

# Curriculum vitae - EN

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## 1- PERSONAL DATA

SÓNIA PATRÍCIA MARQUES VENTURA

Campus Universitário de Santiago

Chemistry Department

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### Personal pages:

<http://www.researcherid.com/rid/D-3992-2012>

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## 2- FORMATION

### Year of Conclusion / Academic Degree / Institution / Classification

September 1<sup>st</sup> 2015 – present date / Post-Doctoral Research in Environmental Sciences / University of Aveiro

September 1<sup>st</sup> 2014 – August 31<sup>st</sup> 2015 / Invited Professor at the Chemistry Department / Biotechnology & Biochemistry position / University of Aveiro

2012 – August 31<sup>st</sup> 2014 / Post-Doctoral Research in Environmental Sciences / University of Aveiro

2007 - 2011 / Doctor in Chemical Engineering / University of Aveiro / Approved

2006 - 2007 / Master in Chemical Engineering / University of Aveiro / 18

2005 - 2006 / Graduation in Chemical Engineering / University of Aveiro / 15

## 3- PARTICIPATION IN RESEARCH PROJECTS

- Convénio GRICES/CAPES “Uso de perfluorocarbonetos na aeração de culturas de *Yarrowia lypolitica* para desenvolvimento de bioprocessos e produção de lipase” Biochemical Engineering Department of the Federal University of Rio de Janeiro (team member)
- Project POCTI/EQU/58152/2004 “Seleção de líquidos iónicos para separação de gases” (team member)
- Project PEst-OE/SAU/UI0177/2011 “Strategic Project - UI 177 - 2011-2012” (team member)

- Project PTDC/AAC-AMB/119172/2010 “Avaliação ecotoxicológica e tratamento de efluentes líquidos contaminados com líquidos iónicos” with the Biology Department of the University of Aveiro” (team member)
- Projeto Jovem Pesquisador - Fluxo Contínuo ref: 2014/01580-3; From: 01/01/2015 to 31/12/2018; "Processo biotecnológico visando o desenvolvimento de novos colorantes naturais microbianos para aplicação industrial" (associated researcher)
- Projeto Jovem Pesquisador - Fluxo Contínuo ref: 2014/16424-7; From: 01/02/2015 to 31/01/2019; "Otimização e aumento de escala do processo de extração líquido-líquido com líquidos iónicos (LIs) como ferramenta de separação sustentável do biofármaco antileucêmico L-Asparaginase (ASPase)" (associated researcher)
- Project FCT/FAPESP 2014/19793-3; From 01/10/2015 to 30/09/2018; "Otimização e aumento de escala de processos com líquidos iónicos como nova ferramenta de purificação da proteína verde fluorescente recombinante produzida por *Escherichia coli* "GFPurIL", collaboration with Universidade Estadual Paulista "Júlio de Mesquita Filho (team member)
- Project PTDC/ATP-EAM/5331/2014, accepted last 06/08/2015 "Toxicity of Mixtures of alternative solvents with industrial potential" in collaboration with the Biology Department from University of Aveiro” (team member)

#### **4- COMMISSIONS OF TRUST**

**Mc Substitute member (Portugal)** at the Earth System Science and Environmental Management (ESSEM) COST Action ES1408 under the theme **European network for algal-bioproducts (EUALGAE)**

#### **5- TEACHING ACTIVITIES**

**2007:** Elements of Chemistry and Physics; University of Aveiro (2 h/week)

**2008:** Laboratory of Chemical Engineering; University of Aveiro (3h/week)

**2008:** Chemistry Laboratory; University of Aveiro (2 h/week)

**2009:** Laboratory of Microbial Biotechnology; University of Aveiro (2 h/week)

**2009:** Chemistry Laboratory; University of Aveiro (2 h/week)

**2014:** Laboratories of Microbial Biotechnology; University of Aveiro (4 h/week)

**2014:** Chemical Engineering Reactions I; University of Aveiro (4 h/week)

**2015:** Applied Biotechnology; University of Aveiro (2 h/week)

**2015:** Laboratories of Biochemistry I (6 h/week)

**2015:** Laboratory of Microbial Biotechnology; University of Aveiro (4 h/week)

**2009:** Engineering of the Chemical Reactions; University of Aveiro (4 h/week)

## 6- CITATION METRICS

- Publications indexed in ISI = 44, H-index = 18, citations sum = 1042, at 26/01/2016
- Scopus; H-index = 18; Publications indexed = 45; citations sum = 1061 at 26/01/2016

## 7- PUBLICATIONS

### Thesis

- Gas liquid equilibria at high pressures, MsC thesis in Chemical Engineering, University of Aveiro, 2007
- Lipase production for extractive fermentation with ionic liquids, PhD thesis in Chemical Engineering, University of Aveiro, 2011

### Papers in International Scientific Periodicals with Referees

1. **Ventura, S.P. M.**; Pauly, Jérôme; Daridon, Jean L.; Marrucho, Isabel M.; Dias, Ana. M. A.; Coutinho, João A. P., High Pressure Solubility Data of Methane in Aniline and in Aqueous Aniline Systems, *Journal of Chemical Engineering Data*, **2007**, 52, 1100-1102
2. Freire, Mara G.; **Ventura, S. P. M.**; Santos, Luís M. N. B. F.; Marrucho, Isabel M.; Coutinho, João A. P., Evaluation of COSMO-RS for the prediction of LLE and VLE of water and ionic liquids binary systems, *Fluid Phase Equilibria*; **2008**, 268, 74-84
3. **Ventura, S. P. M.**; Pauly, Jérôme; Daridon, Jean L.; Lopes da Silva, J.A.; Marrucho, Isabel M.; Dias, Ana. M. A.; Coutinho, João A. P., High Pressure Solubility Data of Carbon Dioxide in Tri-iso-butyl(methyl)phosphonium Tosylate – Water Systems, *Journal of Chemical Thermodynamics*, **2008**, 40, 1187-1192
4. **Ventura, S. P. M.**; Neves, Catarina; Freire, Mara G.; Marrucho, Isabel M.; Coutinho, João A. P., Evaluation of Cation Influence on the Formation and Extraction Capability of Ionic-Liquid-Based Aqueous Biphasic Systems; *The Journal of Physical Chemistry B*, **2009**, 113, 5194-5199
5. **Ventura, S. P. M.**; Neves, Catarina; Freire, Mara G.; Marrucho, Isabel M.; Coutinho, João A. P., Evaluation of Anion Influence on the Formation and Extraction Capability of Ionic-Liquid-Based Aqueous Biphasic Systems; *The Journal of Physical Chemistry B*, **2009**, 113, 9304-9310
6. **Ventura, S.P.M.**; Gonçalves, Ana M. M.; Gonçalves, Fernando; Coutinho, João A. P., Assessing the Toxicity of [C<sub>3</sub>mim][Tf<sub>2</sub>N] to Aquatic Organisms of Different Trophic Levels, *Aquatic Toxicology*, **2010**, 96, 290-297
7. Freire, Mara G.; Neves, Catarina M.S.S.; **Ventura, S.P.M.**; Pratas, Maria J.; Marrucho, Isabel M.; Oliveira, João; Coutinho, João A.P.; Fernandes, Ana M., Solubility of Non Aromatic Ionic Liquids in Water and Correlation Using a QSPR Approach, *Fluid Phase Equilibria*, **2010**, 294, 234-240

