature ionic liquids</b>	55
	<i>Wu Guozhong</i> , Huang Wei, Chen Shimou, Sha Maolin, Fu Haiying, Shanghai Institute of Applied Physics-CAS/China	
15:05	<b>The molecular characteristics dominating the solubility of gasses in ionic liquids and the gas solubility selectivity</b>	56
	<i>Yu-Feng Hu</i> , China University of Petroleum/China	
15:30	<b>Towards a Molecular Understanding of Ionic Liquid/Solid Interfaces</b>	57
	<i>Florian Maier</i> , Till Cremer, Claudia Kolbeck, Niccola Taccardi, Peter Wasserscheid, Marek Sobota, Mathias Laurin, Jörg Libuda, and Hans-Peter Steinrück, University of Erlangen-Nuremberg/Germany	

**Wednesday, September 8, 2010**

Room 3

Session Sustain.\_1

Chair: Junhua Huang, CSIRO/ Australia

08:30	<b>Hydrolysis of Biomass in Ionic Liquids</b>	45
	<i>Zongbao (Kent) Zhao</i> , Changzhi Li, Zehui Zhang, Qian Wang, Dalian institute of Chemical Physics-CAS/China	
09:10	<b>Reduction of Freely Dissolved Concentration and Toxicity of Imidazolium Ionic Liquids by Dissolved Organic Matter</b>	40
	<i>Jing-fu Liu</i> , Zhen Zhang, Wei-wei Jiang, Wen-ru Luo, Gui-bin Jiang, Research Center for Eco-Environmental Sciences-CAS/China	
09:35	<b>Enhancement of Enzymatic Saccharification by Microwave-assisted Pretreatment of Biomass in Ionic Liquids</b>	46
	<i>Sung Ho Ha</i> , Mai Lan, Yoon-Mo Koo, Inha University/ Korea	
10:00	Coffee break	

Session Synt.\_0

Chair: Marco Haumann, University of Erlangen-Nuremberg/Germany

10:20	<b>Effect of halogen-containing ionic liquids on the enhancement of catalytic activity of Nafion® NR50 in the cellobiose hydrolysis</b>	70
	<i>Dwiatmoko Adid Adep</i> , Jihye Ryu, Jae-Wook Choi, Suh Dong Jin, <i>Suh Young-Woong</i> , Korea Institute of Science and Technology/Korea	
10:45	<b>Ionic Liquid Enhanced Dimerization of Non-polar Alkynes</b>	58
	<i>Changyuan Tao</i> , Zuohua Liu, Jun Du, Xing Fan, Cuicui Xiao, Haining Shen, Chongqing University/China	
11:10	<b>Crystal Growth in Vacuum with Ionic Liquids</b>	59
	<i>Yuji Matsumoto</i> , Shingo Maruyama, Yoko Takeyama and Shun Kato, Tokyo Institute of Technology/Japan	
11:35	<b>Epoxidation of butadiene-1,3 with H<sub>2</sub>O<sub>2</sub> catalyzed by [n-Bu<sub>4</sub>N]<sup>+</sup> or [EMIM]<sup>+</sup> salts of phosphotungstates</b>	60
	<i>Lidia I. Kuznetsova</i> , <i>Nina I. Kuznetsova</i> , Raisa I. Maksimovskaya, Olga S. Koscheeva, Boreskov Institute of Catalysis/ Russia	
16:00	Coffee break	
16:20	Poster Session Part 1 (Poster with even numbers)	
18:30	Dinner	

Thursday, September 9, 2010

Room 1

Session Synt._1		
<i>Chair: Sheng Dai, Oak Ridge National Laboratory/ USA</i>		
08:30	INVITED TALK	35
	<b>Chiral Ammonium and Imidazolium-based Ionic Liquids: Synthesis and Applications for Asymmetric Synthesis and Catalysis</b>	
	<i>Giang Vo-Thanh, University Paris-Sud in Orsay/ France</i>	
09:10	<b>Application of Brønsted Acid Ionic Liquids in Pd-catalyzed Ethylene Alkoxyacylation Reactions</b>	61
	<i>Anders Riisager, Eduardo J. García-Suárez, Jianmin Xiong, Rasmus Fehrmann, Technical University of Denmark/ Denmark</i>	
09:35	<b>Polyether Modified Quarternary Ammonium Salts Ionic Liquids its Application in Thermoregulated Biphasic Complex Catalysis</b>	73
	<i>Dan Wu, Bo Tan, Yonglu Li, Yanhua Wang, Jingyang Jiang, Zilin Jin, Dalian University of Technology/China</i>	
10:00	Coffee break	
Session Synt._2		
<i>Chair: Giang Vo-Thanh, University Paris-Sud in Orsay/ France</i>		
10:20	INVITED TALK	33
	<b>Ionic Liquid Crystallization – Purification and Recycling of spent ILs?</b>	
	<i>Axel König, University of Erlangen/Germany</i>	
11:00	<b>Use of Ionic Liquids for Knoevenagel Condensation Reactions</b>	63
	<i>Xiaomei Hu, Qinguo Zheng, Aston University/UK</i>	
11:25	<b>Highly Efficient Homogeneous Acetylation of Cellulose in 1-Alkyl-3-methylimidazolium Acetate Ionic Liquids at Room Temperature</b>	64
	<i>Jinming Zhang, Shengmei Sang, Jin Wu, Jun Zhang, Institute of Chemistry-CAS/China</i>	
12:30	Lunch break	
Session Young Scientist _Sustain.		
<i>Chair: Changping Li, Dalian Institute of Chemical Physics-CAS/China</i>		
14:00	<b>The development of novel cutinases for biotransformations</b>	118
	<i>Peter James Baker, Richard Gross, and Jin Kim Montclare, NYU/USA</i>	
14:20	<b>Kinetics of Methylcyclohexane Dehydrogenation for On-board Hydrogen Storage and Utilization</b>	84
	<i>Muhammad R. Usman, David L. Cresswell, Arthur A. Garforth, The University of Manchester/UK</i>	
14:40	<b>Unexpected CO<sub>2</sub> Splitting Reactions to Form CO with N-heterocyclic Carbenes as Organocatalysts and Aromatic Aldehydes as Oxygen Acceptors</b>	85
	<i>Liuqun Gu, Yugen Zhang, Institute of Bioengineering and Nanotechnology/ Singapore</i>	
15:00	<b>An Electrohydrodynamics Micropump Design for Microelectronics Cooling</b>	86
	<i>Andrew R.H. Rigit, M.C. Chiong, Universiti Malaysia Sarawak/ Malaysia</i>	
15:20	<b>Effect of the Different Length of TiO<sub>2</sub> Nanorods on the Efficiency of Dye Sensitized Solar Cells</b>	87
	<i>Eun Yi Kim, Chin Myung Whang, Inha University/Korea</i>	
15:40	<b>Effect of Alkyl Substituents in Dialkylimidazolium-based Ionic Liquids on Fructose Dehydration</b>	88
	<i>Jihye Ryu, Young-Woong Suh, Jae-Wook Choi, Dong Jin Suh, Dong June Ahn, Korea Institute of Science and Technology, Korea University/Korea</i>	
16:00	Coffee break	

<b>Session Young Scientist _Sustain.</b>		
<i>Chair: Dawei Fang, Dalian Institute of Chemical Physics-CAS/China</i>		
16:20	<b>Conversion of Cellulose into 5-hydroxymethylfurfural in 1-allyl-3-methylimidazolium Chloride Ionic Liquid</b>	98
	<i>Jian Zhang, Huiquan Li, Yan Cao, b Xinbin Ma, Haitao Liu, Tianjin University/China</i>	
16:40	<b>Microwave-assisted TCE Decomposition by Hydrogen</b>	99
	<i>Lili Ren, Southeast University/China</i>	
17:00	<b>Sustainable Materials from Biomass with Ionic Liquids-Based Environmentally Benign Technologies</b>	100
	<i>Haibo Xie, Zongbao K. Zhao, Dalian Institute of Chemical Physics-CAS/China</i>	
17:20	<b>Practical and mild synthesis of [3,2, A] carbazole, pyrrole and -aminoketone under mild reaction conditions</b>	114
	<i>Najmaddin Azizi, mayam lashkaryzadeh and Mohammad Bolourtchian, Chemistry &amp; Chemical Engineering Research Center of Iran/ Iran</i>	
17:40	<b>Ionic liquid-Assisted Nanodelivery System for Sparingly Soluble Drugs</b>	89
	<i>Muhammad Moniruzzaman, Miki Tamura, Noriho Kamiya, Masahiro Goto, Kyushu University/ Japan</i>	
18:00	<b>From NaHCO<sub>3</sub> into Formic Acid and from Isopropanol into Acetone: Hydrogen-transfer Reduction of NaHCO<sub>3</sub> with Isopropanol in High-temperature Water</b>	119
	<i>Zheng Shen, Fangming Jin, Yalei Zhang, Tongji University/China</i>	

