DECHEMA

PROGRAMME

07 – 11 September 2014
Congress Center Würzburg (CCW) · Germany

ISEC 2014
International Solvent Extraction Conference

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ISEC 2014
International Solvent Extraction Conference

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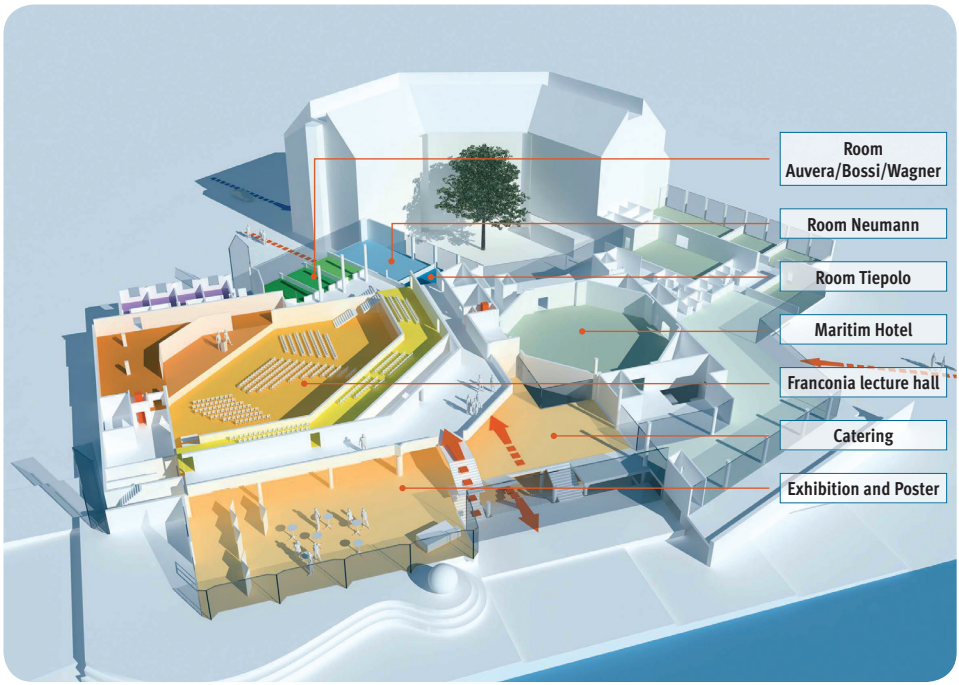
Sunday, 7 September 2014

9:00 – 16:00	Advanced Course	Room Neumann
12:00	ISCE Meeting	Room Tiepolo
16:00 – 18:00	Registration	
18:00 – 20:00	Welcome Reception	

OVERVIEW – CONGRESS CENTER WÜRZBURG



Monday, 8 September 2014

	Franconia lecture hall	Room Neumann	Room Auvera/Bossi/Wagner	Room Tiepolo
8:30	**OPENING**			
8:40	**B. Moyer** – Oak Ridge National Laboratory/USA			
9:25	COFFEE BREAK AND SNACKS			
	Hydrometallurgy and metals extractions	**Nuclear fuel reprocessing**	**Fundamentals/ Novel reagents, materials and techniques**	**Extraction on mini-scale**
9:55	**T. Vander Hoogerstraete** University of Leuven/B	**T. Todd** Idaho National Laboratory/USA	**D. Bourgeois** ICSM/F	**A. Holbach** TU Dortmund/D
10:20	**J. Quinn** Australian Nuclear Science and Technology Organisation/AUS	**K. Nash** Washington State University/USA	**J. Mendez-Quezada** Universidad de Guanajuato/MEX	**J. Hereijgers** Vrije Universiteit Brussel/B
10:45	**J. Yang** Chalmers University of Technology/S	**C. Marie** CEA/F	**M. Mohammadi** KTH Royal Institute of Technology/S	**J. Tan** Tsinghua University/CHN
11:10	**M.A. Halim** Process Research ORTECH Inc./CDN	**A. Wilden** Forschungszentrum Jülich GmbH/D	**P. Hewitson** Brunel University/UK	**G. Liu** Tsinghua University/CHN
11:35	**R. Egashira** Tokyo Institute of Technology/J	**C. Wagner** Universität Heidelberg/D	**C.A. Hawkins** University of California/USA	**K. Smith** The University of Melbourne/AUS
12:00	LUNCH BREAK			
	Franconia lecture hall	Room Neumann	Room Auvera/Bossi/Wagner	Room Tiepolo
13:30	**A. Geist** – KIT – Karlsruhe Institute of Technology/D			
14:00	**B. Rüngeler** – RWTH Aachen/D			
14:30	COFFEE BREAK			
15:00	**C. Tunsu** University of Technology, Gothenburg/S	**H. Galán** Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, Madrid/E	**P. Chuttrakul** Graz University of Technology/A	**Y. Miyazaki** Japan Atomic Energy Agency/J
15:25	**K. Huang** Chinese Academy of Sciences/CHN	**A. Wilden** Forschungszentrum Jülich GmbH/D	**H. Watarai** Osaka University/J	**M. Awual** Japan Atomic Energy Agency/J
15:50	**M. Goto** Kyushu University, Fukuoka/J	**J. Law** Idaho National Laboratory/USA	**K. Wieszczycka** Poznan University of Technology/PL	**Y. Wang** Tsinghua University/CHN
16:15	**K. Larmour-Ship** Tenova Bateman Technologies, Yokneam/IL	**R. Berlemont** CEA Marcoule/F	**Y. Baba** University of Miyazaki/J	**G. Hellé** CEA Saclay/F
16:40	COFFEE BREAK AND SNACKS			
17:10	**G.Q. Zhang** Central South University/CHN	**M.C. Charbonnel** CEA/F	**O. Riechert** TU Dortmund/D	**P.R. Martins Bento** University of Utah, Salt Lake City/USA;
17:35	**L. Zeng** Central South University/CHN	**K. Takeshita** Tokyo Institute of Technology/J	**S. Dourdain** University of Montpellier 2/F	**C. Priest** University of South Australia/AUS
18:05	**V. Vanel** CEA/F	**R. Taylor** National Nuclear Laboratory/UK	**D. Gorri** University of Cantabria/E	**W. De Malsche** Vrije Universiteit/B
18:30	**POSTER PARTY** (18:30 – 21:00)			

Tuesday, 9 September 2014

	Franconia lecture hall	Room Neumann	Room Auvera/Bossi/Wagner	Room Tiepolo
8:30	**E. Paatero** – Outotec Oyj/FIN			
9:15	COFFEE BREAK AND SNACKS			
	Novel reagents, materials and techniques	**Fundamentals**	**Process chemistry and engineering**	**Biotechnology, pharmaceutical, life science and organic products**
9:45	**S. Schlosser** Slovak University of TechnologySK	**D. Dherbecourt** CEA/F	**E.W. Barega** Eindhoven University of Technology/NL	**C. Ladd Effio** Karlsruhe Institute of Technology (KIT)/D
10:10	**P. Lozano** University of Murcia/E	**R.F. Engberg** University of Paderborn/D	**W. Hengeveld** Spinid B.V./NL	**J. Mündges** TU Dortmund/D
10:35	**A. Urtiaga** University of Cantabria/E	**M. Kraume** TU Berlin/D	**R. Schulz** TU Dortmund/D	**C. Brandenbusch** TU Dortmund/D
11:00	**M. Dietz** University of Wisconsin/USA	**O. Diat** ICSM/F	**A. Salum** Universidade Federal de Minas Gerais/BR	**E. Alvarez-Guerra** Universidad de Cantabria/E
11:25	**M. Gramblicka** University of Twente/NL	**T. Grunert** TU Berlin/D	**A. Bednarz** RWTH Aachen	**S. Ignatova** Brunel University/UK
11:50	LUNCH BREAK			
13:50	**Excursion "City tour through Würzburg"**			

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Wednesday, 10 September 2014

	Franconia lecture hall	Room Tiepolo	Room Auvera/Bossi/Wagner	Room Neumann
8:30	**F. Chemat** – Avignon University/F			
9:15	COFFEE BREAK AND SNACKS			
	Franconia lecture hall	Room Tiepolo	Room Auvera/Bossi/Wagner	Room Neumann
	Hydrometallurgy and metals extractions	**Fundamentals**	**Extraction of natural products from plants**	**Novel reagents, materials and techniques**
9:45	**K. Soldenhoff** ANSTO/AUS	**E. Cvetkovic** Graz University of Technology/A	**B. Bol** Graz University of Technology/A	**S. Nusen** CSIRO/AUS
10:10	**D. Singh** Bhabha Atomic Research Centre/IND	**H. Chen** East China University of Science and Technology/CHN	**R. Orozco Mena** Autonomous University of Chihuahua/MEX	**V. Herdegen** TU Bergakademie Freiberg/D
10:35	**A. Chagnes** ENSCP/F	**F. Gebauer** University of Kaiserslautern/D	**R. Racheva** Hamburg University of Technology/D	**K. Ohto** Saga University/J
11:00	**O. Pecheur** Commissariat à l'Energie Atomique de Marcoule/F	**J. Villwock** TU Berlin/D	**S.B. Pérez-Vega** Autonomous University of Chihuahua/MEX	**G. Cote** ENSCP/F
11:25	**M. Miguirditchian** CEA/F	**J. Kamp** TU Berlin/D	**Y. Saotome** University, Kameino/J	**L. Li** Tsinghua University/CHN
11:50	LUNCH BREAK			
	Franconia lecture hall			
13:20	**M.W. Hlawitschka** – University of Kaiserslautern/D			
13:50	**J. Herguijuela** – Sulzer Chemtech AG/CH			
14:20	COFFEE BREAK			
	Franconia lecture hall	Room Tiepolo	Room Auvera/Bossi/Wagner	Room Neumann
				CFD applications
14:50	**S. Archer** DRA Mineral Projects (Pty) Ltd/ZA	**J.P. Simonin** Université P.M. Curie, Paris/F	**Y. Du** University of Twente/NL	**E. Keshavarz Alamdari,** Amirkabir University of Technology/IR
15:15	**N. Davidson** Johnson Matthey/UK	**R. Poirot** CEA/ICSM/LCPA/F	**F. Deng** Chinese Academy of Sciences/CHN	**E. Sanz** IFP Energies nouvelles/F
15:40	**J. Yang** Chalmers University of Technology/S	**K. Wieszczycka** Poznan University of Technology/PL	**S. Bassil** Laboratoire de Chimie Agro-Industrielle/F	**E. Aksamija** Graz University of Technology/A
16:05	**R. Luckay** University of Stellenbosch/ZA	**A. Klamt** COSMOlogic GmbH & Co. KG/D	**S. Mohammad** TU Dortmund/D	**S. Charton** CEA/F
16:30	COFFEE BREAK AND SNACKS			
			Nuclear fuel reprocessing	
17:00	**M. Siebenhofer** Graz University of Technology/A	**N. Paul** TU Berlin/D	**K. Nash** Washington State University/USA	**H. Chen** East China University of Science and Technology/CHN
17:25	**J. Lipp** Tenova Bateman Technologies, Yokneam/IL	**D. Ibana** Curtin University/AUS	**Y. Sasaki** Japan Atomic Energy Agency/J	**S. Miskovic** University of Utah/USA
17:55	**J.P.J. Matinheikki** Outotec (Finland) Oy/FIN	**H. Cui** Chinese Academy of Sciences, Changchun/CHN	**C. Sorel** CEA/F	**E. Keshavarz Alamdari,** Amirkabir University of Technology/IR
19:00	**CONFERENCE DINNER** (19:00 – 23:00)			

