

Curriculum vitae

1. Dados pessoais

1. Personal data

Nome completo

Full name

Mara Guadalupe Freire Martins

BI

National identity card

11531875-5

Local e data de nascimento

Birth place and date

Oliveira do Bairro 13-11-1979

Pais de nacionalidade

Nationality

PORTUGAL

Morada institucional

Institutional address

Departamento de Química
Campus Universitário de Santiago
Universidade de Aveiro
3810-193 Aveiro
PORTUGAL

Contactos

Contact data

Telefone: +351 234 370 957

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Email: mmartins@dq.ua.pt

2. Formação académica

2. Academic degrees

Ano	Grau académico	Instituição	Classificação
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Year	Academic degree	Institution	Classification
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2003	Licenciatura/Degree	Universidade de Aveiro	16
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3. Actividades anteriores e situação actual em termos científicos e/ou profissionais
3. Previous and current scientific and/or professional activities

01 January - 30 June 2003, Bolseira de Iniciação à Investigação Científica (BIC), Chemistry Department, University of Aveiro

4. Área de actividade científica
4. Area of scientific activity

Ph.D student in Chemical Engineering (Universidade de Aveiro (Portugal) / Universidade Federal do Rio de Janeiro (Brazil))

5. Domínio de especialização
5. Domain of specialization

Applied Thermodynamics

6. Actuais interesses de investigação
6. Present research interests

Emulsion stability
Microscopy and Image Analysis
Aeration of Bioprocesses
Solubility and Mass Transfer in Aqueous Dispersed Organic Systems
Mutual solubilities of novel solvents (fluorinated compounds and ionic liquids) and water
Surface phenomena of novel solvents (fluorinated compounds and ionic liquids)

7.Outras competências/actividades
7. Other skills/activities

Colloid and Surface Chemistry
Solubility of Gases in Blood Substitutes

8. Participação em projectos
8. Participation in research projects

POCTI/EQU/44427/2002 (member of team)
POCI/EQU/58239/2004 (member of team)

9. Prémios e Distinções
9. Prizes and awards

Best Chemistry Student in Aveiro University in 2002-2003 by Dow Chemical in 2004
Best poster in 11th ISSP by IUPAC in 2004

10. Publicações
10. Publications

Artigos em revistas de circulação internacional com arbitragem científica / Papers in international scientific periodicals with referees

Dias, A. M. A.; Freire, M. G.; Coutinho, J. A. P. and Marrucho, I. M., Solubility of Oxygen in Liquid Perfluorocarbons, Fluid Phase Equilibria, 222-223 (2004) 325-330.

Freire, M. G.; Dias, A. M. A.; Coelho, M. A. Z.; Coutinho, J. A. P. and Marrucho, I. M., Ageing Mechanisms in Perfluorocarbon Emulsions using image Analysis, J. Colloid and Interface Sci., 286 (2005) 224-232.

Freire, M. G.; Mokbel, I.; Jose, J.; Marrucho, I. M. and Coutinho, J. A. P., Solubility of Hexafluorobenzene in Aqueous Salt Solutions from 280 to 340 K, J. Chem. Eng. Data, 50 (2005) 237-242.

Freire, M. G.; Dias, A. M. A.; Coutinho, J. A. P.; Coelho, M. A. Z. and Marrucho, I. M., Enzymatic Method for Determining Oxygen Solubility in Perfluorocarbon Emulsions, Fluid Phase Equilibria, 231 (2005) 109-113.

Publicações em actas de encontros científicos / Papers in conference proceedings

Freire, M. G., Carvalho, P. J., Queimada, A. J., Santos, L. M. N. B. F., Marrucho, I. M. and Coutinho, J. A. P., Phase equilibria between water and ionic liquids, Enpromer, Rio de Janeiro, Brazil, 2005.

Amaral, P. F. F., Freire, M.G., Lehocý, M., Barros, A. M., Coelho, M. A. Z. and Coutinho, J. A. P., Cell wall properties of *Y. lipolytica* and its interaction with perfluorochemicals, Enpromer, Rio de Janeiro, Brazil, 2005.

Freire, M. G., Queimada, A. J., Carvalho, P. J., Marrucho, I. M., Santos, L. M. N. B. F. and Coutinho, J. A. P., Phase Equilibria and Interfacial Properties of Water + Perfluorocarbons: Measurements and Modelling, Enpromer, Rio de Janeiro, Brazil, 2005.

Freire, M.G., Santos, L. M. N. B. F., Marrucho, I. M. and Coutinho, J. A. P., Liquid-liquid equilibrium between water and ionic liquids, The Seventeenth European Conference on Thermophysical Properties, Bratislava, Slovak Republic, 2005.

Freire, M. G., Queimada, A. J., Carvalho, P.J., Marrucho, I.M., Santos, L. M. N. B. F. and Coutinho, J.A.P., Liquid-liquid equilibrium and interfacial properties of water and perfluorocarbons: measurements and modeling, The Seventeenth European Conference on Thermophysical Properties, Bratislava, Slovak Republic, 2005.