**Thursday, September 9, 2010**

Room 2

<b>Session Elec._1</b>		
<i>Chair: Zhi-Bin Zhou, Huazhong University of Science and Technology/China</i>		
08:30	INVITED TALK	34
	<b>Prospects and Challenges of Ionic Liquids for solar cell and battery applications</b>	
	<i>Frank Endres, Clausthal University of Technology/Germany</i>	
09:10	<b>Electrodeposition of Cobalt from Aqueous Solution and an Ionic Liquid: A Comparative Study</b>	72
	<i>Md. Abu Bin Hasan Susan, Shimul Saha, Saika Ahmed, Ferdousi Begum, M. M. Rahman and M Y. A Mollah, University of Dhaka/Bangladesh</i>	
09:35	<b>Electrodeposition of aluminum from AlCl<sub>3</sub>/[EMIm]Br room temperature ionic liquid</b>	71
	<i>Yu Xianjin, Wang Xiaoming, Zhang Lipeng, Dong Yunhui, Huang ming, Shandong University of Technology/China</i>	
10:00	Coffee break	
<b>Session Elec._2</b>		
<i>Chair: Frank Endres, Clausthal University of Technology/Germany</i>		
10:20	<b>Multi-methoxyethyl Substituted Ammonium Ionic Liquids with Various Perfluorinated Sulfonimides</b>	62
	<i>Kai Liu, Hong-Bo Han, Shao-Wei Feng, Si-Si Zhou, Jin Nie, Hong Li, Xue-Jie Huang, Michel Armand, Zhi-Bin Zhou, Huazhong University of Science and Technology/China</i>	
10:45	<b>Static and Dynamic Electrowetting of Ionic Liquids in Solid/Liquid/Liquid Systems</b>	65
	<i>Rossen Sedev, Mani Paneru, Craig Priest, and John Ralston, University of South Australia/ Australia</i>	
11:10	<b>Electrochemical Impedance Spectroscopy and Electromechanical Behaviours of Bucky-gel Actuators Based on Single-Walled Carbon Nanotubes and Ionic Liquids</b>	66
	<i>Ichiroh Takeuchi, Kinji Asaka, Kenji Kiyohara, Takushi Sugino, Ken Mukai, Hyacinthe Randriamahazaka, Organisation et Dynamique des Systèmes (ITODYS)/France</i>	
11:35	<b>POSS-based ionic liquids as a solid state electrolyte for dye-sensitized solar cells</b>	67
	<i>Ivan Jerman, Marija Čolović, Boris Orel, National institute of Chemistry/ Slovenia</i>	
12:30	Lunch break	

Session Young Scientist _ Sepa./Synt.		
<i>Chair: Xiumei Liu, Dalian Institute of Chemical Physics-CAS/China</i>		
14:00	<b>Application of Ionic Liquids to the Separation of Acetylenes in Olefins</b>	90
	Jelliarko Palgunadi, Jin Hyung Kim, Hoon Sik Kim, and <u>Minserk Cheong</u> , Kyung Hee University/Korea	
14:20	<b>Ionic Liquids Containing Aromatic Ring for Effective Extraction and Enrichment of Long-Chain Polyunsaturated Fatty Acids</b>	91
	<u>Ling-Zhi Cheong</u> , Zhiyong Yang, Zheng Guo, Xuebing Xua, Aarhus University/ Denmark	
14:40	<b>Extraction Mechanism of Cu(II) Ion from Aqueous Solution into Room Temperature Ionic Liquids</b>	111
	<u>Nurul Yani Rahim</u> , Sharifah Mohamad, Yatimah Alias, University of Malaya/ Malaysia	
15:00	<b>Bufferic ionic liquid mediating transesterification by Novozym 435</b>	120
	<u>Jin Chen</u> , Hancheng Zhou, Haiqiang Lin, Youzhu Yuan, Xiamen University/China	
15:20	<b>Zwitterionic Liquid Supported SBA-15: a Multifunctional Heterogeneous Catalyst Material</b>	121
	<u>Feifei Xu</u> , Miao Yang, Xiumei Liu, Peifang Yan, Chang Wang, Urs Welz-Biermann, Dalian Institute of Chemical Physics-CAS/China	
15:40	<b>Purification of Ionic Liquids by Melt Crystallization</b>	110
	<u>Philipp Keil</u> , Jose Sola, Axel König, University of Erlangen/Germany	
16:00	Coffee break	
Session Young Scientist _ Synt.		
<i>Chair: Renate Schwiedernoch, Novionic Consulting</i>		
16:20	<b>Preparation of Ru-[BMIm]BF<sub>4</sub> catalyst for partial hydrogenation of benzene</b>	101
	<u>Yanfei Qin</u> , Wei Xue, Fang Li, Yanji Wang, Xinqiang Zhao, Hebei University of Technology/China	
16:40	<b>Microwave-assisted synthesis of cucurbit[n]uril and novel framework structures in ionic liquids</b>	102
	<u>Li Liu</u> , Xiao Jiang, Jie Zhang, Xiumei Liu, Peipei Li, Xinwen Guo, Urs Welz-Biermann, Dalian Institute of Chemical Physics-CAS/China	
17:00	<b>Efficient conversion of furfuryl alcohol to alkyl lactates using a novel high melt point "ionic liquid" as a solid catalyst</b>	103
	<u>Zehui Zhang</u> , Kun Dong, Zongbao (Kent) Zhao, Dalian institute of Chemical Physics-CAS/China	
17:20	<b>Design of ionic liquid catalysts for process of the coproduction of ethylene glycol and dimethyl carbonate</b>	104
	<u>Weiguo Cheng</u> , Jian Sun, a Jinqun Wang, Suojian Zhang, Institute of Process Engineering-CAS/China	
17:40	<b>Protic ionic liquids: A new class of inhibitor on corrosion of carbon steel in acidic medium</b>	113
	<u>Kiki Adi Kurnia</u> , B. Ariwahjoedi, M.I. Abdul Mutalib, T. Murugesan, Universiti Teknologi PETRONAS/ Malaysia	
18:00	<b>Bis-piperidinium and bis-pyrrolidinium compounds as novel phase-transfer catalysts</b>	112
	<u>Muhammad Jawwad Saif</u> , Jamil Anwar, Munawar Ali Munawar, University of the Punjab/ Pakistan	