Thursday, 11 September 2014

	Franconia lecture hall			
8:30	**R. Grant** – Johnson Matthey Technology Centre/UK			
9:15	COFFEE BREAK AND SNACKS			
	Room Auvera/Bossi/Wagner	Room Neumann	Room Tiepolo	Franconia lecture hall
	Hydrometallurgy and metals extractions	**Nuclear fuel reprocessing**	**Process Chemistry and Engineering**	**Novel reagents, materials and techniques**
9:45	**C.Y. Cheng** CSIRO/AUS	**B. Moyer** Oak Ridge National Laboratory/USA	**M. Haneke** Evonik Industries AG/D	**P. Zalupski** Idaho National Laboratory,/USA
10:10	**E.M.R. Araújo** Universidade Federal de Minas Gerais/BR	**S. Baker** EnergySolutions plc,/USA	**M. Weber** Ineos Phenol GmbH/D	**L. Berthon** CEA Marcoule, Bagnols- sur-Ceze/F
10:35	**M.A. Halim** Process Research ORTECH Inc., Mississauga/CDN	**K. Nee** University of California/USA	**G.W. Stevens** The University of Melbourne/AUS	**H. M. Krieg** North-West University/ZA
11:00	**Y. Baba** Kyushu University, Fukuoka/J	**S.P. Mezyk** California State University/USA	**A. Boam** Evonik Membrane Extraction Technology Ltd./UK	**A. Paiva** University of Lisbon/P
11:25	**S.M.M. Noori** University of Tehran/IR	**M. Nilsson** University of California/USA	**A. Matsuoka** Kobe Steel, LTD./J	**P. Tasker** University of Edinburgh/UK
11:50	LUNCH BREAK			
	Franconia lecture hall			
13:20	**B. Grinbaum** – Yokneam/IL			
13:50	Award Session			
14:20	COFFEE BREAK			
	Room Tiepolo	Room Neumann	Franconia lecture hall	Room Auvera/Bossi/Wagner
				Biotechnology, pharmaceutical, life science and organic products
14:50	**B. Onghena** Heverlee/B	**G.J. Lumetta** Pacific Northwest National Laboratory, Richland/USA	**E. Pecharroman** Tecnicas Reunidas/E	**N. Dobrin** Tenova Bateman Technologies/IL
15:15	**A. Trofimenko** Belarusian State University/BY	**M. Nilsson** University of California/USA	**L. John** DRA Mineral Projects (Pty) Ltd., Johannesburg/ZA	**S. Ignatova** Brunel University/UK
15:40	**S. Dourdain** University of Montpellier/F	**S. Mezyk** California State University/USA	**K. Babic** DSM/NL	**D. Glatz** Koch Modular Process Systems, LLC/USA
16:05	**H. Hein** Oryxeio Ingeniéria Limitada, Providencia/RCH	**M. Ozawa** Tokyo Institute of Technology/J	**M.F. Vancas** Tenova Bateman Technologies MESA/USA	**P. Scherübel** Graz University of Technology/A
16:35	CLOSING CEREMONY			
16:45	End of Conference			

Monday, 8 September 2014

Franconia lecture hall

Chair: K. Gloe, TU Dresden/D

08:30	**OPENING**
08:40	**Strategies for selective liquid-liquid anion exchange** B. Moyer, Oak Ridge National Laboratory, TN/USA
09:25	COFFEE BREAK AND SNACKS

	Franconia lecture hall	Room Neumann
	Hydrometallurgy and metals extractions	**Nuclear fuel reprocessing**
	Chair: K. Gloe/TU Dresden/D	*Chair: A. Geist, Karlsruher Institut für Technologie - KIT/D*
09:55	**Ionic liquid technology for metal separation and NdFeB magnet recycling** T. Van der Hoogerstraete, K. Binnemans, University of Leuven, Heverlee/B	**Separation of trivalent actinides from lanthanides: current progress and trends** T. Todd, Idaho National Laboratory, Idaho Falls, ID/USA
10:20	**Separation of rare earth elements using Cyanex 572** J. Quinn, K. Soldenhoff, Australian Nuclear Science and Technology Organisation, Sydney/AUS; G. Stevens, The University of Melbourne/AUS	**Synthesis and characterization of a new nitrogen-containing ligand for actinide/lanthanide separations** K. Nash, J. Muller, Washington State University, Pullman, WA/USA
10:45	**Recovery of In, Y, Nd and Eu from WEEE by solvent extraction** J. Yang, C. Ekberg, T. Retegan, Chalmers University of Technology, Gothenburg/S	**Separation of americium from a concentrated raffinate by liquid-liquid extraction** C. Marie, M.-T. Duchesne, CEA, Bagnols sur Cèze/F; S. Watanabe, JAEA, Tokai Mura/J; V. Pacary, V. Vanel, M. Montuir, D. Rudloff, M. Bertrand, M. Miguirditchian, CEA, Bagnols sur Cèze/F
11:10	**Innovative process for the recovery of rare earth elements using mixed chloride leach process** V.I. Lakshmanan, R. Sridhar, J. Chen, M.A. Halim, Process Research ORTECH Inc., Mississauga/CDN	**Spiked laboratory-scale continuous counter-current centrifugal contactor demonstration of a novel innovative-SANEX process** A. Wilden, G. Modolo, P. Kaufholz, F. Sadowski, S. Lange, M. Sypula, D. Bosbach, Forschungszentrum Jülich GmbH/D; D. Magnusson, U. Müllich, A. Geist, Karlsruhe Institute of Technology (KIT)/D
11:35	**Effects of operating conditions in the solvent extraction process to separate rare earth metals** R. Egashira, H. Habaki, Tokyo Institute of Technology, Meguro/J	**A new system for separating americium from PUREX raffinate** C. Wagner, Universität Heidelberg/D; U. Müllich, Karlsruhe Institute of Technology (KIT)/D; P.J. Panak, Universität Heidelberg/D; A. Geist, Karlsruhe Institute of Technology (KIT)/D
12:00	LUNCH BREAK	

Monday, 8 September 2014

Franconia lecture hall

Chair: K. Gloe, TU Dresden/D

08:30	**OPENING**
08:40	**Strategies for selective liquid-liquid anion exchange** B. Moyer, Oak Ridge National Laboratory, TN/USA
09:25	COFFEE BREAK AND SNACKS

	Room Auvera/Bossi/Wagner	Room Tiepolo
	Fundamentals/Novel reagents, materials and techniques	**Extraction on mini-scale**
	Chair: N. Dobrin, Tenova Bateman Technologies, Yokneam/IL	*Chair: M. Kraume, TU Berlin*
09:55	**Fluorinated malonamides for L/L extraction of f-elements** M.C. Dul, D. Bourgeois, S. Dourdain, S. Pellet-Rostaing, D. Meyer, ICSM, Bagnols-sur-ceze/F	**Process development of enantioselective extraction of aromatic acids in intensified lab columns** A. Holbach, J. Godde, N. Kockmann, TU Dortmund/D
10:20	**Liquid-liquid extraction of Rh(III) from chloride medium using tetralkyl phosphonium salts as extractants** J. Mendez-Quezada, D. Cholico-Gonzalez, S. Gutiérrez-Granados, P. Gonzalez, R. Navarro, I. Saucedo, Universidad de Guanajuato/MEX; C. Ponce de León, University of Southampton/UK; M. Avila-Rodriguez, Universidad de Guanajuato/MEX	**A flat channel membrane microcontactor for liquid-liquid extraction** J. Hereijgers, Vrije Universiteit Brussel/B; T. Breugelmans, University of Antwerp/B; W. De Malsche, Vrije Universiteit Brussel/B
10:45	**Investigation of carriers for supported liquid membrane extraction of rare earth elements** M. Mohammadi, J. Martínez, K. Forsberg, A. Rasmuson, KTH Royal Institute of Technology, Stockholm/S	**Process intensification of high-phase-ratio extraction with gas-liquid-liquid microdispersion system** J. Tan, J.H. Xu, G.S. Luo, Tsinghua University, Beijing/CHN
11:10	**Intermittent counter-current extraction in continuous downstream processing** P. Hewitson, I.A. Sutherland, S. Ignatova, Brunel University, Uxbridge/UK	**Intensification of mass transfer by coupling membrance dispersion and microbeads packed column for high two-phase ratio system** G. Liu, J. Tang, G.S. Luo, Tsinghua University, Beijing/CHN
11:35	**Investigations of water-soluble Schiff base ligands for the separation of actinyl and non-actinyl cations** C.A. Hawkins, C. Bustillos, University of California/USA; R. Copping, I. May, Los Alamos National Laboratory, NM/USA; M. Nilsson, University of California/USA	**Influence of plate wettability on the performance of a pulsed disc and doughnut column** T. Grabin, K. Smith, K. Mumford, Y. Wang, G. Stevens, The University of Melbourne/AUS
12:00	LUNCH BREAK	

Monday, 8 September 2014

Franconia lecture hall

Chair: A. Pfennig, Graz University of Technology/A

13:30	**The hydrometallurgical co-separation of neptunium, plutonium, americium, and curium by the EURO-GANEX process** R. Malmbeck, European Commission, Joint Research Centre, ITU, Karlsruhe/D; M. Carrott, National Nuclear Laboratory, Sellafield/UK; A. Geist, Karlsruhe Institute of Technology (KIT)/D; X. Hérès, Commissariat à l`Énergie Atomique et aux Énergies Alternatives, Marcoule/F; D. Magnusson, Karlsruhe Institute of Technology (KIT)/D; G. Modolo, Forschungszentrum Jülich GmbH/D; C. Sorel, Commissariat à l`Énergie Atomique et aux Énergies Alternatives, Marcoule/F; R. Taylor, National Nuclear Laboratory, Sellafield/UK; A. Wilden, Forschungszentrum Jülich GmbH/D
14:00	**Liquid-liquid extraction design under uncertainty** B. Rüngeler, RWTH Aachen/D; A. Pfennig, TU Graz/A
14:30	COFFEE BREAK

	Franconia lecture hall	Room Neumann
	Hydrometallurgy and metals extractions	**Nuclear fuel reprocessing**
	Chair: C. Ekberg, Nuclear Chemistry, Göteborg/S	*Chair: S. Charton, CEA Marcoule, Bagnols-sur-Cèze/F*
15:00	**Recovery of La, Ce, Eu, Gd, Tb and Y from fluorescent lamp waste using solvent extraction: solvent choice studies** C. Tunsu, C. Ekberg, M. Gregoric, T. Retegan, Chalmers University of Technology, Göteborg/S	**Stability and recyclability of SO_3-Ph-BTP for i-SANEX process development** H. Galán, Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, Madrid/E; D. Munzel, Karlsruhe Institute of Technology/D; A. Núñez, Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, Madrid/E; U. Müllich, Karlsruhe Institute of Technology/D; J. Cobos, Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, Madrid/E; A. Geist, Karlsruhe Institute of Technology/D
15:25	**Kinetic non-equilibrium extraction and separation of praseodymium and neodymium by a novel gas-assistant column extractor** K. Huang, H.Z. Liu, Chinese Academy of Sciences, Beijing/CHN	**Process development studies towards an r-SANEX process using C_5-BPP – selective separation of trivalent actinides from lanthanides** A. Wilden, G. Modolo, F. Sadowski, S. Lange, Forschungszentrum Jülich GmbH/D; A. Bremer, P. Panak, A. Geist, Karlsruhe Institute of Technology (KIT)/D
15:50	**New extractants applicable to industrial solvent extraction process for rare metal separation** M. Goto, Y. Baba, F. Kubota, Kyushu University, Fukuoka/J	**Development and testing of an Am/Ln separation flowsheet based on Am oxidation with sodium bismuthate** J. Law, B. Mincher, T. Garn, M. Greenhalgh, V. Rutledge, Idaho National Laboratory, Idaho Falls, ID/USA
16:15	**Continuous piloting to recover nickel from Çaldağ Nikel leach solution using the Nicksyn™ and versatic 10 acid synergistic solvent extraction system** K. Larmour-Ship, Tenova Bateman Technologies, Yokneam/IL; C. Er, Caldag Nikel, Manisa/TR; M. Koetze, Mintek, Johannesburg/ZA; A.C. du Preez, Mintek, Johannesburg/ZA	**Kinetics extraction of uranium(VI) and plutonium(IV) by N,N-dialkylamides using the single drop method** R. Berlemont, A. Lelias, M. Miguirditchian, CEA Marcoule, Bagnols-sur-Ceze/F; J.-P. Simonin, Université P-M. Curie, Paris/F
16:40	COFFEE BREAK AND SNACKS	

