

## POSTER COMMUNICATIONS SCREEN 1

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### SESSION A | Wednesday, 22<sup>nd</sup> November, 14:00 - 15:00

- 14:00 P\_A1.1 Solvent-catalyst optimization of ionic liquid-based CO<sub>2</sub> conversion to propylene carbonate: Laboratory validation and techno-economic analysis**  
Rubén Santiago, Elisa Hernández, Alejandro Belinchón, Cristian Moya, Pablo Navarro, José Palomar
- 14:12 P\_A1.2 Efficient recyclability of amine-free CO<sub>2</sub> sorbent based on a solid-supported ionic liquid**  
M. Yousefe, A. Puga
- 14:24 P\_A1.3 Improving CO<sub>2</sub> solubility using [C<sub>4</sub>C<sub>1</sub>im][DMP] + carboxylate-based protic ionic liquids mixtures**  
Ricardo T. Pais, Liliana P. Silva, Ana C. Sousa, Pedro J. Carvalho
- 14:36 P\_A1.4 Use of polysulfone and n-methylpyrrolidone for preparation of polymeric membranes**  
Suzanna R. C. A. Sousa, Amanda M. D. Leite, Késia K. O. S. Silva
- 14:48 P\_A1.5 Liquid crystalline phases in fluorinated ionic liquids with surfactant-based anions**  
Gonçalo M. C. Silva, Tiago M. Eusébio, Pedro Morgado, Eduardo J. M. Filipe

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### SESSION B | Thursday, 23<sup>rd</sup> November, 14:00 - 15:00

- 14:00 P\_B1.1 Optimal cationic structure of acidic ionic liquids for synthesis of porphyrins**  
Satoshi Kitaoka, Maho Motohiro, Kaoru Nobuoka
- 14:12 P\_B1.2 Selective extraction of naringin and rutin from orange peels using aqueous solutions of biobased ionic liquids**  
Inês S. Cardoso, Aminou Mohamadou, Armando J. D. Silvestre, Mara G. Freire
- 14:24 P\_B1.3 Ionothermal syntheses of cluster-based tellurido mercurates**  
Mirko Tallu, Stefanie Dehnen
- 14:36 P\_B1.4 Solvent recovery in the process of deterpenation of citrus essential oils by liquid-liquid extraction with the ionic liquid 1-ethyl-3-methylimidazolium acetate**  
Oscar Rodríguez, Abdeldjalil Yahia-Bey, Héctor Rodríguez, Eva Rodil
- 14:48 P\_B1.5 Synthesis and physicochemical characterization of antimalarial surface-active ionic liquids**  
Ana Teresa Silva, Isabel Oliveira, Ricardo Ferraz, Eduardo F. Marques, Paula Gomes

# POSTER COMMUNICATIONS

## SCREEN 2

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### SESSION A | Wednesday, 22<sup>nd</sup> November, 14:00 - 15:00

- 14:00 P\_A2.1 Biosorbents modified with deep eutectic solvents for biogas purification**  
Patrycja Makoś-Chełstowska, Edyta Słupek, Patrycja Janicka, Dominika Sikorska, Jacek Gębicki
- 14:12 P\_A2.2 Optimization of collagen extraction, purification, and scale-up via DES**  
Abolfazl Keshmirshekan, Gabriela Kovaleski, Sónia P.M Ventura
- 14:24 P\_A2.3 A green separation of rare-earth elements from spent NdFeB permanent magnets using organic acid and eutectic solvent**  
Thaís S. Soares and Maria C. Hespanhol
- 14:36 P\_A2.4 Ultrathin films of [C<sub>1</sub>C<sub>1</sub>Im][Tf<sub>2</sub>N] on Au(111) and Pt(111) – adsorption and thermal behavior studied by ARXPS**  
Timo Talwar, Stephen Massicot, Afra Gezmis, Jade Barreto, Leonhard Winter, Cynthia C. Fernández, Manuel Meusel, Andreas Bayer, Florian Maier, and Hans-Peter Steinrück
- 14:48 P\_A2.5 Interfacial nanostructure and wetting behavior of ionic liquid mixture films on solid surfaces**  
Soraia R. M. R. Silva, Rita M. Carvalho, Margarida Bastos, Luís M. N. B. F. Santos, and José C. S. Costa
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### SESSION B | Thursday, 23<sup>rd</sup> November, 14:00 - 15:00