8. **Ventura, S.P.M.;** Gardas, Ramesh L.; Gonçalves, Fernando; Coutinho, João A.P., Ecotoxicological Risk Profile of Ionic Liquids: Octanol-water distribution coefficients and toxicological data, *Journal of Chemical Technology & Biotechnology*, **2011**, 86, 957-963
9. **Ventura, S.P.M.;** Sousa, Sílvia G.; Freire, Mara G.; Serafim, Luísa S.; Lima, Álvaro S.; Coutinho, João A. P., Design of ionic liquids for lipase purification, *Journal of Chromatography B*, **2011**, 879, 2679-2687
10. **Ventura, S.P.M.;** Marques, Carolina S.; Rosatella, Andreia A.; Gonçalves, Fernando; Afonso, Carlos A.M.; Coutinho, João A.P., Toxicity Evaluation of Guanidinium-based Ionic Liquids to *Vibrio fischeri* Marine Bacteria, *Ecotoxicology and Environmental Safety*, **2011**, 76, 162-168
11. **Ventura, S.P.M.,** Sousa, S.G.; Serafim, L.S.; Lima, Á.S.; Freire, M.G.; Coutinho, J.A.P. Ionic Liquids Based Aqueous Two-Phase Systems with pH Controlled by Phosphate Buffer: The Cation Effect, *Journal of Chemical Engineering Data*, **2011**, 56, 4253-4260
12. **Ventura, S.P.M.,** Sousa, S.G.; Serafim, L.S.; Lima, Á.S.; Freire, M.G.; Coutinho, J.A.P. Ionic Liquids Based Aqueous Two-Phase Systems with pH Controlled by Phosphate Buffer: The Anion Effect, *Journal of Chemical Engineering Data*, **2012**, 57, 507-512
13. **Ventura, S.P.M.;** Barros, R.L.F.; Barbosa, J.M.P.; Soares, C.M.F.; Lima, A.S.; Coutinho, J.A.P. Production and purification of an extracellular lipolytic enzyme using ionic liquid-based aqueous Two-Phase Systems, *Green Chemistry*, **2012**, 14, 734-740
14. **Ventura, S.P.M.;** Santos, L.D.F.; Saraiva, J.; Coutinho, J.A.P. Concentration effect of hydrophilic ionic liquids on the enzymatic activity of *Candida antarctica* lipase B, *World Journal of Microbiology and Biotechnology*, **2012**, 28, 2303-2310
15. **Ventura, S.P.M.;** Santos, L.D.F.; Saraiva, J.; Coutinho, J.A.P. Ionic liquids microemulsions: the key to *Candida antarctica* lipase B superactivity, *Green Chemistry*, **2012**, 14, 1620-1625
16. **Ventura, S.P.M.;** de Barros, R.L.F.; Sintra, T.; Soares, C.M.F.; Lima, A.S.; Coutinho, J.A.P. Simple screening method to identify toxic/non-toxic ionic liquids: Agar diffusion test adaptation, *Ecotoxicology and Environmental Safety*, **2012**, 83, 55-62
17. Reis, I.A.O.; Santos, S.B.; Santos, L.A.; Oliveira, N.; Freire, M.G.; Pereira, J.F.B.; **Ventura, S.P.M.;** Coutinho, J.A.P.; Soares, C.M.F.; Lima, A.S. Increased Significance of food wastes: selective recovery of added-value compounds, *Food Chemistry*, **2012**, 135, 2453-2461
18. **Ventura, S.P.M.;** Gonçalves, A.M.M.; Sintra, T.; Pereira, J.L.; Gonçalves, F.; Coutinho, J.A.P. Designing Ionic Liquids: the Chemical Structure Role in the Toxicity, *Ecotoxicology*, **2013**, 22, 1-12
19. **Ventura, S.P.M.;** Gurbisz, M.; Ghavre, M.; Ferreira, F. M. M.; Gonçalves, F.; Beadham, I.; Quilty, B.; Coutinho, J. A. P.; Gathergood, N. Imidazolium and Pyridinium Ionic Liquids

- from Mandelic Acid Derivatives: Synthesis and Bacteria and Algae Toxicity Evaluation, *ACS Sustainable Chemistry & Engineering*, **2013**, 1, 393-402
20. **Ventura, S.P.M.**; Santos-Ebinuma, V. C.; Pereira, J. F. B.; Teixeira, M. F. S.; Pessoa, A.; Coutinho, J. A. P. Isolation of Natural Red Colorants from Fermented Broth using Ionic Liquid-based Aqueous Two-phase Systems, *Journal of Industrial Microbiology & Biotechnology*, **2013**, 40, 507-516
  21. Pereira, J.F.B.; **Ventura, S.P.M.**; e Silva, F.A.; Shahriari, S.; Freire, M.G.; Coutinho, J.A.P. Aqueous Biphasic Systems composed of Ionic Liquids and Polymers: A Platform for the Purification of Biomolecules, *Separation and Purification Technology*, **2013**, 113, 83-89
  22. e Silva, F.A., Sintra, T.E.; **Ventura, S.P.M.**; Coutinho, J.A.P. Recovery of Paracetamol from Pharmaceutical Wastes, *Separation and Purification Technology*, **2014**, 122, 315–322
  23. Sintra, T.E.; Cruz, R.; **Ventura, S.P.M.**; Coutinho, J.A.P. Phase Diagrams of Ionic Liquids-based Aqueous Biphasic Systems as a Platform for Extraction Processes, *The Journal of Chemical Thermodynamics*, **2014**, DOI: 10.1016/j.jct.2013.10.024
  24. **Ventura, S.P.M.**; e Silva, F.A.; Gonçalves, A.M.M.; Pereira, J.L.; Gonçalves, F.; Coutinho, J.A.P. Ecotoxicity analysis of cholinium-based ionic liquids to *Vibrio fischeri* marine bacteria, *Ecotoxicol. Environ. Saf.*, **2014**, 102, 48-54
  25. Carvalho, P.J.; **Ventura, S.P.M.**; Batista, M.L.S.; Schröder, B.; Gonçalves, F.; Esperança, J.; Mutelet, F.; Coutinho, J.A.P. Understanding the impact of the central atom on the ionic liquid behavior: Phosphonium vs ammonium cations, *J. Chem. Phys.*, **2014**, 2014, 140, 064505
  26. Taha, M.; e Silva, F.; Quental, M.V.; **Ventura, S.P.M.**; Freire, M.G.; Coutinho, J.A.P. Good's buffers as a basis for developing self-buffering and biocompatible ionic liquids for biological research, *Green Chem.* **2014**, 16, 3149-3159
  27. Domínguez, C.M.; Munoz, M.; Quintanilla, A.; de Pedro, Z.M.; **Ventura, S.P.M.**; Coutinho, J.A.P.; Casas, J.A.; Rodriguez, J.J. Degradation of imidazolium-based ionic liquids in aqueous solution by Fenton oxidation, *J. Chem. Technol. Biotechnol.*, **2014**, DOI: 10.1002/jctb.4366
  28. Alvarez-Guerra, E.; **Ventura, S.P.M.**; Coutinho, J.A.P.; Irabien A. Ionic Liquid-based Three Phase Partitioning (ILTPP) Systems: Ionic Liquid Recovery and Recycling, *Fluid Phase Equilib.*, **2014**, 371, 67-74
  29. de Souza, R.L.; Campos, V.C.; **Ventura, S.P.M.**; Soares, C.M.F.; Coutinho, J.A. P.; Lima, A.S. Effect of ionic liquids as adjuvants on PEG-based ABS formation and the extraction of two probe dyes, *Fluid Phase Equilib.*, **2014**, DOI: 10.1016/j.fluid.2014.04.011
  30. Alvarez-Guerra, E.; **Ventura, S.P.M.**; Coutinho, J.A.P.; Irabien A. Ionic liquid recovery in Ionic Liquid-based Three Phase Partitioning (ILTPP) processes, *AIChE J.* **2014**, *accepted*