Thursday, September 9, 2010

Room 3

Session Young Scientist _Sturc.		
<i>Chair: Li Liu, Dalian Institute of Chemical Physics-CAS/China</i>		
08:30	<b>Synthesis and characterization of inclusion complex of dicationic ionic liquid and <math>\beta</math>-cyclodextrin</b>	115
	<u>Puvaneswary Subramaniam</u> , Sharifah Mohamad and Yatimah Alias, University of Malaya/ Malaysia	
08:50	<b>Desulfurization of oils by oxidation combined with extraction in acidic room temperature ionic liquids</b>	116
	Chi Yansheng, <u>Li Changping</u> , Liu Xiumei, Yan Peifang, Urs Welz Biermann, Dalian University/China	
10:00	Coffee break	
Session Young Scientist _ Elec. / Model.		
<i>Chair: Rile Ge, Dalian Institute of Chemical Physics-CAS/China</i>		
10:20	<b>Ionic Liquids as safe electrolytes for rechargeable Lithium Ion Battery</b>	80
	<u>Bing Li</u> , Michael Schulz, Thomas Hanemann, Thomas Schubert, University of Freiburg/Germany	
10:40	<b>Protic Ionic Liquids and Ionic Melts Prepared from Sulfonic Acids and Heterocyclic Amines as High Temperature PEMFC Electrolytes</b>	81
	<u>Jiangshui Luo</u> , Jin Hu, Gunther Wittstock, Olaf Conrad, EWE-Forschungszentrum für Energietechnologie e.V. (Next Energy)/Germany	
11:00	<b>Electrochemical investigation in CO<sub>2</sub>-IL mixtures: the use of CO<sub>2</sub> as a reagent and a solvent</b>	82
	<u>Sébastien Chanfreau</u> , Liang-Nian He, Bing Yu, Olivier Boutin, Nankai University/China	
11:20	<b>Electroless deposition of superhydrophobic silver coating on copper from choline chloride-based ionic liquid</b>	83
	<u>C. D. Gu</u> , X. J. Xu, J. P. Tu, X. L. Wang, Zhejiang University/China	
11:40	<b>Estimation of Physico-Chemical Properties of glutamic acid Ionic Liquid</b>	117
	<u>Da-Wei FANG</u> , Lu FENG, Zhi-Cheng TAN, Urs Welz-Biermann, Dalian Institute of Physical Chemistry-CAS/China	
12:30	Lunch break	
Session Young Scientist _Struc.		
<i>Chair: Miao Yang, Dalian Institute of Chemical Physics-CAS/China</i>		
14:00	<b>Creating New Environment-Benign Solvents: Enthalpic Assessment Interactions of Ionic Liquids with Molecular Solvents</b>	92
	<u>Geetanjali Singh</u> , Anil Kumara, National Chemical Laboratory/ India	
14:20	<b>Properties of ionic liquid confined in mesoporous silica gel matrix</b>	93
	<u>Manish Pratap Singh</u> , Rajendra Kumar Singh and Suresh Chandra, Banaras Hindu University/ India	
14:40	<b>Analysis of evaporation and thermal decomposition of ionic liquids by thermogravimetry at ambient pressure and UHV</b>	94
	<u>Florian Heym</u> , Bastian M. Etzold, Christoph Kern, Andreas Jess, University Bayreuth/Germany	
15:00	<b>Morphology and phase behavior of ionic liquid in 1D/2D confined space</b>	95
	<u>Shimou Chen</u> , Hisanori Shinohara, Guozhong Wu, Shanghai Institute of Applied Physics-CAS/China	
15:20	<b>Density Functionality Theory study on the structure and properties of [Xmim]PF<sub>6</sub> ionic liquids</b>	96
	<u>Guocai Tian</u> , Jian Li, Yixin Hua, Kunming University of Science and Technology/China	

15:40	<b>Thermal stability of imidazolium ionic liquids used as cellulose solvent</b>	97
	<u>Yan Hao</u> , Jing Peng, Jiuqiang Li, Maolin Zhai, Peking University/China	
16:00	Coffee break	
	Session Young Scientist _ Struc. / Proc. /Sepa.	
	<i>Chair:</i>	
16:20	<b>Towards corrosion protection of magnesium alloys by surface reaction in organophosphate based ionic liquids</b>	105
	<u>Ji Lin</u> , Dr Jiazeng Sun, Dr Patrick Howlett , Prof. Maria Forsyth and Prof. Douglas MacFarlane, Monash University / Australia	
16:40	<b>Nanostructure of Protic Ionic Liquids using SAXS/WAXS</b>	106
	<u>Tamar Greaves</u> , Danielle Kennedy, Calum Drummond, CSIRO Molecular and Health Technologies/Australia	
17:00	<b>Small Angle X-ray Scattering and Optical Microscopy Studies on Various Protic Ionic Liquid-Surfactant Systems</b>	107
	<u>Zhengfei Chen</u> , Tamar L. Greaves, Rachel A. Caruso, Calum J. Drummond, CSIRO/ Australia	
17:20	<b>Measurement and Evaluation of Transport, Surface, Optical and Thermodynamic properties of 1-ethyl-3-methylimidazolium ethylsulphate with heteroaromatic nitrogen, heteroaromatic sulphur and water at (298.15, 303.15, 308.15, 313.15, 318.15, 323.15) K and 1 bar</b>	108
	<u>R.Anantharaj</u> , Tamal Banerjee, Indian Institute of Technology Guwahati/ India	
17:40	<b>Purification methods of bis-imidazolium ionic liquids</b>	109
	<u>Munirah Sufiyah Abd Rahim</u> , Puvaneswary Subramaniam and Yatimah Alias, University of Malaya/ Malaysia	
18:00	<b>Extractive Desulfurization of Fuel Using Pyridinium-Based Ionic Liquids</b>	122
	<u>Hongshuai Gao</u> , Chen Guo, Huizhou Liu, Institute of Process Engineering-CAS/China	
18:30	Dinner	



**Friday, September 10, 2010**

Room 1

Session Synt.\_3

*Chair:*

08:30	INVITED TALK	38
	<b>Ionic liquids for controlled synthesis of functional materials</b>	
	<u>Sheng Dai</u> , Oak Ridge National Laboratory/ USA	
09:10	<b>Ionic liquid (co)solvents for catalysed organic transformations</b>	68
	<u>D. Bradley G. Williams</u> , University of Johannesburg/ South Africa	
09:35	<b>BAILs as effective reaction media for the synthesis of polyesters</b>	69
	<u>Shaodong Zhang</u> , Hervé Lefebvre, Martine Tessier, Alain Fradet, Université Pierre et Marie Curie/ France	

Room 2

Session Sustain.\_2

*Chair: Zongbao (Kent) Zhao, Dalian institute of Chemical Physics-CAS/China*

08:30	<b>Functionalised Ionic Liquids for CO<sub>2</sub> Capture</b>	50
	<u>Junhua Huang</u> , Anthony Rosamilia, Hanming Liu, Thomas Ruether, CSIRO/ Australia	
08:55	<b>Deep Oxidative Desulfurization of Real Diesel with task-specific ionic liquid</b>	51
	<u>Dan Liu</u> , Jianzhou Gui, Yang shuang, Gao Yuhuan, Peng Xilai, Zhaolin Sun, Liaoning Shihua University/China	
09:20	<b>Absorption of carbon dioxide by ionic liquids with amine group</b>	52
	<u>Xianghai Meng</u> , Rui Zhang, Shuangshuang Liang, <u>Zhichang Liu</u> , China University of Petroleum/China	
09:45	<b>Environmentally benign un-catalyzed esterification of alcohols under solvent-free condition</b>	78
	<u>Mrs. Sangeeta S Makone</u> , Sandeep N Niwadange, Swami Ramanand Teerth Marathwada University/India	
10:20	Coffee break	
10:20	Poster Session Part 2 (Poster with odd numbers)	
12:30	Lunch break	

Room 1

*Chair: Urs Welz-Biermann, Dalian Institute of Chemical Physics-CAS*

14:00	PLENARY LECTURE	27
	<b>Ionic Liquid Solvents for the Grand Challenge Inherent in a Biorefinery: Extraction and Separation of Lignin, Cellulose, and Hemicellulose</b>	
	<u>Robin D. Rogers</u> , The University of Alabama, Tuscaloosa/USA	
15:00	PLENARY LECTURE	26
	<b>Properties of ionic liquids and their applications in green chemistry</b>	
	<u>Buxing Han</u> , Institute of Chemistry CAS, Beijing /China	
16:00	PLENARY LECTURE	
	<b>Using Structure-Property Relationships from Membrane Biochemistry as a Guide in Engineering the Properties of Ionic Liquids</b>	
	<u>James H. Davis, Jr.</u> , University of South Alabama, Mobile, Alabama /USA	
17:00	Closing Session	
18:00	Banquet	