Monday, 8 September 2014

Franconia lecture hall

Chair: A. Pfennig, Graz University of Technology/A

13:30	**The hydrometallurgical co-separation of neptunium, plutonium, americium, and curium by the EURO-GANEX process** R. Malmbeck, European Commission, Joint Research Centre, ITU, Karlsruhe/D; M. Carrott, National Nuclear Laboratory, Sellafield/UK; A. Geist, Karlsruhe Institute of Technology (KIT)/D; X. Hérès, Commissariat à l`Énergie Atomique et aux Énergies Alternatives, Marcoule/F; D. Magnusson, Karlsruhe Institute of Technology (KIT)/D; G. Modolo, Forschungszentrum Jülich GmbH/D; C. Sorel, Commissariat à l`Énergie Atomique et aux Énergies Alternatives, Marcoule/F; R. Taylor, National Nuclear Laboratory, Sellafield/UK; A. Wilden, Forschungszentrum Jülich GmbH/D
14:00	**Liquid-liquid extraction design under uncertainty** B. Rüngeler, RWTH Aachen/D; A. Pfennig, TU Graz/A
14:30	COFFEE BREAK

	Room Auvera/Bossi/Wagner	Room Tiepolo
	Fundamentals/Novel reagents, materials and techniques	**Extraction on mini-scale**
	Chair: A. Pfennig, Graz University of Technology/A	*Chair: G. Luo, Tsinghua University, Beijing/RC*
15:00	**Analyzing the sedimentation and coalescence behavior of polydisperse droplets in opaque systems using ultrasonic technique** P. Chuttrakul, A. Pfennig, Graz University of Technology/A	**Cesium separations with crown ether derivatives containing aromatic groups** Y. Miyazaki, T. Kobayashi, S. Suzuki, H. Shiwaku, M. Awual, Y. Okamoto, R. Motokawa, T. Yaita, Japan Atomic Energy Agency, Hyogo/J
15:25	**Novel magnetic and optical measurements of liquid-liquid interfacial reactions** H. Watarai, Osaka University/J	**Lanthanide separations by functionalized mesoporous silica-transportations and coordination** M. Awual, T. Kobayashi, H. Shiwaku, Y. Miyazaki, R. Motokawa, S. Suzuki, Y. Okamaoto, T. Yaita, Japan Atomic Energy Agency, Hyogo/J
15:50	**Zinc(II) ions recovery from multimetal acidic chloride solutions using pyridynium ketoximes** K. Wieszczycka, A. Wojciechowska, M. Krupa, Poznan University of Technology/PL	**Process intensification of light rare earth metals extraction via gas-liquid-liquid microdispersion system** Y. Wang, Tsinghua University, Beijing/CHN
16:15	**Synthesis of a new extractant with phenyl-phosphinic acid and selective extraction of In(III) and Ga(III) over Zn(II) from acidic media** Y. Baba, A. Koshimoto, T. Oshima, University of Miyazaki/J	**Liquid-liquid microflow patterns and mass transfer of two radionuclides: uranium (VI) and europium (III)** G. Hellé, C. Mariet, CEA Saclay, Gif-sur-Yvette/F; G. Cote, Chimie ParisTech, Paris/F
16:40	COFFEE BREAK AND SNACKS	

Monday, 8 September 2014

	Franconia lecture hall	Room Neumann
	Hydrometallurgy and metals extractions	**Nuclear fuel reprocessing**
	Chair: G. A. Kordosky, Henkel Corporation, Tucson/USA	*Chair:S. Ortiz, Imperial College London/UK*
17:10	**A clean production process for tungsten hydrometallurgy based on the new technology of direct solvent extraction from alkaline medium** G.Q. Zhang, W.J. Guan, L.S. Xiao, Q.X. Zhang, Central South University, Changsha/CHN	**New thermodynamics data related to actinides separation** M.C. Charbonnel, N. Boubals, F. Rodrigues, L. Berthon, P. Guilbaud, CEA, Bagnols-sur-ceze/F
17:35	**Recovery of rare earths from acid leach solutions of spent nickelmetal hydride batteries using solvent extraction** L. Zeng, Y. Xia, L. Xiao, J. Tian, Z. Li, Central South University, Changsha/CHN	**Extraction chromatographic separation of Am(III) and Eu(III) by porous silica coating TPPEN-NIPA Gel (2) chromatographic column tests** K. Takeshita, H. Oaki, Tokyo Institute of Technology/J; T. Yaita, S. Suzuki, S. Koyama, Japan Atomic Energy Agency, Tokai/J; A. Mori, Kobe University/J
18:05	**Modeling and simulation of molybdenum extraction by ion-exchanger and solvating extractant** V. Vanel, C. Marie M.T. Duchesne, X. Hérès, V. Pacary, L. Berthon,D. Rudloff, M. Bertrand, CEA, Bagnols-sur-ceze/F; S. Watanabe, JAEA, Tokai-mura/J	**"TRU-SANEX": a variation on the EURO-GANEX process for heterogeneous recycling scenarios** K. Bell, J. Brown, C. Campbell, M. Carrott, C. Gregson, J. Holt, C. Maher, C. Mason, M. Sarsfield, R. Taylor, National Nuclear Laboratory, Seascale/UK
18:30	COFFEE BREAK	
18:30 – 21:00	**POSTER PARTY**	

Monday, 8 September 2014

	Room Auvera/Bossi/Wagner	Room Tiepolo
	Fundamentals/Novel reagents, materials and techniques	**Extraction on mini-scale**
	Chair: W. Riedl, Fachhochschule Nordwestschweiz, Muttenz/CH	*Chair: E. Kenig, University Paderborn/D*
17:10	**Phase equilibria of innovative solvent systems for homogenous catalysis** O. Riechert, T. Zeiner, G. Sadowski, TU Dortmund/D	**Comprehensive numerical and experimental analysis of copper solvent extraction in Y-Y microreactors** P.R. Martins Bento, University of Utah, Salt Lake City, UT/USA; O. Kazemi, Amirkabir University of Technology, Tehran/IR; S. Miskovic, University of Utah, Salt Lake City, UT/USA
17:35	**Recycling metals by controlled transfer of ionic species between complex fluids** S. Dourdain, T. Zemb, University of Montpellier 2, Bagnols-sur-ceze/F	**Extraction and throughput for micro-solvent extraction of platinum using a single chip and a multi-chip module** C. Priest, F.H. Kriel, S.F. Hashmi, L. Parkinson, J. Ralston, University of South Australia, Mawson Lakes/AUS; S. Woollam, N. Plint, Anglo Research, Germiston/ZA; R.A. Grant, P. Ash, Johnson Matthey Technology Centre, Reading/UK
18:05	**Polymer/ionic liquid composite membranes for olefin selective separation** D. Gorri, R. Zarca, A. Ortiz, I. Ortiz, University of Cantabria, Santander/E	**Membrane microcontactors for multi-stage countercurrent extraction** J. Hereijgers, Vrije Universiteit Brussel/B; T. Breugelmans, University of Antwerp/B; W. De Malsche, Vrije Universiteit Brussel/B
18:30	COFFEE BREAK	
18:30 – 21:00	**POSTER PARTY**	

Tuesday, 9 September 2014

Franconia lecture hall

Chair: H.-J. Bart, TU Kaiserslautern/D

08:30	**Recovery of minor metals from secondary sources using solvent extraction** E. Paatero, Outotec Oyj, Espoo/FIN; S. Virolainen, Lappeenranta University of Technology/FIN
09:15	COFFEE BREAK AND SNACKS

	Franconia lecture hall	Room Neumann
	Novel reagents, materials and techniques	**Fundamentals**
	Chair: H.-J. Bart, TU Kaiserslautern/D	*Chair: S. Enders, TU Berlin/D*
09:45	**Specific phenomena in extraction of organic acids with ionic liquids and formulation of solvents for extractive separations** S. Schlosser, M. Blahusiak, J. Marták, Slovak University of Technology, Bratislava/SK	**Flow modification induced by the presence of droplets in Taylor-Couette flows** D. Dherbecourt, M. Nemri, S. Charton, CEA, Bagnols-sur-ceze/F; E. Climent, IMFT, Toulouse/F
10:10	**Sponge-like ionic liquids. A new platform for synthesis and pure product separation** P. Lozano, J.M. Bernal, University of Murcia/E; E. Garcia-Verdugo, University Jaume I, Castellon/E; G. Sanchez, University of Murcia/E; M.I. Burguete, S.V. Luis, University Jaume I, Castellon/E	**A numerical investigation of the impact of Marangoni convection on oscillating rising droplets in liquid/liquid systems** R.F. Engberg, University of Paderborn/D; M. Wegener, TU Berlin/D; E.Y. Kenig, University of Paderborn/D
10:35	**Design of novel ionic liquids solvents for the selective recovery of carbon monoxide** G. Zarca, I. Ortiz, A. Urtiaga, University of Cantabria, Santander/E	**Analysis of drop breakage in turbulent flow** M. Kraume, S. Nachtigall, TU Berlin/D
11:00	**Factors influencing the modes of metal ion partitioning into room-temperature ionic liquids** M. Dietz, University of Wisconsin – Milwaukee, WI/USA	**Interfacial dynamic in liquid/liquid extraction processes probed by non-linear optics** O. Diat, P.M. Gassin, ICSM, Bagnols-sur-ceze/F; G. Martin-Gassin, ICGM, Montpellier 2/F; J.F. Dufreche, ICSM, Bagnols-sur-ceze/F; L. Couston, F. Canto, CEA Marcoule, Bagnols-sur-ceze/F; E. Benichou, P.F. Brevet, ILM, Villeurbanne/F
11:25	**Kinetics and mechanism of enantioselective extraction of amino acid by organometallic complex** M. Gramblicka, S.R.A. Kersten, University of Twente, Enschede/NL; H.J. Heeres, University of Groningen/NL; B. Schuur, University of Twente, Enschede/NL	**Prediction of interfacial properties in demixed ternary system** T. Grunert, S. Enders, TU Berlin/D
11:50	LUNCH BREAK	
13:50	**Excursion**	

Tuesday, 9 September 2014

Franconia lecture hall

Chair: H.-J. Bart, TU Kaiserslautern/D

08:30 **Recovery of minor metals from secondary sources using solvent extraction**
E. Paatero, Outotec Oyj, Espoo/FIN; S. Virolainen, Lappeenranta University of Technology/FIN

09:15 COFFEE BREAK AND SNACKS

	Room Auvera/Bossi/Wagner	Room Tiepolo
	Process chemistry and engineering	**Biotechnology, pharmaceutical, life science and organic products**
	Chair: D. Pfeiffer, BASF SE Ludwigshafen/D	*Chair: A. de Haan, Delft University of Technology/NL*
09:45	**Evaluation of a hydrocyclone technology for separation of industrial extraction systems** E.W. Barega, E. Zondervan, A.B. de Haan, Eindhoven University of Technology/NL; W. Hoek, Lyondell Basell, Rotterdam/NL; K. Babic, DSM, Geleen/NL	**Centrifugal partitioning chromatography – multistage aqueous two phase extraction of biopharmaceutical products** C. Ladd Effio, S.A. Oelmeier, J. Hubbuch, Karlsruhe Institute of Technology (KIT)/D
10:10	**Operating window of a multistage rotor-rotor spinning disc extractor** W. Hengeveld, J. Vissers, R. van Kouwen, Spinid B.V., Eindhoven/NL; K. Babic, DSM, Geleen/NL; J.C. Schouten, J. van der Schaaf, Eindhoven University of Technology/NL	**Multistage monoclonal antibody purification by aqueous two-phase extraction – experiment and modeling** J. Mündges, J. Zierow, T. Zeiner, TU Dortmund/D
10:35	**Investigation of the reactive extraction of terpenylamines with an acid-base reaction** R. Schulz, R. Bongard, B. Szemplinski, T. Zeiner, A. Górak, TU Dortmund/D	**Predicting phase behavior of aqueous-protein solutions** C. Brandenbusch, C. Kress, G. Sadowski, TU Dortmund/D
11:00	**Citric acid extraction by liquid surfactant membranes in a continuous pilot plant** C. Konzen, J.S. Barbosa, Universidade Federal de Minas Gerais, Belo Horizonte/BR; L.C. Meira-Melo, Centro de Desenvolvimento de Tecnologia Nuclear, Belo Horizonte/BR; E.M.R. Araújo, J.C. Balarini, T.L.S. Miranda, A. Salum, Universidade Federal de Minas Gerais, Belo Horizonte/BR	**Ionic liquid-based three phase partitioning for protein recovery** E. Alvarez-Guerra, A. Irabien, Universidad de Cantabria, Santander/E
11:25	**The use of option trees for the selection of solvents and reactive extractants for the design of biocompatible separation processes** A. Bednarz, RWTH Aachen/D; P. Scherübel, TU Graz/A; A. Spieß, RWTH Aachen/D; A. Pfennig, TU Graz/A	**Scalable technology for the extraction of pharmaceuticals** S. Ignatova, P. Hewitson, Brunel University, Uxbridge/UK; C. Thickett, N. Douillet, D. Johns, K. Freebairn, GlaxoSmithKline, Stevenage/UK; P. Wood, G. Harris, D. Rooke, Dynamic Extractions Ltd., Slough/UK; R. Brown, Pfizer Ltd., Sandwich/UK; I. A. Sutherland, Brunel University, Uxbridge/UK
11:50	LUNCH BREAK	
13:50	**Excursion**	