31. Sintra, T.E.; **Ventura, S.P.M.**; Coutinho, J.A.P. Superactivity induced by micellar systems as the key for boosting the yield of enzymatic reactions, *J. Mol. Catalysis. B, Enz.*, **2014**, 107, 140-151
32. Kurnia, Kiki A.; Sintra, Tânia E.; Neves, Catarina M. S. S.; Shimizu, Karina; Canongia Lopes, José N.; Gonçalves, Fernando; Ventura, Sónia P. M.; Freire, Mara G.; Santos, Luís M. N. B. F.; Coutinho, João A. P. The Effect of the Cation Alkyl Chain Branching on Mutual Solubilities with Water and Toxicities, *Physical Chemistry Chemical Physics*, 2014, 16, 19952-19963
33. Francisca A. e Silva, Filipa Siopa, Bruna F.H.T. Figueiredo, Ana M.M. Gonçalves, Joana L. Pereira, Fernando Gonçalves, João A.P. Coutinho, Carlos A.M. Afonso and Sónia P.M. Ventura, Sustainable design for environment-friendly mono and dicationic cholinium-based ionic liquids, *Ecotoxicol. Environ. Saf.*, 2014, 108, 302-310
34. Filipa A. Vicente, Luciana P. Malpiedi, Francisca A. e Silva, Adalberto Pessoa Jr., João A.P. Coutinho and Sónia P.M. Ventura, Design of novel aqueous micellar two-phase systems using ionic liquids as co-surfactants for the selective extraction of (bio)molecules, *Sep. Pur. Tech.*, 2014, 135, 259-267\*
35. João H. Santos, Francisca A. e Silva, Sónia P. M. Ventura, João A. P. Coutinho, Ranyere L. de Souza, Cleide M. F. Soares and Álvaro S. Lima, Ionic liquid-based aqueous biphasic systems as a versatile tool for the recovery of antioxidant compounds, *Biotechnol. Prog.*, 2015, Doi: 10.1002/btpr.2000
36. Taha, M.; Almeida, M. R.; e Silva, F. A.; Domingues, P.; Ventura, S. P. M.; Coutinho, J. A. P.; Freire, M. G., Novel Biocompatible and Self-buffering Ionic Liquids for Biopharmaceutical Applications, *Chem. Eur. J.*, 2015, Doi: 10.1002/chem.201405693\*
37. João H. P. M. Santos, Francisca A. e Silva, João A. P. Coutinho, Sónia P. M. Ventura, and Adalberto Pessoa-Jr, Ionic liquids as a novel class of electrolytes in polymeric aqueous biphasic systems, 2015, Doi: 10.1016/j.procbio.2015.02.001
38. Ranyere L. Souza, Sónia P. M. Ventura, Cleide M. F. Soares, João A. P. Coutinho and Álvaro S. Lima, Lipase Purification Using Ionic Liquids as Adjuvants in Aqueous Two-Phase Systems, *Green Chem.*, 2015, 17, 3026-3034
39. Macarena Munoz, Carmen M. Domínguez, Zahara M. de Pedro, Asunción Quintanilla, Jose A. Casas, Sónia P.M. Ventura, João A.P. Coutinho, Role of the chemical structure of ionic liquids in their ecotoxicity and reactivity towards Fenton oxidation, *Sep. Pur. Tech.*, 2015, 150, 252–256
40. Luísa D. F. Santos, João A. P. Coutinho, Sónia P. M. Ventura, From water-in-oil to oil-in-water to optimize the production of fatty acids using ionic liquids in micellar systems, *Biotechnology Progress*, 2015, 31, 1473–1480

41. J. I. Santos, A. M. M. Gonçalves, J. L. Pereira, B. F. H. T. Figueiredo, F. A. e Silva, J. A. P. Coutinho, S. P. M. Ventura, F. Gonçalves, Environmental safety of cholinium-based ionic liquids: assessing structure–ecotoxicity relationships, *Green Chem.*, 2015, 17, 4657–4668
42. Tânia E. Sintra, Andreia Luís, Samuel N. Rocha, Ana I. M. C. Lobo Ferreira, Fernando Gonçalves, Luís M. N. B. F. Santos, Bruno M. Neves, Mara G. Freire, Sónia P. M. Ventura, and João A. P. Coutinho, Enhancing the Antioxidant Characteristics of Phenolic Acids by Their Conversion into Cholinium Salts, *ACS Sustainable Chemistry & Engineering*, 2015, 3, 2558–2565
43. Sze Ying Lee, Filipa A. Vicente, Francisca A. e Silva, Tânia E. Sintra, Mohamed Taha, Ianatul Khoiroh, João A. P. Coutinho, Pau Loke Show, and Sónia P. M. Ventura, Evaluating Self-buffering Ionic Liquids for Biotechnological Applications, *ACS Sustainable Chem. Eng.*, 2015, 3, 3420–3428
44. Paulo de Moraes, Fernando Gonçalves, João A. P. Coutinho, and Sónia P. M. Ventura, Ecotoxicity of Cholinium-Based Deep Eutectic Solvents, *ACS Sustainable Chem. Eng.*, 2015, 3, 3398–3404
45. Maria V.S. Oliveira, Bruna T. Vidal, Claudia M. Melo, Rita de C.M. de Miranda, Cleide M.F. Soares, João A.P. Coutinho, Sónia P.M. Ventura, Silvana Mattedi, Álvaro S. Lima, (Eco)toxicity and biodegradability of protic ionic liquids, *Chemosphere*, 147, 2016, 460–466
46. Filipa A. Vicente, Luciana D. Lario, Adalberto Pessoa Jr., Sónia P.M. Ventura, Recovery of Bromelain from pineapple stem residues using aqueous micellar two-phase systems with ionic liquids as co-surfactants, 2016, *Process Biochemistry*, doi:10.1016/j.procbio.2016.01.004

## 8- BOOKS AND BOOK CHAPTERS

### *Book Chapters*

Lipase Production and Purification from Fermentation Broth Using Ionic Liquids Sónia P. M. Ventura and João A. P. Coutinho, *in* Ionic liquids for lipid processing and analysis: opportunities and challenges (2015), edited by American Oil Chemists' Society (AOCS), <http://dx.doi.org/10.1016/B978-1-63067-047-4.00003-9>