P O S T E R P R O G R A M

	Page
P001 <b>Data and QSPR Study for Viscosity of Imidazolium-Based Ionic Liquids</b> <u>Chao Han</u> , Guangren Yu, Lu Wen, Dachuan Zhao, Xiaochun Chen, Beijing University of Chemical Technology/China	124
P002 <b>Microwave-assisted Extraction of Lactones from <i>Ligusticum Chuanxiong</i> Hort. Using Protic Ionic Liquid</b> Zhang Zhida, <u>Changping</u> , Urs Welz-Biermann, Wang Anjie, Dalian University/China	125
P003 <b>Low-Temperature Heat Capacity of 1-Alkyl-3-Methylimidazolium Bis(oxalato)borate Ionic Liquids and the Influence of Anion Structural Characteristics on Thermodynamic Properties</b> <u>Miao Yang</u> , Zhaojun Ning, Qingshan Liu, Lixian Sun, Peifang Yan, Zhicheng Tan, Urs Welz-Biermann, Dalian Institute of Chemical Physics-CAS/China	126
P004 <b>Ion Conductive Membrane with Interpenetration Network (IPN) using PVDF/Poly(ionic liquid)s blend</b> <u>Qinggeletu Nao</u> , Ping Liu, Yongsheng Fan, Dongqing Xu, Baoguo Wang, Tsinghua University/China	127
P005 <b>Synthesis, Properties of a Novel Guanidine Derivative and Guanidinium-based Ionic Liquids</b> <u>Zhen Li</u> , Jiamei Liu, Jianwei Zhou, Jing Chen, Chungu Xia, Lanzhou Institute of Chemical Physics-CAS/China	128
P006 <b>Hydrogenation of Levulinic Acid to <math>\gamma</math>-Valerolactone in ionic liquids</b> Jianwei Zhang, Yucui Hou, <u>Weize Wu</u> , Weina Liu, Beijing University of Chemical Technology/China	129
P007 <b>Conversion of Cellulose Catalyzed by <math>SO_4^{2-}/ZrO_2-TiO_2</math> Catalysts Supported on MCM-41 in Hot Water</b> Weina Liu, Yucui Hou, <u>Weize Wu</u> , Yan Jing, Baogang Zhang, Beijing University of Chemical Technology/China	130
P008 <b>Sol/Gel Transition and Rheological Properties of Concentrated 1-allyl-3-methylimidazolium Cellulose Solution</b> <u>Fei Lu</u> , Bowen Cheng, Jun Song, Yi Liang, Tianjin Polytechnic University/ China	131
P009 <b>Probing the intermolecular dynamics of aromatic liquid/ionic liquid mixtures by optical Kerr effect spectroscopy</b> <u>Dong Xiao</u> , Ali Mohammed, Larry G. Hines Jr., Richard A. Bartsch, Edward L Quitevis, Texas Tech University/USA	132
P010 <b>Polymerization of &amp; in Ionic Liquids-Based Microemulsions</b> <u>Feng Yan</u> , Soochow University/China	133
P011 <b>Enthalpy of Dilution of Aqueous <math>[C_3mim][Val]</math> at 298.15 K</b> <u>Wei Guan</u> , Shi-Lei Zhou, Jing Tong, Jia-Zhen Yang, Liaoning University/China	134
P012 <b>Gold Nanoparticles Synthesized in Ionic Liquids by Solvent-Thermal Methods</b> <u>Wei Huang</u> , Shimou Chen, Yusheng Liu, Haiying Fu, Guozhong Wu, Shanghai Institute of Applied Physics-CAS/China-CAS/China	135
P013 <b>Electrochemical Reduction of Oxygen in Room Temperature Ionic Liquids</b> <u>Maan Hayyan</u> , Farouq S. Mjalli, Mohd Ali Hashim, Inas M. AlNashef, Xue Mei Tan, University of Malaya/ Malaysia	136
P014 <b>Synthesis and optical properties of flower like MgO/ZnO nanocomposite using ultrasound radiation and a chiral ionic liquid</b> <u>Elaheh Kowsari</u> , Amirkabir University of Technology/ Iran	137

P015	<b>The study on the property of [BMIM]OH ionic liquids</b>	138
	Zhang Li-peng, Wang Xiao-ming, Yu Xian-jin, Dong Yun-hui, Li De-gang, Zhang Ya-li, Li Zhong-fang, Shandong University of Technology/China	
P016	<b>Isomerization of n-decane catalyzed by chloroaluminate ionic liquid</b>	139
	Hui Liu, <u>Wei Wu</u> , Linfei Xiao, Dan Liu, Heilongjiang University/China	
P017	<b>A hexafluorotitanate-based functional ionic liquid catalyst for cyclohexene oxidation to adipic acid using H<sub>2</sub>O<sub>2</sub></b>	140
	Sa-Sa Wang, <u>Ye Liu</u> , East China Normal University/China	
P018	<b>Preferential Solvation in Binary Mixtures of Ionic Liquids with Molecular Solvents</b>	141
	<u>Ali Reza Harifi-Mood</u> , Hadi Salari, Mohammad Reza Gholami, Tarbiat Moallem University/China	
P019	<b>Controlled Aggregation of 1-Decyl-3-methylimidazolium Bromide by Organic Additives in Aqueous Solutions</b>	142
	Huiyong Wang, Lamei Zhang, <u>Jianji Wang</u> , Henan Normal University/China	
P020	<b>Task-specific Choline-based Ionic Liquids: Synthesis and Application in Aqueous Two-phase systems</b>	143
	Zhiyong Li, Yuanchao Pei, Changzeng Wu, <u>Jianji Wang</u> , Henan Normal University/China	
P021	<b>Biodegradability of Pyridinium Based Ionic Liquids by Activated Sludge Microorganisms</b>	144
	<u>Rui Chang</u> , <u>Chunxi Li</u> , Hong Meng, Xiang Hu, Beijing University of Chemical Technology/China	
P022	<b>Are the Protic Ionic Liquids Strong or Weak Electrolyte?</b>	145
	<u>Yan Gao</u> , Yingjie Xu, Jia Yao, Haoran Li, Zhejiang University/China	
P023	<b>Equimolar and reversible CO<sub>2</sub> capture by ionic liquids</b>	146
	<u>Congmin Wang</u> , Xiaoyan Luo, Sheng Dai, and Haoran Li, Zhejiang University/China	
P024	<b>Enthalpies of Fusion and Solution of Imidazolium based ILs</b>	147
	<u>Philipp Keil</u> , Yan Peifang, Urs Welz-Biermann, Axel König, University of Erlangen/Germany	
P025	<b>Preparation of Aminoacidic Ionic Liquids by Electrodialysis</b>	148
	<u>Philipp Keil</u> , Renate Schwiedernoch, Wang Yanyu, Urs Welz-Biermann, Axel König, University of Erlangen/Germany	
P026	<b>Determination of Impurities in Ionic Liquids</b>	149
	<u>Axel König</u> , Philipp Keil, Detlef Jensen, University of Erlangen/Germany	
P027	<b>Study on Properties of Mixed Ionic Liquid Electrolyte of 1-Butyl-3-methylimidazolium Trifluoroacetate and A Spiro Quaternary Ammonium Tetrafluoroborate</b>	150
	<u>Qing-Guo Zhang</u> , Cheng-Li Zhang, Dao-Lin Wang, Ke-Di Cai, Zhen-Xing Jin, Bohai University/China	
P028	<b>A Facile One-Step Synthesis to Core Cross-linked Nanoparticles as Highly Active and Selective Catalysts for Cycloaddition of CO<sub>2</sub> to Epoxides</b>	151
	<u>Yubing Xiong</u> , Yujiao Wang, Hong Wang, Northwest Normal University/China	
P029	<b>Investigation of Self-Diffusion Coefficient of Confined Ionic Liquids in Carbon Nanotubes; Molecular Dynamic Simulation Approach</b>	152
	<u>Masumeh Foroutan</u> , Mahsa Setareh, University of Tehran/Iran	
P030	<b>Extractive Desulfurization of Fuels using Ionic Liquid with Low Viscosity</b>	153
	<u>Xi Li</u> , Guangren Yu, Xinxing Liu, Jingjing Zhao, Ge Liu, Xiaochun Chen, Beijing University of Chemical Technology/China	
P031	<b>Viscosity of Ionic Liquids: Database and Direct &amp; QSPR Understanding</b>	154
	<u>Dachuan Zhao</u> , Guangren Yu, Lu Wen, Xiaochun Chen, Beijing University of Chemical Technology/China	
P032	<b>Influence of dope concentration on morphology and properties of cellulose hollow fiber membranes prepared from 1-allyl-3-methylimidazolium chloride</b>	155
	Yi Liang, Jun Song, Bowen Cheng, <u>Fei Lu</u> , Tianjin Polytechnic University/China	