Wednesday, 10 September 2014

Franconia lecture hall

Chair: J. Stube, TU Clausthal/D

08:30	**Green solvents for natural products extraction** F. Chemat, Avignon University/F
09:15	COFFEE BREAK AND SNACKS

	Franconia lecture hall	Room Tiepolo
	Hydrometallurgy and metals extractions	**Fundamentals**
	Chair: G. Modolo, Forschungszentrum Jülich GmbH/D	*Chair: M.B. Mansur, Uni. Fed. de Minas Gerais, Belo Horizonte/BR*
09:45	**Process for uranium recovery from mixed sulfate/chloride media** J. Quinn, K. Soldenhoff, ANSTO, Sydney/AUS	**Combined sedimentation and mass-transfer experiments with a concentration gradient in the continuous phase** E. Cvetkovic, A. Pfennig, Graz University of Technology/A
10:10	**Enhanced extraction of uranium from phosphoric acid with synergistic solvent mixture of DNPPA and bidentate octyl (phenyl) CMPO** D. Singh, S. Mondal, M. Anitha, J. Sharma, H. Singh, Bhabha Atomic Research Centre, Mumbai/IND	**Prediction of holdup, droplet diameter and axial mixing in a rotating disc contactor** H. Chen, Z. Sun, G. Lu, X. Song, J. Yu, East China University of Science and Technology, Shanghai/CHN
10:35	**Revisited physicochemistry of uranium (VI) extraction from wet phosphoric acid by D2EHPA-TOPO** D. Beltrami, G. Cote, ENSCP, Paris/F; H. Mokhtari, B. Courtaud, Areva, Bessines sur Gartempe/F; A. Chagnes, ENSCP, Paris/F	**Ionic influence on coalescence and repulsion behavior in liquid-liquid dispersions** F. Gebauer, University of Kaiserslautern/D; J. Villwock, J. Kamp, TU Berlin/D; H.-J. Bart, University of Kaiserslautern/D; M. Kraume, TU Berlin/D
11:00	**Comprehension of synergistic mechanisms for uranium extraction from phosphoric ores** O. Pecheur, D. Guillaumont, Commissariat à l'Energie Atomique de Marcoule, Bagnols-sur-ceze/F; S. Dourdain, Institut de Chimie Séparative de Marcoule, Bagnols-sur-ceze/F; F. Testard, Commissariat à l'Energie Atomique de Saclay, Gif-sur-Yvette/F	**Influence of ion species and ionic strength on the dynamic coalescence of single drops** J. Villwock, J. Kamp, M. Kraume, TU Berlin/D; F. Gebauer, H.-J. Bart, University of Kaiserslautern/D
11:25	**New process for the selective extraction of uranium from phosphoric ores** G. Bernier, M. Miguirditchian, C. Balaguer, X. Hérès, V. Pacary, M. Bertrand, B. Camès, CEA, Bagnols-sur-ceze/F; H. Mokhtari, AREVA NC, Bessines-sur-Gartempe/F	**Impact of drop size and relative velocity on coalescence in liquid/liquid dispersions** J. Kamp, J. Villwock, M. Kraume, TU Berlin/D
11:50	LUNCH BREAK	

Franconia lecture hall

Chair: J. Koch, Sulzer Chemtech AG, Allschwil/CH

13:20	**1D to 3D CFD extraction column design – state-of-the-art and future challenges** M.W. Hlawitschka, H.-J. Bart, University of Kaiserslautern/D
13:50	**Changing physical properties – a challenge for extraction equipment and processes** J. Herguijuela, J. Koch, Sulzer Chemtech AG, Allschwil/CH
14:20	COFFEE BREAK

Wednesday, 10 September 2014

Franconia lecture hall

Chair: J. Stube, TU Clausthal/D

08:30	**Green solvents for natural products extraction** F. Chemat, Avignon University/F
09:15	COFFEE BREAK AND SNACKS

	Room Auvera/Bossi/Wagner	Room Neumann
	Extraction of natural products from plants	**Novel reagents, materials and techniques**
	Chair: J. Stube, TU Clausthal/D	*Chair: M. Häberl, Merck KGaA, Darmstadt/D*
09:45	**Optimizing plant-material extraction processes** J.B. Bol, A. Pfennig, Graz University of Technology/A	**Recovery of germanium from synthetic leach solution of zinc refinery residue using novel synergistic solvent extraction** S. Nusen, CSIRO, Perth/AUS; T. Chairuangsri, Chiang Mai University/T; Z. Zhu, C.Y. Cheng, CSIRO, Perth/AUS
10:10	**Solvent extraction optimization of added value components from oats: scale up perspective** R. Orozco Mena, E. Ortega Rivas, S. Pérez Vega, Autonomous University of Chihuahua/MEX	**A new process design for lignite extraction by immersion** M. Wollmerstädt, F. Fehse, V. Herdegen, H.-W. Schröder, TU Bergakademie Freiberg/D; T. Naundorf, ROMONTA Unternehmensgruppe, Seegebiet Mansfelder Land/D; J.-U. Repke, TU Bergakademie Freiberg/D
10:35	**Surfactant-based extraction of microalgae products** R. Racheva, Hamburg University of Technology/D; M. Kerner, SSC Ltd., Hamburg/D; I. Smirnova, Hamburg University of Technology/D	**Lithium discriminating extraction with tripropyl-monoacetic acid derivative of calix[4] arene** K. Ohto, H. Sadamatsu, S. Morisada, H. Kawakita, Saga University/J
11:00	**Enhanced early stage solvent selection and evaluation in the extraction of peanut skin polyphenols** S.A. Medina-González, H.F. Almeida-Trasviña, I. Salmerón-Ochoa, S.B. Pérez-Vega, Autonomous University of Chihuahua/MEX	**New reagents for uranium(VI) extraction from concentrated phosphoric acid** D. Beltrami, A. Chagnes, ENSCP, Paris/F; H. Mokhtari, B. Courtaud, Areva, Bessines sur Gartempe/F; G. Cote, ENSCP, Paris/F
11:25	**Extraction of apigenin from dried parsley (Petroselinum crispum L.) powder by water, organic solvent and supercritical carbon dioxide** Y. Saotome, M. Imai, Nihon University, Kameino/J	**Synthesis of high purity didecylphosphinic acid for extraction of heavy rare earth** L. Li, S. Xu, X. Wang, X. Liu, Tsinghua University, Beijing/CHN
11:50	LUNCH BREAK	

Franconia lecture hall

Chair: J. Koch, Sulzer Chemtech AG, Allschwil/CH

13:20	**1D to 3D CFD extraction column design – state-of-the-art and future challenges** M.W. Hlawitschka, H.-J. Bart, University of Kaiserslautern/D
13:50	**Changing physical properties – a challenge for extraction equipment and processes** J. Herguijuela, J. Koch, Sulzer Chemtech AG, Allschwil/CH
14:20	COFFEE BREAK

Wednesday, 10 September 2014

	Franconia lecture hall	Room Tiepolo
	Hydrometallurgy and metals extractions	**Fundamentals**
	Chair: M. O. Garg, CSIR-Indian Institute of Petroleum/IN	*Chair: M. Siebenhofer, Graz University of Technology/A*
14:50	**Solvent extraction versus nano-filtration for upgrading uranium and recovery of acid from an ion exchange eluate** S. Archer, V. Coetzee, DRA Mineral Projects (Pty) Ltd, Johannesburg/ZA; A. Feather, BASF, Johannesburg/ZA; A. Manis, ANSTO, Sydney/AUS	**Kinetics of liquid/liquid extraction of europium(III) cation by two malonic diamides** J.P. Simonin, Université P.M. Curie, Paris/F
15:15	**Novel solvent extraction process for the recovery of gold from chloride media** N. Davidson, B. Eade, R.A. Grant, Johnson Matthey, Reading/UK	**Palladium-malonamides: molecular aspects of L/L extraction** R. Poirot, CEA/ICSM/LCPA, Bagnols-sur-Ceze/F; D. Bourgeois, CNRS/ICSM/LCPA, Bagnols-sur-Ceze/F; D. Meyer, CEA/ICSM/LCPA, Bagnols-sur-Ceze/F
15:40	**Metal separation from e-waste by solvent extraction with CYANEX 471X** J. Yang, S. Kosaraju, C. Ekberg, S. Allard, T. Retegan, Chalmers University of Technology, Gothenburg/S	**Selective extraction of copper(II) from ammonia solution** K. Wieszczycka, M. Krupa, A. Wojciechowska, A. Olszanowski, Poznan University of Technology/PL
16:05	**Outer-sphere coordination chemistry: use of amido-ammonium ligands as selective extractants for prescious metals** R. Luckay, University of Stellenbosch/ZA; P. Tasker, G. Murray, M.A. Wilson, W. Roebuck, J.R. Turkington, J.B. Love, University of Edinburgh/UK	**COSMO-RS as a powerful tool for solvent screening and liquid extraction simulation** A. Klamt, F. Eckert, J. Reinisch, COSMOlogic GmbH & Co. KG, Leverkusen/D
16:30	COFFEE BREAK AND SNACKS	
	Chair: G. M. Ritcey, Nepean/CDN	*Chair: M. Weber, Ineos Phenol GmbH, Gladbeck/D*
17:00	**Recycling of Co_2^+, Cu_2^+ and Li^+ from Li-ion battery scrap** M. Siebenhofer, Graz University of Technology/A; H. Noll, AVL, Graz/A; M. Fritz, Epcos, Deutschlandsberg/A	**Influences of interfacial phenomena on transport processes in micellar liquid/liquid systems** N. Paul, S.-J. Kim, M. Kraume, TU Berlin/D
17:25	**LiSX™: A breakthrough in lithium production** J. Lipp, Tenova Bateman Technologies, Yokneam/IL	**Electrostatically induced droplet agitation in solvent extraction** S. Assmann, D. Ibana, Curtin University, Kalgoorlie/AUS; C. McRae, Macquarie University, Sydney/AUS
17:55	**Modular Mixer-Settler technology for medium scale satellite mining operations** J.P.J. Matinheikki, R.T. Saario, H.M. Fredriksson, Outotec (Finland) Oy, Espoo/FIN	**Preparation of the novel ionic liquids functionalized resins with tunable structure for metal ions separation** H. Cui, J. Chen, Y. Liu, Chinese Academy of Sciences, Changchun/CHN
19:00 23:00	**Conference Dinner**	