## 8- COMMUNICATIONS

### **Invited Oral Communications**

- S.P.M. Ventura, Our contribution in the ionic liquids toxicity field; Symposium «Polish-Portuguese-German Symposium on Ionic Liquids», February 22th, 2013, Bremen, Germany

- S.P.M. Ventura, Aqueous biphasic systems as a technology for the selective extraction of (bio)molecules; Workshop «Extraction by use of ILs», April 24th-26th, 2014, Strasburg, France
- S.P.M. Ventura, Extraction of High-value compounds from macroalgae; Workshop of the Chemistry Department of University of Aveiro, November 4th, 2015, Aveiro, Portugal
- S.P.M. Ventura, a convite do Prof. Dr. Julio Romero sob o tema: ILs-based ABS as a technology for the selective fractionation of (bio)molecules, University of Santiago de Chile, April 2016

#### **Oral Communications in International Universities by Invitation**

- S.P.M. Ventura, “Introdução ao estudo de líquidos iónicos”, Tiradentes University, 2010, XII SEMPESq 2010
- S.P.M. Ventura, “Aplicação de sistemas aquosos bifásicos com líquidos iónicos na partição de biomoléculas”, Tiradentes University, 2010
- S.P.M. Ventura, “Líquidos iónicos – sua aplicação prática em processos de separação e purificação de biomoléculas diversas”, University of São Paulo, 2012

#### **Lectures by Invitation in International Universities**

- S.P.M. Ventura, a convite do Prof. Dr. Adalberto Pessoa Junior sob o tema - “Extração líquido-líquido para purificação de produtos biotecnológicos”, Curso de Farmácia e Bioquímica, Purificação de Produtos Biotecnológicos, Faculty of Pharmaceutical Sciences, University of São Paulo (2h), 2012
- S.P.M. Ventura, “Toxicity of ionic liquids”, University of Santiago de Compostela, 2015, REGALIS (Rede Galega de Líquidos Iónicos), 19th November, 2015

#### **Oral Communications**

1. **S. P. M. Ventura**; Pedro J. Carvalho, Mara G. Freire; "Ionic Liquids and Water: Phase Equilibria and Thermophysical Properties"; Ionic Liquids Week; QUILL Research Center, Belfast - North Ireland, April 19 - 27, **2007**
2. **S. P. M. Ventura**; "Solubilities of Carbon Dioxide in aqueous solutions of phosphonium ionic liquids"; International Conference Thermodynamics 2007; IFP- Rueil Malmaison, Paris, September, **2007**
3. **S.P.M. Ventura**, A.M.M. Gonçalves, F. Gonçalves, I.M. Marrucho and J.A.P. Coutinho, Toxicity of Ionic Liquids; VII Simpósio de Pós – Graduação do Departamento de Biologia da Universidade de Aveiro; University of Aveiro, Aveiro, Portugal, April; **2008**



4. M. M. Gonçalves, **S. P. M. Ventura**, F. Gonçalves, M. A. Z. Coelho, I. M. Marrucho and J. A. P. Coutinho, Toxicity Assessment of an Imidazolium- based Ionic Liquid; VIII Simpósio de Pós- Graduação do deBio; University of Aveiro, Aveiro Portugal, April **2009**
5. **S. P. M. Ventura**, A. M. M. Gonçalves, F. Gonçalves, M. A. Z. Coelho, I. M. Marrucho and J. A. P. Coutinho, Toxicity Evaluation of Aromatic and Non- aromatic Ionic Liquids in Species of Different Trophic Levels; VIII Simpósio de Pós-Graduação do deBio; University of Aveiro, Aveiro, Portugal, April **2009**
6. M. S. S. Neves, **S. P. M. Ventura**, J. F. B. Pereira., M. G. Freire, I. M. Marrucho and J. A. P. Coutinho, Cation- Based-Ionic Liquids Influence on the formation of Aqueous Biphasic Systems for Extraction of Biomolecules; XVII Simpósio Nacional de Bioprocessos; Natal, Brazil, August **2009**
7. **S.P.M. Ventura**, S.G. Sousa, M.G. Freire, A.S. Lima, J.A. P. Coutinho, Lipase purification using aqueous two-phase systems with ionic liquids – The quest for new alternative separation techniques; 2<sup>nd</sup> IMIL; Santiago de Compostela and A Coruna, Spain, July **2011**
8. F.A. e Silva, **S.P.M. Ventura**, J.A. P. Coutinho, Activity and stability of *Candida antarctica* lipase B (CALB) – effect of different ionic liquids; 2<sup>nd</sup> IMIL; Santiago de Compostela and A Coruna, Spain, July **2011**
9. **S.P.M. Ventura**, S.G. Sousa, M.G. Freire, A.S. Lima, J.A. P. Coutinho, The quest for new alternative separation techniques - aqueous two-phase systems with ionic liquids; ILSEPT; Sitges, Spain, September **2011**
10. M. Taha, F.A. e Silva, **S.P.M. Ventura**, F. Gonçalves, J.A.P. Coutinho, Good Buffer Ionic Liquids: A New Class of Ionic Liquids for pH Control in Aqueous and Organic Media; X CICECO Meeting; Aveiro, Portugal, **2013**
11. **S.P.M. Ventura**, F.A. e Silva, A.M.M. Gonçalves, J.L. Pereira, F. Gonçalves, J.A.P. Coutinho, Ecotoxicity Analysis of Cholinium-based Ionic Liquids; SETAC, Basel, Switzerland, **2014**
12. **S.P.M. Ventura**, F.A. e Silva, A.M.M. Gonçalves, J.L. Pereira, F. Gonçalves, J.A.P. Coutinho, New findings on the (eco)toxicity of cholinium-based ionic liquids; Microbiotec'13; Aveiro, Portugal, 6-8 Dezembro 2013, flash oral presentation
13. **S.P.M. Ventura**, F.A. e Silva, A.M.M. Gonçalves, J.L. Pereira, F. Gonçalves, J.A.P. Coutinho, Ecotoxicity Analysis of Cholinium-based Ionic Liquids; SETAC Maio, 2014, Basel, Switzerland
14. M. Caban, F.A. e Silva, **S.P.M. Ventura**, P. Stepnowski, J.A.P. Coutinho, Ionic liquid based aqueous biphasic system as a tool for drugs recovery from pharmaceutical wastes, ILSEPT 2014, June 29 to July 2, 2014, Toronto, Canada