- P033 **Single Crystalline Snowlike Calcium Sulfide Micro/Nanostructures Growing from Ionic Liquid Precursor** 156  
Yongzhong Wu, Chang Gao, Haibo Gong, Xiaopeng Hao, Xiangang Xu, Shandong University/China
- P034 **Organic Carbonate Synthesis Catalyzed by Task-Specific Ionic Liquids (TSILs)** 157  
Zhen-Zhen Yang, Liang-Nian He, Xiao-Yong Dou, Sébastien Chanfreau, Nankai University/China
- P035 **Synthesis of cyclic carbonate catalyzed by Trihexyl(tetradecyl)phosphonium halides-zinc halides under mild conditions** 158  
Yufei Niu, Hua Wang, Jinyu Han, Meizhu Rong and Chong Liu, Tianjin University/China
- P036 **Double Metal Cyanide Catalyzed Fixation of CO<sub>2</sub> by Copolymerization with Epoxides Combined with a Catalytic Amount of Ionic Liquids** 159  
Ah Reum Kong, Ju Young Ha, Ji Hwan Yoon, Weihua Zhou, Dae-Won Park, Il Kim, Pusan National University/Korea
- P037 **Synthesis of succinic acid derivative using microwave irradiation and reusability of Amberlite IR-120.** 160  
Byong-Wook Lee, Hwang-Min Kim, Yeong-Joon Kim\*, Chungnam National University Daejeon/Korea
- P038 **Green Approach for the Synthesis of Carbonated Vegetable Oil by Carbon Dioxide Fixation Using Ionic Liquid as a Catalyst** 161  
Weihua Zhou, Eun Ji Choi, So Hyun Lee, Ah Reum Kong, Dae-Won Park, Il Kim, Pusan National University/ Korea
- P039 **Ionic Liquids and Ionic Liquid crystals of Vinylimidazolium Salts** 162  
Amol R. Deorukhkar, Shao-Wen Sun, Amitabha Bhattacharyya, Jung-Tang Lu, Ivan J. B. Lin, National Dong Hwa University/Taipei, China
- P040 **Imidazolium Tosylates Investigated with Spin Probes** 163  
Veronika Strehmel, Hans Rexhausen, Peter Strauch, University of Potsdam/Germany
- P041 **Imidazolium Tosylates as New Solvents in Free Radical Polymerization** 164  
Veronika Strehmel, Eric Reynaud, Hendrik Wetzels, Eckhard Görnitz, André Laschewsky, University of Potsdam/Germany
- P042 **Improved Protocol for the Aldehyde Olifination Reaction using [bmim][NTf<sub>2</sub>] as Reaction Medium** 165  
Vivek Srivastava, Academy of Science Engineering and Technology/India
- P043 **Modelling of Physical Properties of Ionic Liquids: Viscosity and Conductivity** 166  
Tanja Dekic Zivkovic, Cornald van Strien, Antoon ten Kate, Akzo Nobel /The Netherlands
- P044 **Thiocyanation of Benzyl Halides by Using Ionic Liquid** 167  
Dr. Mrs. Sangeeta.S.Makone, Mr.Shreyas.S.Mahurkar<sup>b</sup>, Swami Ramanand Teerth Marathwada University/India
- P045 **Atom Aggregation in Ionic Liquid** 168  
Xiaomin Liu, Xiaochun Zhang, Xiaoqian Yao, Suojiang Zhang, Institute of Process Engineering-CAS/China
- P046 **Characteristics of Atmospheric Catalytic- hybrid Dielectric Barrier Discharge Reactor for Oxidation of Methane to Methanol Production** 169  
Maryam khoshtinat Nikoo, Nor Aishah Saidina Amin, Universiti Teknologi Malaysia/ Malaysia
- P047 **Binary liquid-liquid equilibria for systems containing ionic liquids and hydrocarbons or thiophene. Influence of ionic liquids structure on solubility** 170  
Marek Królikowski, Urszula Domańska, Andrzej Marciniak, Warsaw University of Technology/ Poland
- P048 **Heat capacity and the thermodynamic properties of sulfonate-containing zwitterions** 171  
Xiumei Liu, Qingshan Liu, Miao Yang, Zhicheng Tan<sup>a</sup> and Urs Welz-Biermann, Dalian Institute of Chemical Physics-CAS/China

- P049 **Esterification of glycerol with acetic acid using double SO<sub>3</sub>H-functionalized ionic liquids as recoverable catalysts** 172  
Xiumei Liu, Huiyuan Ma, Miao Yang, Wu Yue and Urs Welz-Biermann, Dalian Institute of Chemical Physics-CAS/China
- P050 **Immobilization of Pd Nanoparticles on IL-Modified Magnetic Particles and Their Application in Heck Reaction** 173  
Yudai Yamada, Kun Qiao, Daisuke Tomida and Chiaki Yokoyama, Tohoku University/Japan
- P051 **Estimation of Novel Composite Oxygen Permeation Membrane (La<sub>1-x</sub>Sr<sub>x</sub>)(Mn<sub>0.85</sub>Fe<sub>0.05</sub>Co<sub>0.05</sub>Ni<sub>0.05</sub>)O<sub>3+δ</sub>(LSMFCN) with Yttria Stabilized Zirconia(YSZ)** 174  
Hyorim Choi, Eun Yi Kim and Chin Myung Whang, Department of Materials Science and Engineering/ Korea
- P052 **Preparation and Characterization of Novel Pyridine-Based Polyimides using Ionic Liquids** 175  
Elaheh Gharekhanj, Shahram Mehdipour-Ataei, Masoud Taghi-Ganji, Issa Yavari, Islamic Azad University/ Iran
- P053 **Estimation of Physico-Chemical Properties of Rhenium Ionic Liquid Using Semi-Empirical Methods** 176  
Da-wei Fang, Shu-liang Zang, Urs Welz-Biermann, Liaoning University/China
- P054 **Solution Enthalpy of Ionic Liquid [C<sub>5</sub>mim][Gly] by SAM** 177  
Da-Wei FANG, Jia-zhen YANG, Urs Welz-Biermann, Liaoning University/China
- P055 **Synthesis of some thiocarbamate dendrimers for friction reduction additives** 178  
Sung Ki Kim, Viet Hoang Quoc, Chang-Yong Cho, Yeong-Joon Kim, Chungnam National University/ Korea
- P056 **Study on Carbon Nano-Composite Counter Electrode for Dye-Sensitized Solar Cells** 179  
Yiming Chen, Haiyan Zhang, Jiapeng Lin, Min Zhang, Aixiang Wei, Chuanbiao Liu, Guangdong University of Technology/China
- P057 **Ionic Liquid 3-Methyl-1-sulfonic Acid Imidazolium Chloride ([Msim]Cl): A New and Highly Efficient Catalyst for the Rapid Synthesis of 1-Amidoalkyl-2-naphthols under Solvent-free Conditions** 180  
Ardeshir Khazaei, Mohammad Ali Zolfigol, Ahmad Reza Moosavi-Zare, Abdolkarim Zare, Bu-Ali Sina University/Iran
- P058 **Solvent effects on molecular reaction media Nucleophilic ability and acid catalyst behavior of Protic Ionic Liquids** 181  
P. M. Mancini, M. V. Bravo, and C.G. Adam, Universidad Nacional del Litoral/Argentina
- P059 **Use of fractional factorial design for optimization of dispersive liquid-liquid microextraction based on ionic liquid with flame atomic absorption spectrometry using microsample introduction for preconcentration and determination of nickel and manganese in water and food samples** 182  
Rouhollah Khani, Farzaneh Shemirani, Maryam Ezoddin, University of Tehran /Iran
- P060 **Preconcentration and biomonitoring of lead based on ionic liquid with flame atomic absorption spectrometry using microsample introduction-Evaluation via Response Surface Methodology** 183  
Behrooz Majidi, Farzaneh Shemirani, Rouhollah Khani<sup>c</sup>, University of Tehran/Iran
- P061 **Ionic liquids as green and recyclable solvents for the synthesis of N-substituted-N'-aroylthiourea containing 9,10-anthraquinone moiety as disperse dyes** 184  
Elaheh Kowsari, Issa Yavari, Amirkabir University of Technology/ Iran
- P062 **Hydrocortisone Acetate Nano-particles Production by Rapid Expansion of a Supercritical Solution in to a Liquid Solvent (Resolve Method): An operational Condition Study** 185  
Fatemeh Zabihi, Maryam Otadi, Maziar Sharifzadeh, Islamic Azad University/Iran
- P063 **Synthesis of hollow spheres and Coralline like ZnO nanostructures in acidic ionic liquids** 186  
Elaheh Kowsari, Amirkabir University of Technology/Iran