Trindade, J. R., Freire, M. G., Amaral, P. F. F., Coelho, M. A. Z., Coutinho, J.A.P. and Marrucho, I. M., Stability of oil-in-water emulsions using *Yarrowia lipolytica*, Chempor, 9th International Chemical Engineering Conference, Coimbra, Portugal, 2005.

Silva, J. M., Amaral, P. F.F., Freire, M. G., Lehocý, M., Barros, A. M., Silva J. A. L., Coelho, M. A. Z., Marrucho, I. M. and Coutinho, J. A. P., Characterization of Bioemulsifier from *Yarrowia lipolytica* (IMUFRJ 50682), Chempor, 9th International Chemical Engineering Conference, Coimbra, Portugal, 2005.

Freire, M. G., Santos, L. M. N. B. F., Marrucho, I. M. and Coutinho, J. A. P., Water Solubility in Pure Fluorinated Compounds, 21st European Symposium on Applied Thermodynamics, Jurata, Poland, 2005.

Freire, M. G., Dias, A. M. A., Coelho, M. A. Z., Marrucho, I. M. and Coutinho, J. A. P., Oxygen Solubility in Perfluorocarbon Emulsions, 11th International Symposium on Solubility Phenomena, Aveiro, Portugal, 2004.

Freire, M. G., Santos, L. M. N. B. F., Marrucho, I. M., Coutinho, J. A. P., Water Solubility in Pure Perfluorocarbons, 11th International Symposium on Solubility Phenomena, Aveiro, Portugal, 2004.

Freire, M. G., Dias, A., M. A. Coelho, M. A. Z., Marrucho, I. M. and Coutinho, J. A. P., Oxygen Solubility in Perfluorocarbon Emulsions using an Enzymatic Method, XV

Congresso Brasileiro de Engenharia Química e II Congresso Brasileiro de Termodinâmica Aplicada (COBEQ), Curitiba - Paraná, Brasil, 2004.

Freire, M. G., Dias, A. M. A., Coelho, M. A. Z. and Marrucho, I. M., Study of the Stability and Oxygen Solubility of Perfluorocarbon Emulsions, 15th Symposium on Thermophysical Properties, Boulder (CO), USA, 2003.

Outras publicações / Other publications

Freire, M. G., Santos, L. M. N. B. F., Marrucho, I. M. and Coutinho, J. A. P., Solubility of Water in Liquid Perfluorocarbons, in Book of Abstracts, 14th European Symposium on Fluorine Chemistry, Poznan, Poland, 2004.

Freire, M. G., Dias, A. M. A., Coelho, M. A. Z., Marrucho, I. M. and Coutinho, J. A. P., Influence of Several Factors in the Ageing Mechanisms of Perfluorocarbon Emulsions, in Book of Abstracts, 14th European Symposium on Fluorine Chemistry, Poznan, Poland, 2004.

Freire, M. G., Dias, A. M. A., Coelho, M. A. Z., Coutinho, J. A. P. and Marrucho, I. M., Enzymatic Method for Determining Oxygen Solubility in Perfluorocarbon Emulsions, in Book of Abstracts, 20th ESAT, Koblenz, Germany, 2003.

Freire, M. G., Dias, A. M. A., Coelho, M. A. Z., Coutinho, J. A. P. and Marrucho, I. M., Study of Perfluorocarbon Emulsions Stability Using Image Analysis, in Book of Abstracts, 20th ESAT, Koblenz, Germany, 2003.

Freire, M. G., Dias, A. M. A., Coelho, M. A. Z., Coutinho, J. A. P. and Marrucho, I. M., Blood Substitutes: Stability and Oxygen Solubility, in Book of Abstracts, Jorge Calado: 40 Years of Molecular Thermodynamics, Lisbon, Portugal, 2003.

Marrucho, I. M., Freire, M. G., Dias, A. M. A., Coelho, M. A. Z. and Coutinho, J. A. P., Perfluorocarbons and their Emulsions: Oxygen Solubility and Stability Issues”, in Book of Abstracts, 1as Jornadas do Centro de Investigação em Materiais Cerâmicos e Compósitos (CICECO), Universidade de Aveiro, Portugal, 2003.

Freire, M. G., Dias, A. M. A., Coelho, M. A. Z., Coutinho, J. A. P. and Marrucho, I. M., Perfluorocarbon Emulsions: Stability and Gas Solubility, in Book of Abstracts, 19th ESAT, Santorini, Greece, 2002.

11. Comunicações

11. Communications

Comunicações orais / Oral communications

Freire, M. G., Queimada, A. J., Carvalho, P. J., Marrucho, I. M., Santos, L. M. N. B. F. and Coutinho, J. A. P., Phase Equilibria and Interfacial Properties of Water + Perfluorocarbons: Measurements and Modelling, Enpromer, Rio de Janeiro, Brazil, 2005.