15. E. Alvarez-Guerra, **S.P.M. Ventura**, J.A.P. Coutinho, A. Irabien, Lactoferrin recovery by means of Ionic Liquid-based Three Phase Partitioning (ILTPP), ILSEPT 2014, June 29 to July 2, 2014, Toronto, Canada
16. E. Alvarez-Guerra, **S.P.M. Ventura**, J.A.P. Coutinho, A. Irabien, Ionic Liquid Recycling in Ionic Liquid-based Three Phase Partitioning (ILTPP) systems, ILSEPT 2014, June 29 to July 2, 2014, Toronto, Canada
17. M. Caban, F.A. e Silva, **S.P.M. Ventura**, J. Kumirska, P. Stepnowski, J.A.P. Coutinho, Extraction of ketoprofen, ibuprofen and naproxen by ionic liquid based aqueous biphasic systems, 20th International Symposium on Separation Sciences, August 30 - September 2, 2014 Prague, Czech Republic
18. L.D.F. Santos, F.A. e Silva, **S.P.M. Ventura**, J.A.P. Coutinho, Enzyme Superactivity Induced by Ionic Liquids Aggregates as the Key for Boosting the Reactions Yield, ChemPor 2014, 10-12 September, Porto, Portugal
19. M.V. Quental, M. Taha, F.A. e Silva, **S.P.M. Ventura**, M.G. Freire, J.A.P. Coutinho Extraction of Bovine Serum Albumin (BSA) by Aqueous Biphasic Systems (ABS) composed of Ionic-Liquid-based Good's Buffers, ChemPor 2014, 10-12 September, Porto, Portugal
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82. Flávia A. Vieira, Helena T. Abreu, Sónia P. M. Ventura, João A. P. Coutinho, Micellar extraction of fucoxanthin from *Sargassum muticum*, ISGC 2015 - 3rd international Symposium on Green Chemistry, La Rochelle, France, 3-7 May 2015
83. Francisca A. e Silva, Magda Caban, Sónia P. M. Ventura, Piotr Stepnowski, João A. P. Coutinho, A novel approach for the valorization of pharmaceutical wastes using ionic liquids' aqueous solutions, ISGC 2015 - 3rd international Symposium on Green Chemistry, La Rochelle, France, 3-7 May 2015
84. Francisca A. e Silva, Filipa Siopa, Bruna F. H. T. Figueiredo, Ana M. M. Gonçalves, Joana L. Pereira, Fernando Gonçalves, João A. P. Coutinho, Carlos A. M. Afonso, Sónia P. M. Ventura, Novel more environmentally friendly mono and dicationic cholinium-based ionic

- liquids, ISGC 2015 - 3rd international Symposium on Green Chemistry, La Rochelle, France, 3-7 May 2015
85. Francisca A. e Silva, Jaime A. S. Coelho, Paulo de Morais, Fernando Gonçalves, João A. P. Coutinho, Carlos A. M. Afonso, Sónia P. M. Ventura, How “green” is HMF and its derivatives?, ISGC 2015 - 3rd international Symposium on Green Chemistry, La Rochelle, France, 3-7 May 2015
86. Miguel Vilas, Tânia E. Sintra, Sónia P. M. Ventura, Luis M. N. B. F. Santos, Ana I.M.C. Lobo Ferreira, Fernando Gonçalves, Emilia Tojo, João A. P. Coutinho, Synthesis and characterization of novel ionic liquids with tensioactive character, CICECO Meeting 2015, 14-15 April 2015, Aveiro, Portugal
87. Francisca A. e Silva, Magda Caban, Sónia P. M. Ventura, Piotr Stepnowski, João A. P. Coutinho, Ionic liquids’ aqueous solutions as a promising strategy in the valorization of solid wastes of pharmaceutical basis, CICECO Meeting 2015, 14-15 April, Aveiro, Portugal
88. Filipa A. Vicente, Luciana P. Malpiedi, Adalberto Pessoa Jr., João A. P. Coutinho, Sónia P.M. Ventura, (Bio)molecules Extraction using Novel Aqueous Micellar Two-Phase Systems with Ionic Liquids as Co-surfactants, CICECO Meeting 2015, 14-15 April 2015, Aveiro, Portugal
89. Enrique Alvarez-Guerra, Sónia P.M. Ventura, Manuel Alvarez-Guerra, João A.P. Coutinho, Angel Irabien, Assessment of the equilibrium in ionic liquid/salt aqueous biphasic systems: modeling of the binodal curve, IMIL 2015 - Iberoamerican Meeting on Ionic Liquids, Madrid, Spain, 2-3 July 2015
90. Jorge F. B. Pereira, Valéria C, Santos-Ebinuma, Adalberto Pessoa, Robin D. Rogers, Sónia P. M. Ventura, Mara G. Freire, João A. P. Coutinho, Facing the complexity of bioproducts’ purification using PEG-IL-based Aqueous Biphasic Systems: From antibiotics to L-Asparaginase, IMIL 2015 - Iberoamerican Meeting on Ionic Liquids, Madrid, Spain, 2-3 July 2015
91. João H. P. M. Santos, Cláudia Martins, Fábio Santos, João Coutinho, Sónia P.M. Ventura, Extraction of phenolic compounds from *Salicornia ramosissima* using Polymeric Aqueous Biphasic Systems, IMIL 2015 - Iberoamerican Meeting on Ionic Liquids, Madrid, Spain, 2-3 July 2015
92. Tânia E. Sintra, Samuel Rocha, Andreia Luís, Ana I.M.C. Lobo Ferreira, Fernando Gonçalves, Luis M. N. B. F. Santos, Bruno Miguel Neves,e, Sónia P. M. Ventura, Mara G. Freire, João A. P. Coutinho, Cholinium-based ionic liquids with antioxidant character, IMIL 2015 - Iberoamerican Meeting on Ionic Liquids, Madrid, Spain, 2-3 July
93. Jorge F. B. Pereira, Valéria C, Santos-Ebinuma, Adalberto Pessoa , Mara G. Freire, João A. P. Coutinho, Sónia P. M. Ventura, Selective purification of natural red colorants employing

Ionic Liquid-based Aqueous Two-Phase Systems, IMIL 2015 - Iberoamerican Meeting on Ionic Liquids, Madrid, Spain, 2-3 July 2015

- 94.** M. Martins, F.A. Vieira, M. H. Abreu, J.A.P. Coutinho, S.P.M. Ventura, Using ionic liquids in the purification of the antitumoral protein R-phycoerythrin from *Gracilaria vermiculophylla*, IMIL 2015 - Iberoamerican Meeting on Ionic Liquids, Madrid, Spain, 2-3 July 2015
- 95.** Flávia A. Vieira, Helena Abreu, João A. P. Coutinho, Sónia P. M. Ventura, Micellar extraction of the anti-tumoral carotenoid fucoxanthin from *Sargassum muticum*, IMIL 2015 - Iberoamerican Meeting on Ionic Liquids, Madrid, Spain, 2-3 July 2015
- 96.** Margarida Martins, Flávia A. Vieira, Helena Abreu, João A.P. Coutinho, Sónia P.M. Ventura, Using ionic liquids in the purification of the antitumoral protein R-phycoerythrin from *Gracilaria vermiculophylla*, IMIL 2015 - Iberoamerican Meeting on Ionic Liquids, Madrid, Spain, 2-3 July 2015
- 97.** Filipa A. Vicente, Luciana P. Malpiedi, Francisca A. e Silva, Adalberto Pessoa Jr, João A. P. Coutinho, Sónia P. M. Ventura, Under the Development of Aqueous Micellar Extraction Systems using Ionic Liquids as Co-surfactants, IMIL 2015 - Iberoamerican Meeting on Ionic Liquids, Madrid, Spain, 2-3 July 2015
- 98.** Sónia P. M. Ventura, Francisca A. e Silva, Ana M. M. Gonçalves, Joana L. Pereira, Fernando Gonçalves, João A. P. Coutinho, On the Evaluation of the Toxicity of Cholinium-based Ionic Liquids, IMIL 2015 - Iberoamerican Meeting on Ionic Liquids, Madrid, Spain, 2-3 July 2015
- 99.** João H. P. M. Santos, Francisca A. e Silva, Adalberto Pessoa-Jr, João A. P. Coutinho, Sónia P. M. Ventura, Selective aqueous biphasic systems based on Ionic liquids as electrolytes, IMIL 2015 - Iberoamerican Meeting on Ionic Liquids, Madrid, Spain, 2-3 July 2015
- 100.** Francisca A. e Silva, Rui M. C. Carmo, Andreia P. M. Fernandes, João A. P. Coutinho, Sónia P. M. Ventura, A sustainable approach for fractionation of natural flavonoids using aqueous biphasic systems composed of copolymers and cholinium-based ionic liquids, 2nd EuCheMS Congress on Green and Sustainable Chemistry, 4-7 October, 2015, Lisbon, Portugal
- 101.** João H. P. M. Santos, Cláudia R. Martins, Fábio F. Santos, João A. P. Coutinho, Sónia P. M. Ventura, Selective partition of phenolic compounds from *Salicornia ramosissima* using Polymeric Aqueous Biphasic Systems, 2nd EuCheMS Congress on Green and Sustainable Chemistry, 4-7 October, 2015, Lisbon, Portugal
- 102.** Filipa A. Vicente, Luciana P. Malpiedi, Francisca A.e Silva<sup>3</sup>, Adalberto Pessoa Jr, João A.P. Coutinho, Sónia P.M. Ventura, Ionic Liquids as Co-surfactants in the Design of Aqueous Micellar Extraction Systems, 2nd EuCheMS Congress on Green and Sustainable Chemistry, 4-7 October, 2015, Lisbon, Portugal