P064	<b>Synthesis of Polythiophene Nanofibers by ionic liquid-Assisted Polymerization Method for High Performance Redox Supercapacitors</b>	187
	<u>Elaheh Kowsari</u> , Amirkabir University of Technology/Iran	
P065	<b>Novel SO<sub>3</sub>H-functionalized ionic liquids based on benzimidazolium: acidities and their structure-acidity-catalytic activity relationships</b>	188
	<u>Yuanyuan Wang</u> , Liyi Dai, East China Normal University/China	
P066	<b>Advanced supported ionic liquid phase (SILP) catalysts for the gas-phase synthesis of dimethyl carbonate</b>	189
	<u>Marco Haumann</u> , Marion Stricker, Jörg Sundermeyer, Berthold Melcher, Peter Wasserscheid, Universität Erlangen-Nürnberg/Germany	
P067	<b>The preparation of corn stover/ cellulose nano-whiskers composite films with an ionic liquid</b>	190
	<u>Nan Luo</u> , Jinming Zhang, Jin Wu, Jun Zhang, Institute of Chemistry-CAS/China	
P068	<b>Aggregation Behavior of Cellulose in Solvent mixtures of 1-allyl-3-methylimidazolium chloride (AmimCl) and Dimethylsulfoxide (DMSO) studied by Light Scattering</b>	191
	<u>Yuxia Lv</u> , Jinming Zhang, Yanhua Niu, Jun Zhang, Institute of Chemistry-CAS/China	
P069	<b>Spherulitic Crystallization of Cellulose from its Concentrated Solutions in an Ionic Liquid</b>	192
	<u>Hongzan Song</u> , Yanhua Niu, Jun Zhang, Institute of Chemistry-CAS/China	
P070	<b>An innovative approach to H<sub>2</sub>S removal and sulfur recovery using the ionic liquid of heteropoly compound</b>	193
	<u>Rui Wang</u> , Yunqian Ma, Shandong University/China	
P071	<b>Thermodynamic and volumetric properties of thiocyanate ionic liquids</b>	194
	<u>Marta Królikowska</u> , Urszula Domańska, Tadeusz Hofman, Warsaw University of Technology/Poland	
P072	<b>Thermochemistry of Sulfur Containing Ionic Liquids – First Experiences with the Rotating Bomb Combustion Calorimetry</b>	195
	Dzmitry H. Zaitsau, Vladimir N. Emel'yanenko, <u>Sergey P. Verevkin</u> , Andreas Heintz, University of Rostock/Germany	
P073	<b>1-Methylimidazolium Chlorosulfate ([HMIm]SO<sub>3</sub>Cl): a Novel Brønsted-Lewis Dual Acidic Ionic Liquid</b>	196
	<u>Kun Qiao</u> , Quanxi Bao, Daisuke Tomida and Chiaki Yokoyama, Tohoku University/Japan	
P074	<b>Ionic liquid based on hydrated magnesium chloride</b>	197
	<u>Duyuan YUE</u> , Yongzhong JIA, Yan JING, Jinhe SUN, Graduate University of CAS, Qinghai Institute of Salt Lakes-CAS/China	
P075	<b>Extraction of Non-Metallic Elements from Water into Ionic Liquids for Trace Analysis</b>	198
	<u>Hiroaki Matsumiya</u> , Haruka Takata, Yusuke Inagaki, and Masataka Hiraide, Nagoya University/Japan	
P076	<b>Electrochemical Characterization of Pentacene Thin Film Electrode in Vacuum with Ionic Liquid as Electrolyte</b>	199
	<u>Shingo Maruyama</u> and Yuji Matsumoto, Tokyo Institute of Technology/Japan	
P077	<b>Activity coefficients at infinite dilution for organic solute in 1-butyl-3-methylimidazolium tosylate</b>	200
	<u>Marek Królikowski</u> , Urszula Domańska, Warsaw University of Technology/Poland	
P078	<b>Reactivity studies of PEG immobilized ionic liquid on cycloaddition of CO<sub>2</sub> to epoxide</b>	201
	<u>Hye-Ji Choi</u> , Moon-Seok Park, Dae-Won Park, Pusan National University/Korea	
P079	<b>Porous polymer supported ionic liquid catalysts for CO<sub>2</sub> cycloaddition reaction</b>	202
	<u>Lina Han</u> , Hye-Ji Choi, Dong-Kyu Kim, Dae-Won Park, Pusan National University/Korea	
P080	<b>Solventless synthesis of cyclic carbonate from allyl glycidyl ether and CO<sub>2</sub> using immobilized ionic liquid onto montmorillonite clay</b>	203
	<u>Dong-Kyu Kim</u> , Kanattukara Vijayan Bineesh, Jose Tharun, Dae-Won Park, Pusan National University/Korea	

P081	<b>Lanthanide-containing ionic liquids as novel luminescent “soft” materials</b>	204
	<u>Yuefeng Deng</u> , Tao Long, He Zhao, Ji Chen, Wanfa Liu, Yimin Li, Changchun Institute of Applied Chemistry-CAS/China	
P082	<b>Eco-friendly Ionic Liquids Smoke Screen(ILSS) preparation and application</b>	205
	<u>Yu Liu</u> , Ji Chen, Changchun Institute of Applied Chemistry-CAS/China	
P083	<b>Extension of the Valderrama and Robles Group Contribution Method to Estimate Critical Properties and Densities of Ionic Liquids</b>	206
	<u>Chong Shen</u> , Chun-xi Li, Zi-hao Wang, Beijing Univ. of Chem. Tech./China	
P084	<b>Research on Preparation and aluminum electrodeposition of Ionic Liquid (BMIM)Br-AlCl<sub>3</sub></b>	207
	<u>Zhang Li-peng</u> , Wang Xiao-ming, Yu Xian-jin, Dong Yun-hui, Li De-gang, Zhang Ya-li, Li Zhong-fang, Shandong University of Technology/China	
P085	<b>Study on preparation of chitosan fibers with ionic liquids[Gly]Cl as solvent</b>	208
	XU Dezeng, <u>MEN Xiulong</u> , GUO Jing, ZHAO Ting, Dalian Polytechnic University/China	
P086	<b>Synthesis and applications of ionic liquid surfactants</b>	209
	<u>WANG Jun</u> , YANG Xu-zhao, LI Ni-ni, Zhengzhou University of Light Industry/China	
P087	<b>Anion-functionalized protic ionic liquids for CO<sub>2</sub> capture</b>	210
	<u>Guokai Cui</u> , Congmin Wang, Haoran Li, Zhejiang University/China	
P088	<b>Cellulose pretreatment with 1-n-butyl-3-methylimidazolium chloride for solid acid-catalyzed hydrolysis: Correlation between the crystallinity index and TRS or glucose yields</b>	211
	Dwiatmoko Adid Adep, Jihye Ryu, Jae-Wook Choi, Dong Jin Suh, <u>Young-Woong Suh</u> , Korea Institute of Science and Technology (KIST)/Korea	
P089	<b>Effect of Ionic Liquids on Lysozyme Refolding Process</b>	212
	<u>Sung Ho Ha</u> , Sang-Woo Bae, Woo-Jin Chang, Yoon-Mo Koo, Inha University/Korea	
P090	<b>Liquefaction and Extraction of Cellulose from Lignocellulosic Materials Using Ionic Liquids</b>	213
	<u>Xuejing Wang</u> , Huiquan Li, Yan Cao, Qing Tang, Haitao Liu, Institute of Process Engineering-CAS/China	
P091	<b>Zn-containing Ionic Liquids for the Carboxylation of Epoxide: A Mechanistic Consideration</b>	214
	<u>Yu Na Shim</u> , Jinkyu Lee, Dinh Quan Nguyen, Hoon Sik Kim, and Minserk Cheong, Kyung Hee University/ Korea	
P092	<b>Dissolution and Regeneration of Alginate in Room Temperature Ionic Liquids: Preparation of Alginate-ZnO Nanoparticles Composite Ion-Gels</b>	215
	<u>Tejwant Singh</u> , Tushar J. Trivedi, K. Srinivasarao, and Arvind Kumar, Council of Scientific & Industrial Research (CSIR)/ India	
P093	<b>ZnBr<sub>2</sub>-based choline chloride ionic liquid for efficient fixation of CO<sub>2</sub> to cyclic carbonate</b>	216
	Zeng-Zeng Fu, Min-Fang Han, Jin-Quan Wang, <u>Jian Sun</u> , Wei-Guo Cheng, Suo-Jiang Zhang, China University of Mining & Technology/ China	
P094	<b>Solubility of [bmim]Br in ethylene carbonate</b>	217
	Huifang Wu, <u>Jian Sun</u> , Weiguo Cheng, Xiangping Zhang, Suojiang Zhang, Institute of Process Engineering-CAS/China	
P095	<b>Friedal-Crafts Acylation of Toluene with Acetic Anhydride over Hierarchical Porous Zeolite Beta</b>	218
	<u>Tze -Min Her</u> , Hsiu-Ling Hsu, Rosilda Selvin, Lunghwa University of Science and Technology/Taipei, China	
P096	<b>Electrodeposition of magnesium from ionic liquids</b>	219
	<u>ZUO Yong</u> , MA Mei-Yan, ZHANG Suo-Jiang, ZHANG Hai-Lang, Institute of Process Engineering-CAS/China	
P097	<b>Trisubstitute imidazolium based ionic liquids as electrolyte for lithium-ion battery</b>	220
	<u>REN Ren</u> , ZUO Yong, ZHANG Hai-Lang, ZHANG Suo-Jiang, Jiangnan University/ China	