- 14:00 P\_B2.1 Influence of deposition rate on the nucleation and growth of ionic liquid films**  
Rita M. Carvalho, Soraia R. M. R. Silva, Cândida G. Neto, Luís M. N. B. F. Santos, Margarida Bastos, and José C. S. Costa
- 14:12 P\_B2.2 Ultrathin ionic liquid films tailor the selectivity of 1,3-butadiene versus 1-butene adsorption on Pt(111)**  
Cynthia C. Fernández, Leonhard Winter, Simon Trzeciak, Stephen Massicot, Timo Talwar, Afra Gezmis, Florian Maier, Dirk Zahn, Hans-Peter Steinrück
- 14:24 P\_B2.3 Enhancing solubility of hydrophobic compounds: exploring zwitterionic compounds as alternative hydrotropes**  
Ana M. Ferreira, Ana S. Pinto, Brayan Cruz, Dinis O. Abranches, Helena Passos, Kosuke Kuroda and João A.P. Coutinho
- 14:36 P\_B2.4 Exploring DASA stability in ionic liquids**  
Mara Nunes, Rafaela A. L. Silva, Catarina Cipriano, Carlos A. M. Afonso, Andreia Rosatella
- 14:48 P\_B2.5 New protic ionic liquids as lubricant additives for nano and microelectromechanical systems**  
Luís C. Branco, Mariana T. Donato, Jonas Deuermeier, Rogério Colaço and Benilde Saramago



# POSTER COMMUNICATIONS

## SCREEN 3

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### SESSION A | Wednesday, 22<sup>nd</sup> November, 14:00 - 15:00

- 14:00 **P\_A3.1 Anion effect on the thermophysical behavior of alkylsilane-based ionic liquids**  
Rodrigo M. A. Silva, Eduards Baķis, Ana I. M. C. Lobo Ferreira, Luís M. N. B. F. Santos
- 14:12 **P\_A3.2 Calorimetric and crystallographic phase-behavior study of selected 1 butylpyridinium ionic liquids**  
Štefan Kocian, Vojtěch Štejfa, Jan Rohlíček and Ctirad Červinka
- 14:24 **P\_A3.3 On thermal stability of amine and carboxylic acid-based protic ionic liquids**  
Liisa-Maria Kaljusmaa, Jasper Adamson, Oliver Järvik
- 14:36 **P\_A3.4 Thermodynamic study of a mixture of two tertiary alcohols - A pathway for the design of type V deep eutectic solvents**  
Inês C. M. Vaz, Ana I. M. C. Lobo Ferreira, Gonçalo M. C. Silva, Pedro Morgado, Dinis O. Abranches, Margarida Bastos, Luís M. N. B. F. Santos, Eduardo J. M. Filipe, João A. P. Coutinho
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### SESSION B | Thursday, 23<sup>rd</sup> November, 14:00 - 15:00

- 14:00 **P\_B3.1 Systematic study on the electrical conductivity and viscosity of imidazolium and pyrrolidinium-based ionic liquids**  
Carlos F. P. Miranda, Luís M. N. B. F. Santos
- 14:12 **P\_B3.2 How electrode and membrane thicknesses affect capacitive energy storage with nanoporous supercapacitors**  
Daniele Paolini, Taras Verkholyak, Andriy Kuzmak, Svyatoslav Kondrat
- 14:24 **P\_B3.3 Self-assembly phenomena in deep eutectic solvents: a systematic molecular simulation study**  
Gonçalo M. C. Silva, João A. P. Coutinho
- 14:36 **P\_B3.4 Exploring the impact of sodium salts on the hydrotropic solubilization**  
Jordana Benfica, Afonso Cerqueira Martins, Germán Pérez-Sánchez, Seishi Shimizu, Nicolas Schaeffer, João A.P. Coutinho
- 14:48 **P\_B3.5 Exploring chain length mismatch and structural isomerism on thermotropic ionic liquid crystals from lysine-based surfactants**  
Isabel S. Oliveira, Maria J. Araújo, E. F. Marques

# POSTER COMMUNICATIONS

## SCREEN 4

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### SESSION A | Wednesday, 22<sup>nd</sup> November, 14:00 - 15:00

- 14:00** **P\_A4.1 Deposition and surface dynamics of ionic liquids in confined spaces**  
Artur F. M. Farinha, Luís M. N. B. F. Santos, and José C. S. Costa
- 14:12** **P\_A4.2 EMI TFSI effects on structural and mechanical properties of a composite material based on graphene oxide aerogels**  
Ploumistos Alexandros, Da Costa Romane, Fernandes Francisco, Porras-Gutierrez Ana-Gabriela, Rollet Anne-Laure, Sirieix-Plénet Juliette, Gaillon Laurent, Rizzi Cécile
- 14:24** **P\_A4.3 Unlocking plastic recycling: exploring eutectic solvents for selective polymer dissolution by COSMO-RS**  
Ana M. Ferreira, José Pedro Wojeicchowsk, João T. S. Martins, Mariana I. S. Aguiar, Simão Vidinha Pandeirada, João A. P. Coutinho, Andreia F. Sousa
- 14:36** **P\_A4.4 The adsorption and self-assembly of organics' from ionic liquid electrolyte**  
Heigo Ers, Liis Siinor, Piret Pikma
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### SESSION B | Thursday, 23<sup>rd</sup> November, 14:00 - 15:00