- 103.** Flávia A. Vieira, Ricardo J. R. Guilherme, Helena Abreu, Marcelo Maraschin, João A. P. Coutinho, Sónia P. M. Ventura, The extraction of fucoxanthin from brown macroalgae using surfactants, 2nd EuCheMS Congress on Green and Sustainable Chemistry, 4-7 October, 2015, Lisbon, Portugal
- 104.** Tânia E. Sintra, Andreia Luís, Samuel Rocha, Ana I.M.C. Lobo Ferreira, Fernando Gonçalves, Luis M. N. B. F. Santos, Bruno Miguel Neves, Sónia P. M. Ventura, Mara G. Freire, João A. P. Coutinho, Cholinium-based salts with enhanced water-solubility and antioxidant properties, 2nd EuCheMS Congress on Green and Sustainable Chemistry, 4-7 October, 2015, Lisbon, Portugal
- 105.** P. de Moraes, F. Gonçalves, J. A. P. Coutinho, S. P. M. Ventura, Evaluating the ecotoxicity of cholinium-based deep eutectic solvents, 2nd EuCheMS Congress on Green and Sustainable Chemistry, 4-7 October, 2015, Lisbon, Portugal
- 106.** M. Martins, F.A. Vieira, M.H. Abreu, J.A.P. Coutinho, S.P.M. Ventura, Extraction of R-Phycoerythrin from Red Macroalgae using Ionic Liquids as Solvents – a bridge between sunlight and energy, 2nd EuCheMS Congress on Green and Sustainable Chemistry, 4-7 October, 2015, Lisbon, Portugal

## **11- LIST OF ORIENTATIONS, WITH GRANTS**

- 1. Integration into research grant:** Partição da proteína albumina de soro bovino (BSA) usando sistemas aquosos bifásicos com líquidos iónicos. Maria Sílvia Gomes de Sousa. Fundação para a Ciência e Tecnologia Starting at September/2009.
- 2. Integration into research grant:** Efeito dos líquidos iónicos na atividade da lipase B de *Cândida antarctica*. Francisca A. e Silva. Fundação para a Ciência e Tecnologia, Starting at December/2008.
- 3. Integration into research grant:** “Avaliação ecotoxicológica e tratamento de efluentes líquidos contaminados com líquidos iónicos” Tânia Ereira Sintra, Fundação para a Ciência e Tecnologia, Starting at April/2009: Research grant included in the research project PTDC/AAC-AMB/119172/2010.
- 4. Integration into research grant:** “Avaliação ecotoxicológica e tratamento de efluentes líquidos contaminados com líquidos iónicos” Francisca A. e Silva, Fundação para a Ciência e Tecnologia, Starting at January/2013: Research grant included in the research project PTDC/AAC-AMB/119172/2010.
- 5. Integration into research grant:** “Avaliação ecotoxicológica e tratamento de efluentes líquidos contaminados com líquidos iónicos” Paulo de Moraes, Fundação para a Ciência e Tecnologia, Starting at March/2014: Research grant included in the research project PTDC/AAC-AMB/119172/2010.

**6. Integration into research grant:** “Líquidos Iônicos e a Gênese de Sistemas Aquosos Bifásicos: Equilíbrio entre Interações de van der Waals e Electrostáticas” Filipa Vicente, Fundação para a Ciência e a Tecnologia, Starting at: September/2014: Research grant included in the research project PTDC/AAC-AMB/119172/2010.

**7. Integration into research grant:** “Otimização e aumento de escala de processos com líquidos iônicos como nova ferramenta de purificação da proteína verde fluorescente recombinante produzida por *Escherichia coli*” Margarida Martins, Fundação para a Ciência e a Tecnologia, Starting at: February/2016: Research grant included in the research project 2014/19655-0 (Bilateral project between Portugal and Brazil).

## **9- ORIENTATION/SUPERVISION CONCLUDED**

### **Projects of Graduate students**

1. Partition of BSA using aqueous biphasic systems based in ionic liquids, Maria Sílvia Gomes de Sousa, University of Aveiro, 2010.
2. Effect of ionic liquids on the activity and stability of lipase B from *Candida antarctica*, Francisca A. e Silva, University of Aveiro, 2010.
3. Toxicity evaluation of ionic liquids towards green microalgae and marine bacteria, Ana Filipa Ligeiro de Jesus, University of Aveiro, 2010.
4. (Eco)toxicity of ionic liquids against green microalgae, Fábio Miguel Mendes Ferreira, University of Aveiro, 2011.
5. Biodegradability study of ionic liquids using a bacterial consortium isolated from a petrol source, Ana Luísa Ferreira Pinto, University of Aveiro, 2011.
6. Effect of ionic liquids in the enzymatic activity of lipase B from *Candida antarctica*, Luísa Daniela Ferreira Santos, University of Aveiro, 2011.
7. Toxicity study of ionic liquids towards the luminescent bacteria *Vibrio fischeri* (Microtox test), Pedro Ricardo Ferreira da Silva, University of Aveiro, 2011.
8. Toxicity of mixtures of ionic liquids, Maria Inês Franco Orosa, University of Aveiro, 2012.
9. Purification of enzymes using aqueous biphasic systems with ionic liquids and inorganic salts, Rafaela Alexandra Palma Cruz, University of Aveiro, 2012.
10. Toxicity of ionic liquids towards green fresh microalgae, Bruna Flávia Henriques Tavares Figueiredo, University of Aveiro, 2013
11. Toxicological evaluation of new ionic liquids with buffer activity, Melanie Filipa Duarte Neto da Costa, University of Aveiro, 2013
12. Extraction and purification of poly-3-hydroxyalkanoates with ABS based in ionic liquids, Inês Cláudia Simões Cardoso, University of Aveiro, 2014
13. Extraction and purification of poly-3-hydroxyalkanoates with ionic liquids, Viviane Marisa Reis Runa, University of Aveiro, 2014