Amaral, P. F. F., Freire, M.G., Lehocký, M., Barros, A. M., Coelho, M. A. Z. and Coutinho, J. A. P., Cell wall properties of *Y. lipolytica* and its interaction with perfluorochemicals, Enpromer, Rio de Janeiro, Brazil, 2005.

Freire, M.G., Santos, L. M. N. B. F., Marrucho, I. M. and Coutinho, J. A. P., Liquid-liquid equilibrium between water and ionic liquids, The Seventeenth European Conference on Thermophysical Properties, Bratislava, Slovak Republic, 2005.

Freire, M.G., Coelho, M.A.Z., Marrucho, I.M., Coutinho, J.A.P., Ageing Mechanisms of Perfluorocarbon Emulsions using Image Analysis, II CICECO Meeting, Aveiro, Portugal, 2005.

Freire, M. G., Mokbel, I., Jose, J., Marrucho, I. M., Coutinho, J. A. P., Solubility of Hexafluorobenzene in Aqueous Salt Solutions from 280 to 340 K, 11th Symposium on Solubility Phenomena, Aveiro, Portugal, 2004.

Comunicações em painel ("poster") / Posters in conferences

Freire, M. G., Queimada, A. J., Carvalho, P.J., Marrucho, I.M., Santos, L. M. N. B. F. and Coutinho, J.A.P., Liquid-liquid equilibrium and interfacial properties of water and perfluorocarbons: measurements and modeling, The Seventeenth European Conference on Thermophysical Properties, Bratislava, Slovak Republic, 2005.

Trindade, J. R., Freire, M. G., Amaral, P. F. F., Coelho, M. A. Z., Coutinho, J.A.P. and Marrucho, I. M., Stability of oil-in-water emulsions using Yansan from *Yarrowia lipolytica*, Chempor, 9th International Chemical Engineering Conference, Coimbra, Portugal, 2005.

Silva, J. M., Amaral, P. F.F., Freire, M. G., Lehocký, M., Barros, A. M., Silva J. A. L., Coelho, M. A. Z., Marrucho, I. M. and Coutinho, J. A. P., Characterization of Bioemulsifier from *Yarrowia lipolytica* (IMUFRJ 50682), Chempor, 9th International Chemical Engineering Conference, Coimbra, Portugal, 2005.

Freire, M. G., Santos, L. M. N. B. F., Marrucho, I. M. and Coutinho, J. A. P., Water Solubility in Pure Fluorinated Compounds, 21st European Symposium on Applied Thermodynamics, Jurata, Poland, 2005.

Freire, M.G., Cisteré, N.B., Santos, L. M. N. B. F., Marrucho, I.M., Coutinho, J.A.P., Solubility of Water in Liquid Fluorinated Compounds, Thermodynamics, Sesimbra, Portugal, 2005.

Amaral, P.F.F., Freire, M.G., Lehocky, M., Coelho, M.A.Z., Barros, A.M., Coutinho, J.A.P., Cell Wall Properties of *Yarrowia lipolytica* and its Interaction with Hydrophobic Compounds, II CICECO Meeting, Aveiro, Portugal, 2005.

Freire, M. G., Santos, L. M. N. B. F., Marrucho, I. M. and Coutinho, J. A. P., Solubility of Water in Liquid Perfluorocarbons, 14th European Symposium on Fluorine Chemistry, Poznan, Poland, 2004.

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Freire, M. G., Dias, A., M. A. Coelho, M. A. Z., Marrucho, I. M. and Coutinho, J. A. P., Oxygen Solubility in Perfluorocarbon Emulsions using an Enzymatic Method, XV Congresso Brasileiro de Engenharia Química e II Congresso Brasileiro de Termodinâmica Aplicada (COBEQ), Curitiba - Paraná, Brasil, 2004.

Marrucho, I. M., Freire, M. G., Dias, A. M. A., Coelho, M. A. Z. and Coutinho, J. A. P., Perfluorocarbons and their Emulsions: Oxygen Solubility and Stability Issues, 1as Jornadas do Centro de Investigação em Materiais Cerâmicos e Compósitos (CICECO), Aveiro, Portugal, 2003.

Freire, M. G., Dias, A. M. A., Coelho, M. A. Z. and Marrucho, I. M., Study of the Stability and Oxygen Solubility of Perfluorocarbon Emulsions, 15th Symposium on Thermophysical Properties, Boulder (CO), USA, 2003.

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Freire, M. G., Dias, A. M. A., Coelho, M. A. Z., Coutinho, J. A. P. and Marrucho, Study of Perfluorocarbon Emulsions Stability Using Image Analysis, in Book of Abstracts, 20th ESAT, Koblenz, Germany, 2003.

Freire, M. G., Dias, A. M. A., Coelho, M. A. Z., Coutinho, J. A. P. and Marrucho, Blood Substitutes: Stability and Oxygen Solubility, in Book of Abstracts, Jorge Calado: 40 Years of Molecular Thermodynamics, Lisbon, Portugal, 2003.

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