- 14:00** **P\_B4.1 Size effects of binary cation ionic liquid mixtures on capacitive energy storage**  
Anna Seltmann, Taras Verkholyak, Dariusz Gołowicz, Emmanuel Pameté, Andriy Kuzmak, Volker Presser, Svyatoslav Kondrat
- 14:12** **P\_B4.2 Using aqueous biphasic systems as membrane-free redox flow batteries**  
Catarina M. S. S. Neves, Marco Prazeres, Murilo L. Alcantara, Paula Navalpotro, Rebeca Marcilla, João A. P. Coutinho
- 14:24** **P\_B4.3 Electric double-layer structure of salt-in-protic ionic-liquid ethylammonium nitrate doped with lithium**  
Juan J. Parajó, Trinidad Méndez Morales, Pablo Vallet, Hadrián Montes, Josefa Salgado, María Villanueva, Antia Santiago, Luis M. Varela, Carlos M. Pereira, Ana T. S. C. Brandao, A. Fernando Silva, Renata Costa
- 14:36** **P\_B4.4 Formation and stabilization of metal nanoparticles in ionic liquid films**  
Alexandre C. P. M. Alves, Luís M. N. B. F. Santos, Margarida Bastos, and José C. S. Costa
- 14:48** **P\_B4.5 Ionic liquids-carbon scaffolding materials for fluids exchange**  
Abobakr K. Ziyada, Ahmed M. Abdelmagid, Fahd Rajab, Abdelbagi Osman



# POSTER COMMUNICATIONS

## SCREEN 5

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### SESSION A | Wednesday, 22<sup>nd</sup> November, 14:00 - 15:00

- 14:00** **P\_A5.1 Poly(ionic liquid) compounds as multifunctional cement additives**  
Anna Wolny, Alina Brzeczek-Szafran, Paulina Maksym, Anna Chrobok
- 14:12** **P\_A5.2 Triblock copolymers as versatile constituents of double stimuli-responsive ionic-liquid-based aqueous biphasic systems**  
Ana F. C. S. Rufino, Sara C. Ribeiro, Márcia C. Neves, João A.P. Coutinho, Francisca A. e Silva, Mara G. Freire
- 14:24** **P\_A5.3 Novel ionic liquid-based aqueous biphasic system for the selective recovery of platinum group metals from spent automotive catalytic converters**  
Flavia N. Braga, Filipe H. B. Sosa, Nicolas Schaeffer, Helena Passos, João A.P. Coutinho
- 14:36** **P\_A5.4 Association and coacervation of stimuli-responsive host-guest complexes driven by ionic interactions**  
Dmitriy Moreira, Pedro Mateus, Isabel Oliveira, Eduardo F. Marques, Nuno Basílio
- 14:48** **P\_A5.5 Efficient decontamination of chemical warfare agents by ionic liquids**  
Rafaela A. L. Silva, Inês Cruz, Tiago Gonçalves, Pedro Neto, Paula Lopes, Vânia Tira-Picos, Carlos A. M. Afonso, Andreia Rosatella
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### SESSION B | Thursday, 23<sup>rd</sup> November, 14:00 - 15:00

- 14:00** **P\_B5.1 Vesicles from cationic/anionic (catanionic) surfactant mixtures based on lysine derivatives: self-assembly and encapsulation of a bioactive molecule**  
Rui L. Machado, Andreia C. Gomes, Maria J. Araújo, Eduardo F. Marques
- 14:12** **P\_B5.2 Keratin recovery using ionic liquids and its application for biofilm processing**  
Cariny Polesca, Helena Passos, Bruno M. Neves, Jason P. Hallett, João A. P. Coutinho, Mara G. Freire
- 14:24** **P\_B5.3 Application of ionic-liquid-based aqueous biphasic systems in the extraction and purification of prostate-specific antigen from human serum**  
Marguerita E. Rosa, Maria S. M. Mendes, Ana P. M. Tavares, João A. P. Coutinho, Mara G. Freire, Francisca A. e Silva
- 14:36** **P\_B5.4 Design of ionic liquids as solvents for the materialization of biopolymers**  
Kaoru Nobuoka, Satoshi Kitaoka
- 14:48** **P\_B5.5 Removal of estrogens in an enzymatic membrane reactor using ionic liquids as reaction stabilizers**  
Oliwia Degórska, Weronika Badzińska, Jakub Zdarta