14. Synthesis of new antioxidant cholinium-based ionic liquids, Samuel Noronha Rocha, University of Aveiro, 2013
15. Extraction of bio-active compounds with cardiovascular action from citrus using aqueous biphasic systems based in co-polymers and salts, Andreia Patrícia Macedo Fernandes, University of Aveiro, Biochemistry, 2015
16. Extraction of anti-tumor compounds from *Salicornia ramosissima* with ABS based in ionic liquids as adjuvants, Cláudia Isabel Rodrigues Martins, University of Aveiro, Biochemistry, 2015
17. Extraction of flavonoids with antitumoral activity from brown macroalgae, Ricardo Jorge Rodrigues Guilherme, University of Aveiro, Biochemistry, 2015
18. Development of sustainable processes for the recovery of active ingredients from pharmaceutical wastes, Mariam Achraf Mohamed Bahie el Din el Kholan, University of Aveiro, Biotechnology, 2015
19. Extraction of bio-active compounds with cardiovascular action from citrus using aqueous biphasic systems based in co-polymers and ionic liquids, Rui Miguel Costa Carmo, University of Aveiro, Biotechnology, 2015
20. Extraction of anti-tumor compounds from *Salicornia ramosissima* based in ABS with saccharides and ionic liquids, Fábio da Fonte Santos, University of Aveiro, Biotechnology, 2015
21. Application of aqueous two-micellar systems with ionic liquids on the extraction of anti-inflammatory compounds from macroalgae, Marta Alexandra Damião de Amorim, University of Aveiro, Biotechnology, 2015
22. Extraction and purification of poly-3-hydroxyalkanoates with liquid-liquid extraction techniques with alternative solvents, Fernando Luís de Góis Rodrigues de Sá, University of Aveiro, Biotechnology, 2015
23. Extraction and purification of poly-3-hydroxyalkanoates with liquid-liquid extraction techniques with alternative solvents, Rafael Santos do Carmo, University of Aveiro, Biotechnology, 2015

#### **Master thesis**

1. Recuperação dos princípios activos de resíduos medicamentosos com líquidos iónicos, Fábio Miguel Mendes Ferreira, Universidade de Aveiro, 2012/2013 (mestrado em Bioquímica)
2. Optimização da hidrólise de azeite por superactivação da CaLB, Luísa Daniela Ferreira Santos, Universidade de Aveiro, 2012/2013 (mestrado em Biotecnologia)

3. Extração micelar com líquidos iónicos, Filipa Alexandra André Vicente, Universidade de Aveiro e Universidade de São Paulo, 2013/2014 (mestrado em Bioquímica), com bolsa Santander aprovada
4. Uso de Líquidos iónicos como plataformas de reconcentração de drogas pesadas a aplicar no controlo anti-doping e tecnologia forense, João Henrique Picado Madalena Santos, Universidade de Aveiro e Universidade de São Paulo, 2012/2013 (mestrado em Biotecnologia), com bolsa Santander aprovada
5. Estudo das interacções dos líquidos iónicos com membranas celulares – a Técnica de Langmuir-Blodgett, Carlos Miguel Nóbrega Mendonça, Universidade de Aveiro, 2013/2014
6. Toxicity of magnetic ionic liquids, Maryam Nasirpour, Universidade de Aveiro, 2014/2015 (Erasmus Mundus)
7. Recovery of natural pigments from tomato industrial residues, Liliana Vieira Silva, University of Aveiro, 2014/2015 (Biotechnology)

#### **Master thesis with industry**

1. Recovery of proteins from red macroalgae, Margarida Martins, University of Aveiro, 2014/2015 (Biotechnology)
2. Recovery of fucoxanthin from microalgae, Bruna Figueiredo, University of Aveiro in collaboration with Necton S.A., 2014/2015 (Biotechnology)

## **10- ORIENTATION/SUPERVISION UNDER DEVELOPMENT**

#### **Master thesis**

1. Development of new micellar systems with ionic liquids as co-surfactants applied to the purification of phycobiliproteins, Inês Cardoso, 2015/2016 (Biotechnology)
2. Purification of tumoral biomarkers with micellar systems using ionic liquids as co-surfactants, Sara Costa, 2015/2016 (Biotechnology)
3. Separation of quiral pharmaceuticals using enantioselective aqueous biphasic systems, Samuel Rocha, 2015/2016 (Chemistry)

#### **Master thesis with industry**

1. Recovery of proteins from red macroalgae, Letícia Cunha, University of Aveiro, in collaboration with ALGAplus 2015/2016 (Biology)



### **PhD thesis**

1. The search for new biocompatible chemicals: the synthesis and properties of non-aromatic ionic liquids, Tânia Ereira Sintra, University of Aveiro, 2013/2016 (Doctoral Program of Chemistry)
2. Creating Technological Platforms for the Sustainable Recovery of Added-Value Active Pharmaceutical Ingredients from Pharmaceutical Wastes, Ana Francisca Osório de Almeida Coelho e Silva, University of Aveiro, 2014/2017 (Doctoral Program of Chemical Engineering)
3. Development of aqueous micellar two-phase systems with ionic liquids for the selective extraction of R-phycoerythrin from red macroalgae, Filipa Alexandra André Vicente, University of Aveiro, 2015/2018 (Doctoral Program of Chemical Engineering)
4. Purification of L-Asparaginase used in the acute lymphoblastic leukemia treatment by applying liquid-liquid extraction systems, João Henrique Picado Madalena Santos, University of Aveiro, 2015/2018 (Doctoral Program of Chemical Engineering)

### **Post-Doctoral research**

1. Extraction and Purification of added value bioactive compounds from seaweeds with green solvents, Flávia Aparecida Vieira, Grant Ciência sem Fronteiras, University of Aveiro, 2014/2016

## **11- EXCHANGE OF STUDENTS AND RESEARCHERS (CONCLUDED)**

### **Master thesis**

1. Activity of laccase against ionic liquids, Matheus Pereira, University of Aveiro in collaboration with Tiradentes University, March 2012-March 2013

### **PhD Students**

1. Lipase purification using ionic liquids as adjuvants in aqueous two-phase systems, Ranyere Souza, University of Aveiro in collaboration with Tiradentes University, October 2012-June 2013
2. Recyclability of the ionic liquid used in systems of the Ionic Liquid-based Three Phase Partitioning (ILTPP) technique, Enrique Álvarez-Guerra, University of Aveiro in collaboration with University of Cantabria, June 2013-September 2014
3. Synthesis of ionic liquids with surfactant character, Miguel Villas, University of Aveiro in collaboration with University of Vigo, November 2013-January 2014
4. Application of microfluidic devices as an intensification methodology to purify phycoerythrin, Filipa Vicente, University of Aveiro in collaboration with University of Ljubljana, Slovenia, September 2015-December 2015