- P098 **Design and multi-objective optimization of EG/DMC coproduction process** 221  
Xiao Tian, Xingping Zhang, Lei Huang, Yansong Zhao, Suojiang Zhang, Institute of Process Engineering-CAS/China
- P099 **Research on ionic liquids purification and purity detection method of ionic liquids** 222  
Hongwei Yao, Xiangping Zhang, Suojiang Zhang\*
- P100 **Conversion of cellulose into 5-hydroxymethylfurfural (HMF) in and catalyzed by acidic ionic liquids** 223  
Zheng Yong, Maximilian Werner Hahn, Wang Jinqun, Zhang Xiangping, Zhang Suojiang, Institute of Process Engineering-CAS/China
- P101 **Cationic functionalisation of cellulose: An efficient heterogeneous catalyst for the synthesis of cyclic carbonate from epoxide and carbon dioxide** 224  
Jian Sun, Jianxin Zhang, Jinqun Wang, Weiguo Cheng, Suojiang Zhang, Institute of Process Engineering-CAS/China
- P102 **Molecular dynamics simulations of [ppg][BF<sub>4</sub>]-CO<sub>2</sub> mixtures** 225  
Xiaochun Zhang, Xiaomin Liu, Xiaoqian Yao, Suojiang Zhang, Institute of Process Engineering-CAS/China
- P103 **Modeling of Flow, Mass Transfer, and Chemical Reaction of CO<sub>2</sub> Absorption in Ionic Liquid based Imidazolium** 226  
Yan Xu, Xiaoling Wang, Xiangping Zhang, Haifeng Dong, Suojiang Zhang, Institute of Process Engineering-CAS/China
- P104 **Ionic Liquid 3-Methyl-1-sulfonic Acid Imidazolium Chloride ([Msim]Cl) As a Novel and Highly Efficient Catalyst for the Synthesis of 2,4,6-triarylpyridines** 227  
Mohammad Ali Zolfigol, Ardeshir Khazaei, Ahmad Reza Moosavi-Zare, Abdolkarim Zare, Bu-Ali Sina University/Iran
- P105 **Novel synthesis of magnetic carbon nanotubes functionalized by a magnetic ionic liquid [vmim]FeCl<sub>4</sub>** 228  
Yang Fuming, Zhou Qing, Li Xiaohua, Zhang Suojiang, Qiao Congzhen, Institute of Process Engineering-CAS, Henan University /China
- P106 **Solubilities of ammonia in basic imidazolium ionic liquids** 230  
Guihua Li, Qing Zhou, Xiangping Zhang, LeiWang, Suojiang Zhang, Jianwei Li, Beijing University of Chemical Technology/China
- P107 **A Selective, Efficient, and Green Procedure for Quinoline Synthesis Using Basic Ionic Liquid in Aqueous Media under ultrasound irradiation** 231  
Elaheh Kowsari, Amirkabir University of Technology/ Iran
- P108 **A green protocol for the synthesis of substituted 3,5-dihydro-4H-imidazol-4-ones in the presence of a task specific basic ionic liquid in aqueous media** 232  
Elaheh Kowsari, Issa Yavari, Amirkabir University of Technology/ Iran
- P109 **Efficient Synthesis of Substituted  $\Delta$ 1-Pyrrolines from Aldehydes, Malononitrile, Phenylglycine, and Acid Chlorides Promoted by a Task Specific Basic Ionic Liquid in Aqueous Media** 233  
Elaheh Kowsari, Issa Yavari, Amirkabir University of Technology/ Iran
- P110 **Prevention of Cultural Heritage with ionic liquids** 234  
Ajaya Bhattarai, Tribhuvan University/ Nepal
- P111 **Modeling of thermodynamic properties of ionic liquid solutions using an equation of state based on statistical theory for chemical association and mean spherical approximation** 235  
Jinlong Li, Changchun He, Changjun Peng, Honglai Liu, Ying Hu, East China University of Science and Technology/ China
- P112 **Imidazolium salt/ ZnCl<sub>2</sub>-functionalized Chitosan: An easily recyclable catalyst for the efficient solventless synthesis of cyclic carbonates from epoxides and CO<sub>2</sub>** 236  
JianXin Zhang, Qian Li, Jian Sun, JinQuan Wang, WeiGuo Cheng, SuoJiang Zhang, Henan University, Institute of Process Engineering-CAS



- P113 **New polymer inclusion membrane using ionic liquids for the transportation of Cr(VI)** 237  
Lin Guo, Yinghui Liu, Chao Zhang, Ji Chen, Changchun Institute of Applied Chemistry-CAS, Graduate School of CAS/China
- P114 **Production of 5-hydroxymethylfurfural from glucose in ionic liquids catalyzed by hydroxyapatite supported chromium chloride** 238  
Zehui Zhang, Zongbao (Kent) Zhao, Dalian institute of Chemical Physics-CAS/China
- P115 **Experimental and Theoretical Investigation of a Dielectric Barrier Discharge Plasma Actuator Discharge Power** 239  
Andrew R.H. Rigit, Ijen Dakek, Universiti Malaysia Sarawak/ Malaysia
- P116 **Molecular dynamics simulation study on the spectrum and dynamics of water in [Emim]BF<sub>4</sub> ionic liquids** 240  
Guocai Tian, Jian Li, Yixin Hua, Kunming University of Science and Technology/China
- P117 **'Greener' Ionic Liquids: Synthesis, Antimicrobial Activity and Applications in Hydrogenation Reactions** 241  
Haibo Xie, Yingjie Cao, Brid Quilty, Monika Gurbisz, Nicholas Gathergood, Hongbin Zhao, Dalian institute of Chemical Physics-CAS/China
- P118 **Activity coefficients at infinite dilution for organic solute in thiocyanate ionic liquids** 242  
Marta Królikowska, Urszula Domańska, Warsaw University of Technology/ Poland
- P119 **Enzymatic Synthesis of biodegradable polymer and copolymer in Ionic Liquids** 243  
Sébastien Chanfreau, María Mena, Mariana Ramírez-Gilly, Alberto Tecante, Miquel Gimeno and Eduardo Bárzana, Nankai University/China
- P120 **Aerobic Oxidation of Alcohols Catalyzed by Task-Specific Ionic Liquids (TSILs)-Containing Systems** 244  
Bing Yu, Cheng-Xia Miao, Liang-Nian He, Nankai University/China
- P121 **Ionic liquid promoted synthesis of some pyrimidin and imidazo pyrimidin** 245  
Ghodsiyeh Bagherzade, Masoud Kermanee, Mehdi Mogharabi, University Of Birjand/Iran
- P122 **Determination of Refractivity of Ionic Liquid [C<sub>5</sub>mim][Gly]** 246  
Jian-xin LI, Da-Wei FANG, Urs Welz-Biermann, Dalian Institute of Physical Chemistry-CAS/China
- P123 **Acidic ionic liquids mediated metallic salts catalyst system for the chemical fixation of carbon dioxide to cyclic carbonate** 247  
Dongwei Lv, Linfei Xiao, Wei Wu, Heilongjiang University/China
- P124 **Selective decomposition of cumene hydroperoxide into phenol and Acetone by Core-Shell Silica - 12-Tungstophosphoricacid Nanoparticles** 248  
Hsiu-Ling Hsu, Yu Chen-Kuo, Rosilda Selvin, Lunghwa University of Science and Technology/Taipei, China
- P125 **Highly active and selective nanocrystalline Beta Catalysts for the tert-butylation of cresols** 249  
Hsiu-Ling Hsu, Yu Chen-Kuo, Rosilda Selvin, Lunghwa University of Science and Technology/Taipei, China
- P126 **Speciation of Arsenic with Ion Chromatography-Chemiluminescence Detection** 250  
Buo-Chi Chang, Yun-Chieh Chen, and Hwa Kwang Yak, Chung Yuan Christian University/Taipei, China
- P127 **Improvement in Converged-type of micro mixer by using plates** 251  
Chin-Tsan Wang, Hong-Chang Zhou, National I Lan University/ Taipei, China
- P128 **Double Fined-type Cathode Applied to the Electricity Performance of Sediment Microbial Fuel Cells** 252  
Chin-Tsan Wang, Wei-Ting Qiu, National I Lan University/ Taipei, China
- P129 **Simple and practical Synthesis of N-Substituted Pyrroles in Water in the Presence of organocatalyst** 253  
Najmedin Azizi, Mohammad Bolourtchian, Chemistry & Chemical Engineering Research Center of Iran / Iran