Wednesday, 10 September 2014

	Room Auvera/Bossi/Wagner	Room Neumann
	Extraction of natural products from plants	**CFD applications**
	H. Liu, Chinese Academy of Sciences, Beijing/RC	*Chair: J. Koch, Sulzer Chemtech AG, Allschwil/CH*
14:50	**2-Dibutylaminoethanol as a switchable solvent for lipid extraction from *Desmodesmus* sp.** Y. Du, K. Tran, B. Schuur, D.W.F. Brilman, University of Twente, Enschede/NL	**CFD simulation of mixer-settler systems; evaluation of the effect of fluid's velocity on the flow pattern and phase separation** O. Kazemi, E. Keshavarz Alamdari, Amirkabir University of Technology, Tehran/IR
15:15	**Microwave-assited and cloud point extraction and separation of active ingredients from natural products** F. Deng, X. Liang, C. Hua, H. Liu, Chinese Academy of Sciences, Beijing/CHN	**Experimental and CFD study of drop formation at high jet velocity** E. Sanz, P. Béard, F. Augier, M. Le Möel, D. Leinekugel-Le-Cocq, A. Baudot, IFP Energies nouvelles, Solaize/F
15:40	**Valorization of hemp wood to obtain high value bioproducts** S. Bassil, L. Candy, Laboratoire de Chimie Agro-Industrielle, Toulouse/F; A. Thuret, A. Masseron, Institut de Science des Matériaux de Mulhouse/F; V. Simon, C. Raynaud, Laboratoire de Chimie Agro-Industrielle, Toulouse/F	**Hybridisation of Taylor-Couette reactors and RDC columns** E. Aksamija, M. Siebenhofer, TU Graz/A
16:05	**Salt influence on the partitioning of HMF in aqueous/organic systems** S. Mohammad, C. Held, E. Altuntepe, G. Sadowski, TU Dortmund/D	**Modeling and study of the dispersed phase behaviour in a pulsed column** A. Amokrane, S. Charton, CEA, Bagnols-sur-ceze/F; J.P. Klein, F. Puel, Université Lyon 1, Villeurbanne/F
16:30	COFFEE BREAK AND SNACKS	
	Nuclear fuel reprocessing	
	S. Schlosser, Slovak University of Technology, Bratislava/SL	*M. Hlawitschka, TU Kaiserslautern/D*
17:00	**New dipicolinic acid derivatives for actinide-lanthanide separations** K. Nash, C. Heathman, Washington State University, Pullman, WA/USA	**A modified rotating disc contactor to eliminate flow dead zones** Z. Sun, H. Chen, G. Lu, P. Li, J. Yu, East China University of Science and Technology, Shanghai/CHN
17:25	**Effect of the central frames and substituents attached to N atoms on extraction ability of podand-type extractants** Y. Sasaki, Y. Kitatsuji, Y. Sugo, Y. Tsubata, T. Kimura, Y. Morita, Japan Atomic Energy Agency, Tokai/J	**Comprehensive numerical and experimental analysis of copper solvent extraction within Y-Y microreactors** O. Kazemi, P. Ribeiro Martins Bento, S. Miskovic, University of Utah, Salt Lake City, UT/USA
17:55	**New developments with monoamide type extractants** C. Sorel, M. Miguirditchian, CEA, Bagnols-sur-ceze/F	**Simulation of organic drop coalescence in a hypothetical settler: effect of geometry and fluid parameters** O. Kazemi, S. Parvizi, E. Keshavarz Alamdari, Amirkabir University of Technology, Tehran/IR
19:00 23:00	**Conference Dinner**	

Thursday, 11 September 2014

Franconia lecture hall

Chair: S. Bélair, Emrat Research, Trappes/F

08:30	**The role of solvent extraction in platinum group metal refining – past, present and future** R. Grant, Johnson Matthey Technology Centre, Reading/UK; S.F. Woollam, Anglo American's Technical Solutions, Johannesburg/ZA
09:15	COFFEE BREAK AND SNACKS

	Room Auvera/Bossi/Wagner	Room Neumann
	Hydrometallurgy and metals extractions	**Nuclear fuel reprocessing**
	Chair: W. Gutknecht, H.C. Stark GmbH, Goslar/D	*Chair: H. Reinhardt, MEAB Metallextraktion AB, Askim Göteborg/S*
09:45	**Separation of Fe(III) from a synthetic nickel laterite leach solution with high chloride concentration using DEDOA** Z. Zhu, Y. Pranolo, C.Y. Cheng, CSIRO, Perth/AUS	**Americium and curium separations** B. Moyer, Oak Ridge National Laboratory, TN/USA
10:10	**Extraction of cobalt from a liquor rich in nickel by liquid surfactant membrane and liquid-liquid extraction techniques** E.M.R. Araújo, C. Konzen, J.C. Balarini, T.L.S. Miranda, A. Salum, Universidade Federal de Minas Gerais, Belo Horizonte/BR	**A new appraisal of wastes from an aqueous solvent extraction based reprocessing facility** C. Phillips, W. Willis, R. Carter, EnergySolutions plc, Richland, WA/USA; S. Baker, UK National Nuclear Laboratory, Warrington/UK
10:35	**Separation and purification of zirconium with amines from sulphuric acid system: a review** V.I. Lakshmanan, R. Sridhar, Z. Jankovic, M.A. Halim, Process Research ORTECH Inc., Mississauga/CDN	**On-line monitoring of used nuclear fuel separation processes by spectroscopic analysis** K. Nee, University of California/USA; S. Bryan, T. Levitskaia, Pacific Northwest National Laboratory, Richland, WA/USA; M. Nilsson, University of California/USA
11:00	**Development of novel extractants with amino acid structure for highly effective recovery and separation of nickel and cobalt ions** Y. Baba, F. Kubota, N. Kamiya, M. Goto, Kyushu University, Fukuoka/J	**The redox chemistry of neptunium in gamma-irradiated aqueous nitric acid** B.J. Mincher, Idaho National Laboratory, Idaho Falls, ID/USA; M. Precek, Oregon State University, Corvallis, OR/USA; G. Elias, Idaho National Laboratory, Idaho Falls, ID/USA; S.P. Mezyk, California State University, Long Beach, CA/USA; L.R. Martin, Idaho National Laboratory, Idaho Falls, ID/USA; A. Paulenova, Oregon State University, Corvallis, OR/USA
11:25	**Recovery of Ni and Cd from spent Ni-Cd batteries by acid leaching and a synergistic solvent extraction system using D2EHPA and Cyanex 302** A. Babakhani, N. Heidari, F. Rashchi, S.M.M. Noori, University of Tehran/IR	**Microemulsions and aggregation formation in extraction processes for used nuclear fuel** M. Nilsson, A. Braatz, A. Jackson, University of California/USA; P. Zalupski, Idaho National Laboratory, Idaho Falls, ID/USA; R. Ellis, M. Antonio, Argonne National Laboratory, Chicago, IL/USA
11:50	LUNCH BREAK	

Thursday, 11 September 2014

Franconia lecture hall

Chair: S. Bélair, Emrat Research, Trappes/F

08:30	**The role of solvent extraction in platinum group metal refining – past, present and future** R. Grant, Johnson Matthey Technology Centre, Reading/UK; S.F. Woollam, Anglo American's Technical Solutions, Johannesburg/ZA
09:15	COFFEE BREAK AND SNACKS

	Room Tiepolo	Franconia lecture hall
	Process chemistry and engineering	**Novel reagents, materials and techniques**
	Chair: J. Leistner, Evonik Industries AG, Darmstadt/D	*Chair: S. Bélair, Emrat Research, Trappes/F*
09:45	**Application related design of liquid-liquid decanters of challenging technical systems** M. Haneke, Evonik Industries AG, Marl/D; J. Leistner, Evonik Industries AG, Darmstadt/D; M. Mendorf, Evonik Industries AG, Marl/D	**Gold, palladium, and platinum adsorption from leached electronic scrap using ordered mesoporous carbon nanoscaffolds** P. Zalupski, R. McDowell, Idaho National Laboratory, Idaho Falls, ID/USA
10:10	**An approach to predict the dispersing efficiency in static mixers, centrifugal pumps and turbulent pipe flow will be presented** M. Weber, Ineos Phenol GmbH, Gladbeck/D	**Molecular and supramolecular speciation in organic extractant solutions: influence of the metal concentration on extraction efficiency** L. Berthon, P. Guilbaud, Y. Meridiano, J. Muller, CEA Marcoule, Bagnols-sur-ceze/F; R. Ellis, M. Antonio, Argonne National Laboratory, IL/USA
10:35	**Comparison of the model prediction and industrail data in pulsed disc doughnut extraction column** Y. Wang, K.A. Mumford, The University of Melbourne/AUS; S. Ballestrin, Uranium One Inc./AUS; K. Smith, T.F. Grabin, G.W. Stevens, The University of Melbourne/AUS	**Process for the selective membrane-based solvent extraction recovery and enrichment of Pt, Pd and Rh from spent catalyst leaching solutions** D.J. van der Westhuizen, North-West University, Potchefstroom/ZA; E. Bringas, I. Ortiz, Universidad de Cantabria, Santander/E; H.M. Krieg, North-West University, Potchefstroom/ZA
11:00	**OSN (Organic Solvent Nanofiltration) – a new technology for hybrid processes with solvent extraction** A. Boam, Evonik Membrane Extraction Technology Ltd., Wembley/UK; A. Kobus, Evonik Industries AG, Marl/D; C. Schnitzer, I. Rocha, V. Koleva, Y. Bouwhuis, Evonik Membrane Extraction Technology Ltd., Wembley/UK	**Recovery of platinum(IV) and palladium(II) from complex hydrochloric acid matrices by a thiodiglycolamide derivative** A. Paiva, G. Carvalho, University of Lisbon/P; M. Costa, A. Costa, University of Algarve, Faro/P; C. Nogueira, Laboratório Nacional de Energia e Geologia, Lisbon/P
11:25	**Stacked multi channel reactor for solvent extraction process** A. Matsuoka, K. Noishiki, Kobe Steel, LTD./J	**Probing the outer coordination sphere to define the mode of action of unusually strong and selective metal extractants** P. Tasker, University of Edinburgh/UK; E. Carter, I. Fallis, Cardiff University/UK; R. Forgan, R. Gordon, J. Love, C. Morisson, University of Edinburgh/UK; D. Murphy, Cardiff University/UK
11:50	LUNCH BREAK	

Thursday, 11 September 2014

Franconia lecture hall

Chair: B. Moyer, Oak Ridge National Laboratory/USA

13:20	**Troubleshooting at Honeymoon – from trouble to success** H. Aharon, B. Grinbaum, Bateman, Yokneam/IL
13:50	**Award Session**
14:20	COFFEE BREAK

	Room Tiepolo	Room Neumann
	Hydrometallurgy and metals extractions	**Nuclear fuel reprocessing**
	Chair: G. Stevens, The University of Melbourne/AUS	*Chair: B. Moyer, Oak Ridge National Laboratory/USA*
14:50	**Homogeneous liquid-liquid extraction of metals with ionic liquids** B. Onghena, K. Binnemans, KU Leuven, Heverlee/B	**Development of the actinide-lanthanide separation (ALSEP) process** G.J. Lumetta, J.C. Carter, C.M. Niver, Pacific Northwest National Laboratory, Richland, WA/USA; A.V. Gelis, Argonne National Laboratory, IL/USA
15:15	**Extraction of Zn(II), Cd(II), Hg(II) and Co(II) by a high quaternary ammonium salts** A. Trofimenko, A. Gulevich, Belarusian State University, Minsk/BY	**High LET radiolytic degradation of solvent extraction processes for used nuclear fuel** J. Pearson, M. Nilsson, University of California/USA
15:40	**About the origin of "synergism" in ion selectivity in metal salt extraction by microemulsions** S. Dourdain, S. Pellet-Rostaing, D. Meyer, University of Montpellier 2, Bagnols-sur-ceze/F	**The radiation chemistry of CMPO** S. Mezyk, California State University, Long Beach, CA/USA; B.J. Mincher, Idaho National Laboratory, Idaho Falls, ID/USA; M. Nilsson, J. Pearson, California State University, Irvine, CA/USA; J. LaVerne, University of Notre Dame, IN/USA
16:05	**Operational and design features related to copper solvent extraction wash stages** H. Hein, R. Hein, Oryxeio Ingeniéria Limitada, Providencia/RCH	**Adsorption characteristics of fission product elements constituting high level liquid wastes for macro-cyclic resins** M. Ozawa, T. Kaneshiki, Tokyo Institute of Technology/J; T. Sychra, Slovak University of Technology, Bratislava/SK; M. Nomura, Tokyo Institute of Technology/J; Y. Ohishi, T. Sakurai, Atox, Tokyo/J
16:35	**Closing Ceremony**	
16:45	**End of Conference**	

Thursday, 11 September 2014

Franconia lecture hall

Chair: B. Moyer, Oak Ridge National Laboratory/USA

13:20	**Troubleshooting at Honeymoon – from trouble to success** H. Aharon, B. Grinbaum, Bateman, Yokneam/IL
13:50	**Award Session**
14:20	COFFEE BREAK