#### **Post- Doctoral Researchers**

1. Extraction of anti-inflammatory drugs using ionic liquids-based aqueous biphasic systems, Magda Caban, University of Aveiro in collaboration with University of Gdansk, September 2013-December 2013, grant from University of Gdansk
2. Stability test of pharmaceuticals in ionic liquids, Magda Caban, University of Aveiro in collaboration with University of Gdansk, June 2014-July 2014, grant from COST
3. Extraction of pharmaceuticals using aqueous biphasic systems, Maciej Zawadzki, University of Aveiro in collaboration with Warsaw University of Technology, January 2012-April 2013
4. Partition of mandelic acid by applying ABS based in Chiral Ionic liquids, Magda Caban, University of Aveiro in collaboration with University of Gdansk, November 2015-December 2015

### **12- EXCHANGE OF STUDENTS AND RESEARCHERS (TO BE CONCLUDED)**

#### **PhD Students**

1. Fábio Aurélio Esteves Torres, Aplicação de sistemas aquosos bifásicos baseados em líquidos iônicos para extração de colorantes naturais, University of Aveiro in collaboration with Universidade Estadual Paulista “Júlio de Mesquita Filho”, July-December 2016

#### **Post- Doctoral Researchers**

1. Ooi Chien Wei, Solvent-induced aqueous biphasic systems to purify phycobiliproteins: integrating cell disruption and protein purification, University of Aveiro in collaboration with Monash University Malaysia, March-May 2016

### **13- INTERNATIONAL EXPERIENCE**

- *Université de Pau et des Pays de L'Adour (France)*: Solubility of gases in ionic liquids and aniline (1 month/2006).
- *Tiradentes University (Brazil)*: Purification of enzymes produced by fermentation using ionic liquids-based aqueous biphasic systems (4 months/2010).
- *Tiradentes University (Brazil)*: Extration of different added-value compounds from residues using aqueous biphasic systems with ionic liquids (2 months/2012).
- *University of São Paulo, Faculdade de Ciências Farmacêuticas (Brasil)*: Recovery of natural red colorants from the fermentation broth using aqueous biphasic systems with ionic liquids (2 months/2012); *Visiting Researcher*.

## **14- JURY PARTICIPATION IN MSc/PhD THESIS**

### **MSc thesis**

- **Samuel Bruno Santos**; “Aplicação de sistemas aquosos bifásicos formados por álcoois e sais de fosfato na extração de biomoléculas”, Tiradentes University, Brazil, March 2012 (master thesis)
- **Pedro Ricardo Ferreira Lima**; “Optimização da Produção de scFv anti-LDL(-) por *Pichia pastoris*”, University of Aveiro, Portugal, June 2013 (master thesis)
- **Renato Alexandre Moreira Azevedo**; “Immobilization of peroxidase on functionalized carbon nanotubes for synthesis of biocatalysts with high performance”, Mestrado integrado em bioengenharias, Universidade do Porto, Portugal, Junho 2013

### **Qualifications (intermediate defense)**

- **Igor Adriano de Oliveira Reis**, “Aplicação de sistemas aquosos bifásicos na extração de antioxidantes presentes em frutas exóticas”, Tiradentes University, Brazil, March 2012 (qualification)
- **Ana Filipa M. Cláudio**, “Extraction and purification of biopharmaceuticals using aqueous biphasic systems”, Universidade de Aveiro, Portugal, Junho 2014, avaliação cadeira de seminários II

### **PhD thesis**

- **Jorge Fernando Brandão Pereira**; “A tale of two bioprocesses”, University of Aveiro, Portugal, June 2013
- **Ana Filipa Martins Cláudio da Silva**; "Extraction of added-value products from biomass", Universidade de Aveiro, Portugal, Dezembro 2014

## **15- REFEREE OF JOURNALS OF INTERNATIONAL CIRCULATION WITH REFEREES**

**2011:** Journal of Chemical Engineering Data

**2012:** Process Biochemistry

**2012:** Environmental Toxicology

**2012:** Colloids and Surfaces A: Physicochemical and Engineering Aspects

**2012:** Bioprocess and Biosystems Engineering

**2014:** Ecotoxicology and Environmental Safety

**2015:** RSC Advances

**2015:** Critical Reviews in Biotechnology

**2016:** Chemosphere

## **16- PARTICIPATION IN COURSES**

**2010:** “Processos de purificação e separação aplicados a proteínas”, EEL-USP, Lorena, São Paulo, Brazil

**2013:** “REGALIs Summer School”, O Grove, Spain

## **17- Prizes/Awards and Distinctions**

**2009:** Best poster at VI Jornadas CICECO, University of Aveiro

**2012:** Paper “Ionic liquids microemulsions: the key to *Candida antarctica* lipase B superactivity”, front cover of the Green Chemistry journal (publicized in the *Journal online of the University of Aveiro*)

**2013:** Paper “Imidazolium and Pyridinium Ionic Liquids from Mandelic Acid Derivatives: Synthesis and Bacteria and Algae Toxicity Evaluation”, front cover of the ACS Sustainable Chemistry & Engineering (publicized in the *Journal online of the University of Aveiro* and *Ciência Hoje*)

## **18- ORGANIZATION OF/ACTIVE PARTICIPATION IN NATIONAL/INTERNATIONAL CONFERENCES OR MEETINGS**

**2009:** 1<sup>st</sup> IMIL - 1<sup>st</sup> Iberian Meeting on Ionic Liquids, Aveiro, Portugal (team member)

**2013:** Polish-Portuguese-German Symposium on Ionic Liquids, Bremen, Germany (Portuguese coordinator)

**2014:** Local Organising Committee, ECTP 2014, 20<sup>th</sup> European Conference on Thermophysical Properties, 31<sup>st</sup> August-4<sup>th</sup> September, 2014, Porto, Portugal

**2015:** Co-Chair at the Session: Rational design of chemicals and pharmaceuticals and other input prevention measures towards sustainable technological development; SETAC Europe 25<sup>th</sup> Annual meeting, 3-7 May, Barcelona, Spain

## **19- INVITATIONS**

**2014:** Book Chapter: invitation of the American Oil Chemists Society to write a chapter entitled “Lipase production and purification from fermentation broth using ionic liquids” to be included in the book “Ionic liquids for lipid processing and analysis: opportunities and challenges”.

**2014:** Invited oral presentation at Workshop entitled “Extraction by use of Ionic Liquids”; with the presentation entitled “Aqueous biphasic systems as a technology for the selective extraction of (bio)molecules”, April, Strasbourg

**2014:** Core team member of the Doctoral Program proposal on Ionic liquids ref: PD/00196/2013

**2015:** S.P.M. Ventura, “Toxicity of ionic liquids”, University of Santiago de Compostela, 2015, REGALIS (Rede Galega de Líquidos Iónicos), 19th November, 2015

**2016:** S.P.M. Ventura, a convite do Prof. Dr. Julio Romero sob o tema: ILs-based ABS as a technology for the selective fractionation of (bio)molecules, University of Santiago de Chile, April 2016

## **20- LANGUAGES\***

<b>Language</b>	<b>Oral Comprehension</b>	<b>Reading</b>	<b>Oral Interaction</b>	<b>Oral Production</b>	<b>Writing</b>
Portuguese**	C2	C2	C2	C2	C2
English	B2	B2	B2	B2	B2
Spanish	A2	A2	A1	A1	A1

(\*) Common European Framework of Reference

(\*\*) Native language