P130	<b>Electric Double Layer at Au(100) / Imidazolium-Based Ionic Liquids Interface</b>	254
	<u>Yu-Zhuan Su</u> , Jia-Wei Yan, Bing-Wei Mao, Xiamen University/China	
P131	<b>Pd-NHC Ionic Liquid Matrix Immobilized on Mesoporous Silica and Selective Hydrogenation</b>	255
	Gang Liu, Mingqiang Hou, Tainbin Wu, Tao Jiang, <u>Buxing Han</u> , Institute of Chemistry-CAS/China	
P132	<b>Immobilization of Pd Nanoparticles on Polymer by Functional Ionic Liquid and Heck Reaction</b>	256
	Gang Liu, Mingqiang Hou, Tao Jiang, <u>Buxing Han</u> , Institute of Chemistry-CAS/China	
P133	<b>Ionic Liquid Functionalized Cross-Linked Polymer and Catalytic Performance for CO<sub>2</sub> Cycloaddition Reaction</b>	257
	Baoji Hu, Tianbin Wu, Xiaosi Zhou, <u>Buxing Han</u> , Institute of Chemistry-CAS/China	
P134	<b>Synthesis of amino acid ionic liquids from precursor [EMIM]OH via bipolar membrane electro dialysis</b>	258
	<u>Wang Yanyu</u> , Axel König, Keil Philipp, Urs Welz-Biermann, Dalian Institute of Chemical Physics-CAS/China	
P135	<b>HCl-modified halides-aluminum chloride ionic liquid: Effective catalyst for highly selective synthesis of 2,6-dimethylnaphthalene</b>	259
	<u>Wei Wu</u> , Linfei Xiao, Hui Liu, Dan Liu, Min Xu, Heilongjiang University/China	
P136	<b>Solubilities of the Gaseous and Liquid Solutes in the Ionic Liquids at Infinite Dilution by Gas Chromatography</b>	260
	<u>Peifang Yan</u> , Xiumei Liu, Chang Wang, Miao Yang, Zhi-Cheng Tan and Urs Welz-Biermann, Dalian Institute of Chemical Physics-CAS/China	
P137	<b>Study on preparation of chitosan fibers with ionic liquids[Gly]Cl as solvent</b>	261
	XU Dezeng, <u>MEN Xiulong</u> , Tang Lingjun, ZHAO Ting, GUO Jing, Dalian Polytechnic University/China	
P138	<b>Synthesis of ionic liquids with low halogen content by using the microreactor</b>	262
	Wan Joo Kim, <u>Jung Bok Ryu</u> , Eun Hee Cha, Jung Jae Ju, Dept. of Ionic Liquid Synthesis, C-TRI/ Korea	
P139	<b>Synthesis of Functionalized Diarylacetylene Derivatives from Acetylene Gas Over Nano-sized Carbon Ball Supported Palladium Catalyst</b>	263
	<u>Jong Woo Son</u> , Soo Kwang Kim, Eul Kgun Yum, Chungnam National University/ Korea	
P140	<b>One pot synthesis and characterization of novel oligomeric dyes in aqueous acidic ionic liquids</b>	264
	<u>Elaheh Kowsari</u> , Issa Yavari, Amirkabir University of Technology/Iran	
P141	<b>Thermal Stability of Ionic Liquids Containing the FSI<sup>-</sup> Anion and the Li<sup>+</sup> Cation</b>	265
	<u>Junhua Huang</u> , Anthony Hollenkamp, CSIRO/ Australia	
P142	<b>Enzymatic synthesis of caffeic acid phenethyl ester in ionic liquids</b>	266
	<u>Ngoc Lan Mai</u> , Van Anh Tran, Sung Ho Ha, Yoon-Mo Koo, Inha University/ Korea	
P143	<b>Ionic Liquid based microfluidic method for preparation luminescent and water-soluble CeF<sub>3</sub>: Tb<sup>3+</sup> nanocrystals</b>	267
	<u>Nan Xie</u> , Weiling Luan, Shan-tung Tu, East China University of Science and Technology/ China	
P144	<b>Direct Polycondensation to afford Poly(ether amide)s through Conventional and Ionic Liquid Methods</b>	268
	<u>Masoud Taghi-Ganji</u> , Shahram Mehdipour-Ataei, Elaheh Gharekhani, Amir Mohammad Gharekhani, Islamic Azad University/ Iran	
P145	<b>Phase- and Size-Controlled Synthesis of CdSe/ZnS Nanoparticles Using Ionic liquid</b>	269
	<u>Eun Hee Cha</u> , S.A.Lim, Yun Mi Song, Jeunghee Park, Hoseo University/ Korea	
P146	<b>Thermophysical characterization of [C<sub>6</sub>py][NTf<sub>2</sub>]</b>	270
	<u>Qing-Shan Liu</u> , Pei-Pei Li, Chang-Ping Li, Urs Welz-Biermann, Dalian Institute of Chemical Physics-CAS/China	

- P147 **Thermodynamic properties of ionic liquids [C<sub>n</sub>py][PF<sub>6</sub>] (n = 2, 3)** 271  
Qing-Shan Liu, Jun-Ning Zhao, Pei-Fang Yang, Li-Xian Sun, Zhi-Cheng Tan, Urs Welz-Biermann, Dalian Institute of Chemical Physics-CAS/China
- P148 **Effect of Anionic Chain Lengths on thermochemistry properties of amine functionalized sulfonium ionic liquids** 272  
Chang Wang, Xiumei Liu, Urs Welz-Biermann, Dalian Institute of Chemical Physics-CAS/China
- P149 **Synthesis of Renewable Carbonated Soybean Oil Using for Flame Retardant Nonisocyanate Polyurethane Based on Ionic Liquid Catalysts** 273  
Eunji Choi, Weihua Zhou, Dae-Won Park, Ju Young Ha, Ji Hwan Yoon, Il Kim, Pusan National University/Korea
- P150 **Heterogeneous Structure in Mixtures of Water and Ionic Liquid** 274  
Ye Chen, Fuyou Ke, Yumei Zhang and Dehai Liang, Donghua University/China
- P151 **Radical Polymerization of Acrylonitrile and Methyl Acrylate with 1-Butyl-3-methylimidazolium Chloride Aqueous as Medium** 275  
Lingling Yang, Ming Xue, Jing Deng, Yumei Zhang, Huaping Wang, Donghua University/China
- P152 **Synthesis of some Poly(ester imide)s Based on Pyridine through Ionic Liquids** 276  
Masoud Taghi-Ganji, Shahram Mehdipour-Ataei, Elaheh Gharekhani, Islamic Azad University/Iran
- P153 **Effects of tetramethyl ammonium chloride on aluminum electrorefining from AlCl<sub>3</sub>-BMIC ionic liquid** 277  
Li Yan, Hua Yi-xin, Zhang Qi-bo, Xun Cun-ying, Pei Qi-fei, Kunming University of Science and Technology/China
- P154 **Ionic liquid based LASER** 278  
S. Pitula, J. Krause, D. Pitz, S. Mahlik, M. Grinberg, T. Woike, D. Schaniel, A.-V. Mudring, Ruhr-Universität Bochum/Germany
- P155 **First study of activity coefficients at infinite dilution in the protic ionic liquid Ethyl-Ammonium Nitrate** 279  
Bo Tong, Dmitry H. Zaitsau, Urs Welz-Biermann, Sergey Verevkin, Dalian University of Technology/China
- P156 **MgO/ZrO<sub>2</sub> catalyzed one-pot synthesis of dihydropyrimidinones: an improved protocol for the Biginelli reaction** 280  
Nagrik D.M., Ambhore D.M., Devhade J.B., Gawande M.B., Pankaj Laddhad Institute of Technology/India
- P157 **High Absorbability of HCl in Ionic Liquids** 281  
Shuo Li, Zhen Zhang, Xiangping Zhang, Suojiang Zhang, Institute of Process Engineering-CAS/China
- P158 **Physical Characterisation of Ionic Liquids on a Microfluidic Device** 283  
Rile Ge, Leigh Aldous, Nicola Doy, Gary Christopher Hardacre, David W. Rooney, QUILL Research Centre/UK