	Franconia lecture hall	Room Auvera/Bossi/Wagner
	Process chemistry and engineering	**Biotechnology, pharmaceutical, life science and organic products**
	K. L. Nash, Washington State University, Pullman/USA	*Chair: B. Schuur, University of Twente, Enschede/NL*
14:50	**Mooresboro zinc project: first solvent extraction plant in the world to produce zinc entirely from recycling** G. Diaz, E. Pecharroman, S. Sanguilinda, Tecnicas Reunidas, Madrid/E; J. Pusateri, Horsehead Corporation, Pittsburgh, PA/USA	**An innovative mixing technology to improve phase separation in recovery and purification of carboxilic acids by solvent extraction** S. Roman, Turbulent Technologies Ltd., Jerusalem/IL; N. Dobrin, O. Lerner, Tenova Bateman Technologies, Yokneam/IL
15:15	**State of the art of solvent extraction and electrowinning design** L. John, DRA Mineral Projects (Pty) Ltd., Johannesburg/ZA; G.M. Miller, Miller Metallurgical Services Pty Ltd., Corinda/AUS	**API recovery from pharmaceutical waste streams by continuous countercurrent extraction** S. Ignatova, P. Hewitson, I.A. Sutherland, Brunel University, Uxbridge/UK; P. Wood, Dynamic Extractions Ltd., Uxbridge/UK; N. Douillet, C. Thickett, D. Johns, K. Freebairn, GlaxoSmithKline, Stevenage/UK
15:40	**Recovery of phenol from catalytic pyrolysis bio-oil – an industrial perspective** K. Babic, B. Engendahl, T. van Houtem, R. Parton, DSM, Geleen/NL	**Recovery of valuable products from biomass using a KARR column** T. Lightfoot, Koch Modular Process Systems, LLC, Houston, TX/USA; D. Glatz, Koch Modular Process Systems, LLC, Paramus, NJ/USA
16:05	**Copper solvent extraction plant commissioning** M.F. Vancas, Tenova Bateman Technologies MESA, Tucson, AZ/USA	**A new approach to coil-planet centrifuges for extraction and phase separation in downstream processing** P. Scherübel, A. Pfennig, Graz University of Technology/A
16:35	**Closing Ceremony**	
16:45	**End of Conference**	

ANALYTICAL AND PREPARATIVE APPLICATIONS

P 1.1 **Determination of PCDD/Fs and dioxin-like PCBs in the ambient air of the cement industry using the CALUX bioassay and the sensitive H1L7.5c**
S. Khedidji, University Akli Mohand Oulhaj Bouira/DZ; K. Croes, Vrije Universiteit Brussel/B; N. Yassaa, Centre Développement Energies Renouvelable, Alger/DZ; R. Ladji, Centre Recherche Scientifique Technique Analyses Physico Chimiques, Alger/DZ; M. Elskens, W. Baeyens, Vrije Universiteit Brussel/B

P 1.2 **Transport of Pd(II) and Au(III) through redox-active bulk liquid membranes and the simultaneous formation of gold micro- and nanoparticles**
M. Sánchez-Loredo, Universidad Autónoma de San Luis Potosí/MEX; M. Grote, Universität Paderborn/D

P 1.3 **The extraction of Co(II) with Cyanex 272 in a neutral micellar system**
F. Xiao, Y. Wang, The University of Melbourne/AUS; X. Shen, Henan University, Luo Yang/CHN; G.W. Stevens, J.M. Perera, The University of Melbourne/AUS

P 1.4 **Optimizing crude oil separations – a study of turbulence and composition influence on the drop size distribution of crude oil in sea water**
S. Maaß, SOPAT GmbH, Berlin/D

BIOTECHNOLOGY, PHARMACEUTICAL, LIFE SCIENCE AND ORGANIC PRODUCTS

P 2.1 **Extraction of succnic acid by aqueous two phase system (ATPS) using ionic liquids and salts**
A.I. Pratiwi, M. Matsumoto, K. Kondo, Doshisha University, Kyotanabe/J

P 2.3 **Reactive extraction of aminoacids – selective separation**
A.C. Blaga, D. Cascaval, L. Kloetzer, A. Carlescu, "Gheorghe Asachi" Technical University of Iasi/RO; A.I. Galaction, "Gr.T. Popa" University of Medicine and Pharmacy of Iasi/RO

P 2.4 **Separation of zirconium and hafnium by solvent extraction from nitric liquor – part 1**
D. Carlos, C.B.S. Janúbia, Centro de Desenvovimento da Tecnologia Nuclear, Belo Horizonte/BR

P 2.5 **Multistage extraction as a method of dicarboxylic acids removal from glycerol bioconversion fermentation broths**
M. Regel-Rosocka, A. Krzyzkowska, D. Bednarska, M. Wisniewski, Poznan University of Technology/PL

CFD APPLICATIONS

P 3.1 **Drop formation at a nozzle hole in a plate for quiescent continuous phase**
N. Sen, K.K. Singh, S. Mukhopadhyay, K.T. Shenoy, S.K. Ghosh, Bhabha Atomic Research Center, Mumbai/IND

P 3.4 **Modelling approach to estimate droplet interaction parameters**
H. Jildeh, University of Kaiserslautern/D; M. Attarakih, University of Jordan, Amman/JOR; H.-J. Bart, University of Kaiserslautern/D

EXTRACTION OF NATURAL PRODUCTS FROM PLANTS

P 4.2 **Green extraction of aromas from herbs and spices using alternative solvents: theoretical and experimental solubility study**
A. Filly, Avignon University/F

P 4.3 **Bioguided fractionation and isolation of natural anti-ulcerogenic compounds and *anti-Helicobacter* pylori from *Convolvulus austroaegyptiacus***
A. Al-Rifai, A. Awaad, A. Aqel, King Saud University, Riyadh/SAR

P 4.4 **Salt influence on the partitioning of HMF in aqueous/organic systems**
S. Mohammad, C. Held, E. Altuntepe, G. Sadowski, TU Dortmund/D

P 4.5 **Three-liquid-phase extraction and gas-assisted three-liquid-phase extraction of anthraquinones from rhubarb**
X. Yang, X. Liang, L. Yang, Q. Liu, H. Liu, Chinese Academy of Sciences, Beijing/CHN

EXTRACTION ON MINI-SCALE

P 5.1 **Pertraction of neodymium by a dedicated solvent**
M. Toure, CEA Marcoule and University of Montpellier 2, Bagnols-sur-ceze/F; G. Borda, J. Duhamet, CEA Marcoule, Bagnols-sur-ceze/F; S. Pellet-Rostaing, CNRS, Bagnols-sur-ceze/F

P 5.2 **A new approach to achieve countercurrent multi-stage micro-extraction**
S. Li, S. Jing, Tsinghua University, Beijing/CHN

P 5.5 **Application of microreactor system in solvent extraction of metal ion with calixarene derivatives**
M. Maeki, Kyushu University, Kasuga/J; J.Y. Kim, Saga University/J; M. Miyazaki, AIST, Tosu/J; K. Ohoto, Saga University/J

P 5.6 **Concepts for efficient extraction in micro and milli structures – feasibiltiy of countercurrent extraction with segmented flow**
F. Kaske, D.W. Agar, TU Dortmund/D

P 5.7 **Simulation based design of extraction columns for aqueous two-phase systems**
M. Schmidt, M. Wessling, RWTH Aachen/D; A. Pfennig, TU Graz/A

P 5.8 **Reactive mass transfer in a microstructured counter-current apparatus**
S. Willersinn, H.-J. Bart, University of Kaiserslautern/D

FUNDAMENTALS

P 6.2 **How H-bonding networks in reverse micelles drive the extractive transport of Eu(III) nitrate**
R. Ellis, Argonne National Laboratory, Lemont, IL/USA

P 6.3 **Experimental and model study on extraction of phenol by toluene**
Z. Li, K. Mumford, K. Smith, G. Stevens, The University of Melbourne/AUS

P 6.4 **Mass transfer and hydrodynamic investigation of a hybrid pulsed extraction column**
Y. Wang, Tsinghua University, Beijing/CHN

P 6.5 **A new electrochemical approach for solvent extraction processes**
N. Sadegi, E. Keshavarz Alamdari, Amirkabir University of Technology, Tehran/IR

P 6.6 **Numerical modelling of centrifugal settlers based on experimental data**
R. Macher, A. Pfennig, Graz University of Technology/A

P 6.7 **Influence of the nature of an extragent on the rate of extraction a REE at vibration on a dynamical interfacial layer**
N. Kizim, E.N. Golubina, Mendeleev University of Chemical Technology, Novomoskovsk/RUS

P 6.8 **Solvation free energies of lead nitrate in mixed DMF-water solvents**
G. Esam, Mansoura University/ET

P 6.9 **Gibbs solvation free energies for lead nitrate in mixed dimethylformamide-water solvents**
E. Gomaa, Mansoura University/ET

P 6.10 **Heteropolynuclear 3d/4f metal complexes in solvent extraction**
N. Kelly, K. Schnaars, A. Heine, T. Doert, F. Taube, M. Acker, K. Gloe, K. Gloe, J.J. Weigand, TU Dresden/D

P 6.12 **Solvent extraction and separation of samarium(III) using hexaacetato calix[6]arene**
Y.S. Thakare, Amravati University/IND; S.T. Gawhale, D.D. Malkhede, University of Pune/IND

P 6.14 **Numerical analysis and experimental validation of droplet collision**
F. Gebauer, M.W. Hlawitschka, University of Kaiserslautern/D; J. Villwock, J. Kamp, TU Berlin/D; H.-J. Bart, University of Kaiserslautern/D; M. Kraume, TU Berlin/D

P 6.15 **Activity coefficients of di-(2-ethyl hexyl) phosphoric acid by vapor pressure osmometry and slope analysis**
M. Gray, University of California/USA; P. Zalupski, Idaho National Laboratory, Idaho Falls, ID/USA; G. Modolo, Forschungszentrum Jülich GmbH/D; M. Nilsson, University of California/USA

P 6.16 **Study of the aggregation of Cyanex 272 and Ionquest 290 by vapor pressure osmometry**
M. Dehestru, Eramet Research, Trappes/F and Ecole Centrale Paris/F; M. Stambouli, Ecole Centrale Paris/F; M. Gohin, Eramet Research, Trappes/F; D. Pareau, Ecole Centrale Paris/F; Y. Le Quesne, Eramet Research, Trappes/F

P 6.17 **Multi-scale modelling of droplet interactions in liquid–liquid systems**
L. R. Mason; G. W. Stevens; D.J. E. Harvie, The University of Melbourne/AU

FUNDAMENTALS/NOVEL REAGENTS, MATERIALS AND TECHNIQUES

P 7.2 **Tuning strength of phenolic pyrazole extractants using outer-sphere H-bond buttressing**
M. Healy, University of Edinburgh/UK; V. Cocalia, Cytec Industries Inc., Stamford, CT/USA; E. Doidge, University of Edinburgh/UK; A. Fischmann, Cytec Industries Inc., Stamford, CT/USA; J. Love, C. Morrison, J. Roebuck, University of Edinburgh/UK; T. Sassi, Cytec Industries Inc., Stamford, CT/USA; P. Tasker, University of Edinburgh/UK

P 7.3 **Influence of the nature of an extragent on the rate of extraction a REE at vibration on a dynamical interfacial layer**
N. Kizim, E.N. Golubina, Mendeleev University of Chemical Technology, Novomoskovsk/RUS

P 7.6 **Nitrate based ionic liquid as a new solvent for extraction of aromatic from alkane**
B. Mokhtarani, CCERCI, Tehran/IR; J. Musavi, Semnan University/IR; A. Sharifi, CCERCI, Tehran/IR; M. Parvini, Semnan University/IR

P 7.7 **Solvent extraction of precious metal ions with phenylurea type of trident molecule**
Y. Ueda, S. Morisada, H. Kawakita, K. Ohto, Saga University/J

P 7.8 **Non-steroidal analgesics and beta-lactam antibiotics extraction with binary extracting agents**
A.L. Gulevich, V.I. Kuksa, Belarusian State University, Minsk/BY

P 7.9 **Sorption behaviour of Cd(II) sorption from aqueous solutions using polymeric microcapsules containing an acidic organophosphonic extractant**
V. Ide, A. Valdés, C. Basualto, J. Sapag, C. Araneda, F. Valenzuela, Universidad de Chile, Santiago/RCH

P 7.10 **Formation and extraction ability of reverse micelle by intermolecular interaction between di(2-ethylhexyl)phosphoricacid and ethanolamines**
K. Shiomori, K. Ejima, University of Miyazaki/J; S. Kiyoyama, Miyakonojyo NCT/J; T. Sana, Sansei Giken Co. Ltd., Yoshikawa/J

P 7.11 **Solvent extraction of palladium from hydrochloric acid media by N,N-disubstituted thioamides**
A. Paiva, Lisbon University/P; O. Ortet, Lisbon University/P and Cape Verde University, Praia/CV

P 7.13 **Synthesis of alkylpiperazine and its application to a polymer inclusion membrane for selective separation of Cd(II) over Zn(II) and Ni(II)**
Y. Baba, C. Aso, T. Oshima, University of Miyazaki/J

P 7.14 **Synergistic effect of 8-quinolinol derivatives on the supercritical carbon dioxide extraction of gallium(III) with D2EHPA**
A. Ohashi, N. Kawashima, Haeng-Boo Kim, College of Science, Ibaraki University, Mito/J

HYDROMETALLURGY AND METALS EXTRACTIONS

P 8.1 **Effect of aggregation on synergistic mechanism for liquid/liquid extraction**
J. Rey, S. Dourdain, S. Pellet-Rostaing, T. Zemb, CEA Marcoule, Bagnols-sur-Cèze/F

P 8.2 **Separation of nickel from calcium and magnesium by using mixtures of Cyanex 272 and D2EPHA**
M.B. Mansur, A.S. Guimaraes, P.S. Silva, Universidade Federal de Minas Gerais, Belo Horizonte/BR

P 8.3 **A study on solvent extraction reaction of uranium (VI) sulfate with Alamine 336**
É. Avelar, G. P. de Souza Resende, M. B. Mansur,Universidade Federal de Minas Gerais, Belo Horizonte/BR

P 8.4 **Separation of Fe(III) from chloride solution by solvent extraction method and tri-n-butyl phosphate (TBP)**
N. Sadeghi, E. Keshavarz Alamdari, Amirkabir University of Technology, Tehran/IR

P 8.5 **Evidence of a predictable difference between nitrate and sulphate anions in the solvent extraction of base metals by acidic extractants**
M. Hutton-Ashkenny, Curtin University and Direct Nickel Pty. Ltd., Kalgoorlie/AUS; K. Barnard, CSIRO, Perth/AUS; D. Ibana, Curtin University, Kalgoorlie/AUS

P 8.6 **Partial inhibition of cobalt(III)-LIX®860 formation by organic acids**
M. Hutton-Ashkenny, Curtin University and Direct Nickel Pty. Ltd., Kalgoorlie/AUS; K. Barnard, CSIRO, Perth/AUS; D. Ibana, Curtin University, Kalgoorlie/AUS

P 8.9 **Separation of metals from HEV Li-ion batteries, Part1- from nitrate leach liquor**
S. Kosaraju, C. Ekberg, S. Allard, Chalmers University of Technology, Gothenburg/S

P 8.10 **Separation of metals from HEV Li-ion batteries, Part2- from sulphate leach liquor**
S. Kosaraju, C. Ekberg, S. Allard, Chalmers University of Technology, Gothenburg/S

P 8.11 **Separation of metals from HEV Li-ion batteries, Part3- from chloride leach liquor**
S. Kosaraju, C. Ekberg, S. Allard, Chalmers University of Technology, Gothenburg/S

P 8.12 **Separation of copper(II), zinc(II) and nickel(II) from chloride solutions with pyridinecarboxamides**
P. Budziszewska, I. Madrzak-Litwa, K. Wieszczycka, A. Borowiak-Resterna, Poznan University of Technology/PL

P 8.13 **Rare earth elements recovery from used NdFeB magnets by leaching and solvent extraction**
V. Haquin, M. Miguirditchian, CEA Marcoule, Bagnols-sur-Ceze/F; R. Laucournet, E. Billy, CEA, Grenoble/F

P 8.14 **Alkyl derivatives of 2,2'-bibenizimidazole as extractants of d-electron metal ions**
I. Madrzak-Litwa, K. Wieszczycka, A. Borowiak-Resterna, Poznan University of Technology/PL

P 8.15 **Zinc extraction from sulfate-chloride solutions with mixtures of a trialkyl amine and carboxylic acids**
I.Yu. Fleitlikh, G.L. Pashkov, N.A. Grigorieva, Institute of Chemistry and Chemical Technology, Krasnoyarsk/RUS; O.A. Logutenko, Institute of Solid State Chemistry and Mechanochemistry, Novosibirsk/RUS; A.M. Kopanyov, Khimpolitekh Ltd., Novosibirsk/RUS

P 8.16 **Solvent extraction studies for the separation of rare earth elements using neutral and acidic organophosphorus extractants**
S. Omanovic, G. Modolo, F. Sadowski, D. Bosbach, Forschungszentrum Jülich GmbH/D

P 8.17 **Direct extraction of molybdenum from high acid leach solution of Ni-Mo ore using an oxime extractant of HBL@101**
L. Zeng, X.L. Liao, L.S. Xiao, Y.H. Sun, Central South University, Changsha/CHN

P 8.18 **Solvent extraction of zinc and nickel by various methods from zinc plant filter cake**
D. Moradkhani, University of Zanjan, Zanjan/IR; H. Kamran Haghighi, Amirkabir University of Technology, Tehran/IR; B. Sedaghat, Research and Engineering Company for Nonferrous Metals, Zanjan/IR

P 8.19 **High selectivity for cobalt / magnesium separation by solvent extraction in a pilot plant**
M. Moraes Castanho de Almeida, A. Cotrim, Produquímica Indústria e Comércio S.A., Suzano/BR

P 8.21 **Versatic 10 acid/NICKSYN™ synergistic system versus Cyanex 272 for the recovery of cobalt from typical DRC/Zambian copper-Co**
S. Archer, V. Coetzee, J. Scheepers, DRA Mineral Projects (Pty) Ltd., Johannesburg/ZA; R. du Preez, M. Kotze, Mintek, Johannesburg/ZA

P 8.22 **Stripping of calcium-loaded D2EHPA with strong and weak sulphuric acid strip liquors**
S. Archer, V. Coetzee, DRA Mineral Projects (Pty) Ltd., Johannesburg/ZA; M. Kotze, Mintek, Johannesburg/ZA; M. Cradock, MC Process, Johannesburg/ZA

P 8.23 **Experimental design for solvent extraction of rare earth light and medium elements in hydrochloric acid media using D2EHPA in isoparaffin**
C. Sousa Junior, IFRJ, Rio de Janeiro/BR; M. Nascimento, C.B. Da Costa, Cetem, Rio de Janeiro/BR

P 8.24 **Recovery of zinc from HCl industrial effluents**
M.L. F. Gameiro, Remígio M. Machado, J.M.A. Rodrigues, K. Staszak, M. Regel-Rosocka, K. Wieszczycka, M. Rosinda C. Ismael, M. Teresa A. Reis, J.M.R. Carvalho, Instituto Superior Técnico, Lisbon/P

P 8.25 **Mechanism and thermodynamics of synergistic separation of vanadium and nickel from sulfate media using D2EHPA and Cyanex 272**
S.M.M. Noori, F. Rashchi, University of Tehran/IR; E. Vahidi, University of South Florida, Tampa, FL/USA; A. Babakhani, University of Tehran/IR

P 8.27 **Application of the liquid surfactant membranes technique for the removal of Cr^{6+} from a galvanising industry**
T.L.S. Miranda, V.O. Silva, A. Salum, C. Konzen, E.M.R. Araújo, F.E.B. Coelho, J.C. Balarini, Universidade Federal de Minas Gerais, Belo Horizonte/BR

P 8.28 **Study of the solvent extraction of the lighter lanthanide metal ions by means of organophosphorus extractants**
L. Molina, C. Basualto, F. Valenzuela, J. Sapag, University of Chile, Santiago/RCH

P 8.29 **Vanadium recovery by extraction in spent catalyst used in the manufacture of sulphuric acid**
M. Musadi, National Institute of Technology, Bandung/RI

P 8.30 **Extraction of chromium (VI) by liquid-liquid extraction using Cyphos IL 101**
Z. Gamiño-Arroyo, E.A. Franco-García, L.E. Sánchez-Cadena, I. Cano-Rodríguez, F.I. Gómez-Castro, J. Ramírez Flores, A.R. Uribe-Ramírez, Universidad de Guanajuato/MEX

P 8.31 **Extraction of rhodium(III) and ruthenium(III) ions from chloride solutions with phosphonium ionic liquids as extractants**
M. Regel-Rosocka, M. Rzelewska, M. Wisniewski, Poznan University of Technology/PL

P 8.32 **Preparation of the novel ionic liquids functionalized resins with tunable structure for metal ions separation**
H. Cui, J. Chen, Y. Liu, Chinese Academy of Sciences, Changchun/CHN

P 8.34 **Innovation of solvent extraction for metal separation in mixed chloride media: case studies for different value metals**
V.I. Lakshmanan, R. Sridhar, M.A. Halim, Process Research ORTECH Inc., Mississauga/CDN

P 8.35 **Precious metals extraction with sulfur function supported on methylacrylate-styrene copolymer**
M. Iwakuma, S. Nakajima, M. Ishikawa, Miyakonojo National College of Technology/J; Y. Baba, University of Miyazaki/J

P 8.36 **A hydrometallurgy process for extracting cerium(IV) and thorium (IV) from bastnasite using primary amine N1923 and Cyanex923**
D. Li, J. Lu, S. Liu, H. Li, Y. Bai, X. Sun, Y. Wang, Changchun Institute of Applied Chemistry/CHN

P 8.37 **Global experiences with a dearomatized diluent (Escaid™ 110) in SX processes**
D. Bien, ExxonMobil Chemical Asia Pacific, Singapore/SGP; P.Y. Guyomar, ExxonMobil Chemical Europe, Brussels/B; J. Hu, ExxonMobil Asia Pacific Research & Development Co., Ltd., Shanghai/CHN

P 8.38 **Extraction and separation of uranium and thorium by di-(2-ethylhexyl) 2-ethylhexyl phosphonate**
Y. Wang, C. Zhao, W. Liao, D. Li, Changchun Institute of Applied Chemistry/CHN

P 8.39 **Partition of copper and iron ions in aqueous two phase system**
A. Jimenez, Universidad Tecnica de Oruro/BOL; Y.P. Jimenez, H.R. Galleguillos, Universidad de Antofagasta/RCH

P 8.40 **Solvent extraction recovery of zinc and molybdenum from steelmaking dusts**
S. Virolainen, T. Sainio, Lappeenranta University of Technology/FIN

P 8.41 **Separation of rare earth metal ions by synergistic system with 2-thenoyltrifluoroacetone and TOPO**
F. Kubota, Z. Zhao, Y. Baba, N. Kamiya, M. Goto, Kyushu University, Fukuoka/J

P 8.42 **Synthesis of novel ditopic ligands for the extraction of transition metal salts**
R. Luckay, H.-M. Smuts, J.C. Hensberg, University of Stellenbosch/ZA

P 8.43 **Separation of indium and zinc by solvent extraction from sulfuric liquor generated from the leaching of the coating dust of the scrapped computer screens**
D. Carlos, A.C.V. Zuccheratte, Centro de Desenvovimento da Tecnologia Nuclear, Belo Horizonte/BR

P 8.44 **Laboratory plant problems on the example of nickel(II) solvent extraction from leaching solution**
G. Pietek, L. Gotfryd, Z. Szołomicki, K. Becker, J. Piwowońska, Instytut Metali Nieżelaznych, Gliwice/PL

INDUSTRIAL PRACTICE

P 9.1 **Montan wax extraction using a laboratory belt extractor: development, construction and commissioning**
M. Wollmerstädt, V. Herdegen, H.-W. Schröder, TU Bergakademie Freiberg/D; T. Naundorf, ROMONTA Unternehmensgruppe, Seefeld Mansfelder Land/D; J.-U. Repke, TU Bergakademie Freiberg/D

P 9.2 **Computer aided design of liquid-liquid extraction columns**
M. Hlawitschka, H. Jildeh, University of Kaiserslautern/D; M.W. Attarakih, University of Jordan/JOR; H.-J. Bart, University of Kaiserslautern/D

P 9.3 **Choose the right material of construction – wetting in extraction columns**
J. Koch, J.R. Herguijuela, Sulzer Chemtech AG, Allschwil/CH

NOVEL REAGENTS, MATERIALS AND TECHNIQUES

P 10.1 **Trivalent actinide and lanthanide separations using tetraalkyldiglycolamides (TCnDGA) in molecular and ionic liquid diluents**
B. Mincher, R. Fox, Idaho National Laboratory, Idaho Falls, ID/USA; M. Mincher, C. Wai, University of Idaho, Moscow, ID/USA

P 10.3 **Intramolecular cooperative effect of a macrocyclic receptor bearing ß-diketone fragments on the extraction of strontium into an ionic liquid**
H. Okamura, H. Naganawa, Japan Atomic Energy Agency, Tokai-mura/J; H. Imura, Kanazawa University/J; K. Shimojo, Japan Atomic Energy Agency, Tokai-mura/J

P 10.4 **Comprehensive extraction separation study of metal ions using N,N-dioctyldiglycolamic acid DODGAA**
K. Shimojo, H. Naganawa, Japan Atomic Energy Agency, Ibaraki/J

P 10.5 **Separation of rhodium from palladium, platinum and base metals with amide-containing tertiary amine compounds**
H. Narita, K. Morisaku, M. Tanaka, National Institute of Advanced Industrial Science and Technology, Tsukuba/J; K. Nagao, T. Fuchikami, T. Yoshida, K. Kuroda, Chemicrea Inc., Tokyo/J

P 10.6 **Modelling the outer-sphere bonding and solvation in chloridometalate extraction**
K.J. MacRuary, University of Edinburgh/UK; R.A. Grant, R.J. Gordon, Johnson Matthey, Reading/UK; J.B. Love, C.A. Morrison, P.A. Tasker, A.M. Wilson, University of Edinburgh/UK

P 10.7 **Synergistic extraction of divalent metal ions with p-tert-octylphenoxyacetic acid and N-donors**
T. Oshima, K. Kaneizumi, Y. Baba, University of Miyazaki/J

P 10.8 **In-situ droplets monitoring in a lab-scale pulsed column**
A. Amokrane, CEA, Bagnols-sur-ceze/F; S. Maass, SOPAT GmbH, Berlin/D; H. Roussel, F. Lamadie, S. Charton, CEA, Bagnols-sur-ceze/F

P 10.9 **Liquid-liquid extraction of scandium with O,O-bis(2-ethylhexyl) hydrogen thiophosphate**
K. Fujinaga, Kanazawa Institute of Technology, Nonoichi/J; Y. Nakajima, Daiichi Kigenso Kagaku Kogyo Co., LTD., Osaka/J; S. Oshima, Y. Watanabe, S. Tsurubou, Kanazawa Institute of Technology, Nonoichi/J; J. Noro, Nissan Arc. Ltd., Yokosuka/J; Y. Komatsu, Kanazawa Institute of Technology, Nonoichi/J

P 10.10 **Ammonium and phosphonium ionic liquids as extractants for metal ions from aqueous solutions**
I. García-Díaz, F.J. Alguacil, F.A. López, Centro Nacional de Investigaciones Metalúrgicas, Madrid/E; M. Regel-Rosocka, M. Wisniewski, Poznan University of Technology/PL

P 10.11 **Molybdenum(VI) extraction from sulphate media by quaternary pyridinium ketoxime salts**
K. Ochromowicz, K. Wejman, Wroclaw University of Technology/PL; A. Wojciechowska, K. Wieszczycka, Poznan University of Technology/PL

P 10.12 **Transport of zinc(II) from chloride solutions with phosphonium ILs as metal ion carriers by L-L extraction and polymer inclusion membranes**
M. Regel-Rosocka, R. Casas Jaraices, M. Baczynska, M. Wisniewski, Poznan University of Technology/PL

P 10.13 **Solvent impregnated resin: Cyanex272 immobilised Amberlite XAD-2 column for gadolinium(III) enrichment**
M. Karve, K. Pandey, University of Mumbai/IND

P 10.14 **3-Pyridylketoxime as Zn(II) extractant from chloride solutions in pseudo-emulsion based hollow fibre strip dispersion (PEHFSD)**
K. Wieszczycka, M. Regel-Rosocka, K. Staszak, Poznan University of Technology/PL; T.A. Reis, R.M.C. Ismael, M.L.F. Gameiro, J.M.R. Carvalho, Technical University of Lisbon/P

P 10.15 **Encapsulation of PC-88A in microcapsules of cross-linked gel of poly(vinyl alcohol)/ alginic acid and its extraction property of Co(II)**
K. Shiomori, S. Komatsu, N.I. Inda, University of Miyazaki/J; S. Kiyoyama, Miyakonojyo NCT/J; T. Takei, M. Yoshida, Kagoshima University/J

P 10.16 **Development of a highly selective solvent extraction system for the separation of Pd(II) from a solution of a leached automotive catalyst**
J. Traeger, H.-J. Holdt, University of Potsdam/D

P 10.17 **Thermo responsive gel including thiocrown ether unit for extraction of class b metal ions**
K. Chayama, T. Hirooka, S. Iwatsuki, Konan University, Kobe City/J

P 10.19 **Recovery of gallium and indium from synthetic leach solution of zinc refinary residues using novel synergistic solvent extraction**
S. Nusen, CSIRO, Perth/AUS; T. Chairuangsri, Chiang Mai University/T; Z. Zhu, C.Y. Cheng, CSIRO, Perth/AUS

P 10.20 **Selective enrichment of palladium in HNO_3 solution by micro-sized silica particles grafted with macrocyclic ligands**
G. Ye, Tsinghua University, Beijing/CHN; Y. Leng, China University of Petroleum, Beijing/CHN

NUCLEAR FUEL REPROCESSING

P 11.1 **Molecular simulations of solvent extraction of lanthanides and actinides with diglycolamide and pyridine amide**
K. Yoshizuka, The University of Kitakyushu/J; M. Hirata, T. Kimura, Japan Atomic Energy Agency, Tokai-mura/J

P 11.2 **Stability studies of considered grouped actinide extraction (GANEX) solvent systems**
H. Galán, A. Núñez, J. Cobos, Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT), Madrid/E

P 11.3 **Phenyl trifluoromethyl sulfone as diluent in a GANEX solvent**
J. Halleröd, E. Aneheim, C. Ekberg, M. Foreman, E. Löfström-Engdahl, Chalmers University of Technology, Gothenburg/S

P 11.4 **PAREX, a powerful tool for La Hague reprocessing plant operators**
J. Bisson, AREVA NC, Beaumont-Hague/F; B. Dinh, CEA, Bagnols-sur-ceze/F; C. Huel, AREVA NC, Beaumont-Hague/F

P 11.5 **Investigation of heat of formation of reverse micelles using isothermal titration calorimetry**
A. Jackson, University of California/USA; P. Zalupski, Idaho National Laboratory, Idaho Falls, ID/USA; M. Nilsson, University of California/USA

P 11.6 **Extraction chromatographic separation of Am(III) and Eu(III) by porous silica coating TPPEN-NIPA gel (1) - gel synthesis and temperature effect**
K. Takeshita, Y. Inaba, Tokyo Institute of Technology/J; T. Yaita, S. Suzuki, Japan Atomic Energy Agency, Tokai/J; A. Mori, Kobe University/J

P 11.7 **Development of a TODGA-based liquid-liquid extraction system for the separation of americium(III) from a simulated PUREX raffinate**
P. Kaufholz, A. Wilden, G. Modolo, F. Sadowski, S. Lange, D. Bosbach, Forschungszentrum Jülich GmbH/D; L.M. Harwood, A.W. Smith, University of Reading/UK

P 11.8 **New actinide recovery process using N,N-dialkylamide and phenanthroline amide**
S. Shinichi, K. Tohru, Y. Tsuyoshi, Japan Atomic Energy Agency, Tokai-mura/J

P 11.9 **Application of annular centrifugal contactors in a cold test of a new total partitioning process with simulated high level liquid waste**
W. Duan, J. Wang, J. Chen, Tsinghua University, Beijing/CHN

P 11.10 **Transient extraction behavior analysis of plutonium in reprocessing**
G. Uchiyama, H. Abe, Japan Atomic Energy Agency, Tokai-mura/J

P 11.11 **Application of annular centrifugal contactors in a cold test of a new total partitioning process with simulated high level liquid waste**
W. Duan, J. Wang, J. Chen, Tsinghua University, Beijing/CHN

P 11.13 **Process uranium recovery from mixed Sulfate/chloride media**
K. Soldenhoff, J. Quinn, ANSTO Minerals, Lucas Heights/AUS

P 11.14 **Probing ligand exchange kinetics in actinide/lanthanide solvent extraction systems using NMR spectrometry**
C. Marie, CEA Marcoule, Bagnols-sur-ceze/F; K. Nash, E. Krahn, Washington State University, Pullman, WA/USA

PROCESS CHEMISTRY AND ENGINEERING

P 12.1 **Intensification of liquid-liquid mass transfer with gas agitation for the preparation of caprolactam**
J.S. Zhang, K. Wang, X.Y. Lin, Y.C. Lu, G.S. Luo, Tsinghua University, Beijing/CHN

P 12.3 **Liquid membranes to improve resource efficiency in the surface treatment industry**
E. Bringas, A.M. Urtiaga, I. Ortiz, Universidad de Cantabria, Santander/E

P 12.4 **Ant colony optimization for sequencing of solvent extraction stages and optimization of their performance**
F. Vasilyev, S. Virolainen, T. Sainio, Lappeenranta University of Technology/FIN

P 12.5 **Preventing the introduction of air into emulsion in SX mixers**
R. Sheinman, Y. Kokotov, L. Braginsky, Turbulent Technologies Ltd., Jerusalem/IL

P 12.6 **Study on preparation of KH_2PO_4 in microreactors by a reaction-extraction coupling process**
F. Zhao, G.S. Luo, Y.C. Lu, K. Wang, Tsinghua University, Beijing/CHN

P 12.7 **Impact of particle size distribution in packed bed for solid-liquid extraction for Montan wax**
Y. Wang, V. Herdegen, J.U. Repke, TU Freiberg/D

P 12.8 **Extractive desulfurization of hexadecane using ionic liquid as a solvent**
B. Mokhtarani, H. Mansurzareh, H.R. Mortaheb, A. Sharifi, CCERCI, Tehran/IR

GENERAL INFORMATION

VENUE

Congress Centrum Würzburg
Turmgasse 11
97070 Würzburg

ISEC CONFERENCE OFFICE

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SOCIAL PROGRAMME

Sunday, 7 September 2014

18:00 – 20:00 **Welcome Reception**
at the Congress Centrum Würzburg

Monday, 8 September 2014

18:30 – 21:00 **Posterparty**
at the Congress Centrum Würzburg

Tuesday, 9 September 2014

13:50 – 16:30 **Excursion "City tour through Würzburg"**
Meeting point: Entrance Congress Centrum Würzburg

Wednesday, 10 September 2014

19:00 – 20:00 **Conference Dinner "Staatlicher Hofkeller Würzburg"**
Winery Würzburg, Staatlicher Hofkeller, Residenzplatz 3, 97070 Würzburg
Walking distance 1.3 km

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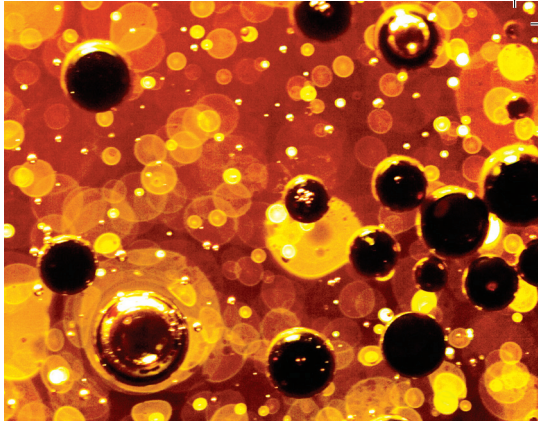

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