

CURRICULUM VITAE

PERSONAL INFORMATION

Nome **Ana Filipa da Silva Ferreira**

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Public Profile
Researcher ID: B-7312-2014;
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RESUME

Ana Ferreira is a Post-doctoral in the area of Environment and Energy at the Mechanical Engineering Department of IST, performing research on LCA and alternative biomass and biofuels. Her academic background is in Chemistry, in the environmental area of analysis of atmospheric aerosols (2005) and atmospheric exposure (2008). She obtained her PhD in Environmental Engineering at IST of University of Lisbon, with research in life cycle of alternative pathways for biohydrogen production.

She has 11 papers in international peer-reviewed journals, 1 book chapter and more than 28 papers in international conferences. She has been awarded third place in Young European Arena of Research (YEAR) during the Transportation Research Arena (TRA) in 2012. Her main interests are: life cycle analysis (energy consumption/demand and pollutant emissions), biomass, particle matter, conversion technologies, biofuels, and alternative energy research area.

PROFESSIONAL EXPERIENCE

Academic formation area

Date	1/03/2014 - present
Activity	Post-Doctorate Researcher in Mechanical Engineering, at IST.
Research plan	“Flexible and Efficient use of alternative biomass (Biorefinery concept)” Biomass, conversion technologies, biofuels and high value products and life cycle analysis area
Institution	IDMEC/IST – Instituto de Engenharia Mecânica do Instituto Superior Técnico, Universidade de Lisboa, Portugal
Date	1/11/2013 -1/02/2014
Activity	Scientific research Grant at IDMEC / Instituto Superior Técnico
Research plan	Scientific research in biomass and life cycle analysis and biorefinery assessment. Evaluation of characterization of different biomass during combustion process in the drop tube furnace. Ultrasound extraction of Microalgae. Thermogravimetric analysis of microalgae. Slow pyrolysis of microalgae to obtain bio-oil, bio-char and bio-gas.
Institution	IDMEC/IST Instituto de Engenharia Mecânica at Instituto Superior Técnico, Universidade de Lisboa, Portugal
Date	1/10/2009- 30/09/2013
Activity	PhD Scientific research grant in Environmental Engineering, at IST (ref. SFRH/BD/60373/2009) (Very Good)
Research plan	“Evaluation of energy consumption and CO ₂ emissions of alternative pathway for biohydrogen production”. Area of life cycle analysis, biohydrogen production, bio-oil and pigments, microalgae, biofuels and application on road vehicles.

Institution Collaboration	IDMEC - Departamento de Transportes, Energia e Ambiente. Instituto Superior Técnico. Laboratório Nacional de Energia e Geologia, Unidade de Bioenergia.
Date Activity	9/03/2009 – 30/09/2009 Scientific research Grant at IDMEC / Instituto Superior Técnico
Research plan	Life cycle analysis of biohydrogen production using <i>software's</i> such as SimaPro, GREET, GEMIS...
Institution	IDMEC/IST Instituto de Engenharia Mecânica de Instituto Superior Técnico, Universidade de Lisboa, Portugal
Date Activity	1/01/2009 – 8/03/2009 Volunteer research
Research plan	Initiation of life cycle analysis of biohydrogen production using <i>software's</i> such as SimaPro, GREET, GEMIS...
Institution	IDMEC/IST Instituto de Engenharia Mecânica de Instituto Superior Técnico, Universidade de Lisboa, Portugal
Date Activity	1/02/2008 – 1/11/2008 Scientific research Grant at FCUL. <i>Research grant under the PAHLIS project - “Contamination of Urban Atmosphere of Lisbon for Polycyclic Aromatic Hydrocarbons”</i>
Research plan	Scientific research in Analytic chemistry and analysis of atmospheric pollutants (aerosols) Analysis of inorganic compounds of particulate matter in an urban atmospheric at Lisbon. Ionic Chromatography analysis. Establishment of valid proceedings of sampling of organic compounds (PAHs) in an urban atmosphere. Sampling analysis by GC-MS Analysis of the samples through GC-MS for organic chemistry and quantification by thermal-optical method of organic and elemental carbon (Aveiro University). Calculation of trajectories of air mass through Hysplit model.
Institution	Electroanalytical and environmental chemistry laboratory of Chemistry and Biochemistry department of Faculdade de Ciências da Universidade de Lisboa (FCUL), Lisbon, Portugal
Collaboration	Environmental Engineering department of Universidade de Aveiro, Portugal
Dates Activity	1/05/2007 – 31/07/2007 Technical assistant – Analytical chemistry
Principal subjects / occupational skills covered	Quality control of products manufactured by chromatographic techniques. Validation of chemical analytical methods for certain compounds. Validation of chromatographic methods (HPLC, GC e IC).
Industry	Hovione – Pharmaceutical Industry at Sete Casas, Loures, Portugal
Datas Actividade Empresa	1/10/2007 – 30/10/2008 Educational tutor Às de Saber – Expo Norte, Lisbon
Date Activity	01/03/2006 – 30/02/2007 Scientific introduction research Grant at FCUL. Research grant under the 'UMAQ - Analysis of urban aerosol samples and marine'
Research plan	Scientific research in Analytical chemistry, sampling of atmospheric aerosols and analysis through ionic and gas chromatography (IC and GC-MS) of ionic and organic compounds, respectively.
Institution	Electroanalytical and environmental chemistry laboratory of Chemistry and Biochemistry department of Faculdade de Ciências of Universidade de Lisboa (FCUL), Lisbon, Portugal
Collaboration	Environmental Engineering department of Universidade de Aveiro, Portugal, and Atlântica University, Lisbon, Portugal
Date Activity	1/08/2005 – 31/03/2006 Volunteer Researcher
Research plan	Scientific research in Analytical chemistry, sampling of atmospheric aerosols and analysis through ionic and gas chromatography (IC and GC-MS) of ionic and organic compounds, respectively.
Institution	Electroanalytical and environmental chemistry laboratory of Chemistry and Biochemistry

department of Faculdade de Ciências of Universidade de Lisboa (FCUL), Lisbon, Portugal

Date **1/09/2004 – 31/07/2005**
Activity **Trainee - Chemical course at FCUL**
Research plan Scientific research in Analytical chemistry, sampling of atmospheric aerosols and analysis through ionic and gas chromatography (IC and GC-MS) of ionic and organic compounds, respectively.
Institution Electroanalytical and environmental chemistry laboratory of Chemistry and Biochemistry department of Faculdade de Ciências of Universidade de Lisboa (FCUL), Lisbon, Portugal

EDUCATION AND TRAINING

Date **1/10/2009 – 14/11/2013**
Degree **PhD in Environmental Engineering**
Area Life cycle analysis, biohydrogen production through biological processes, microalgae, alternative fuels and road vehicle application.
Thesis "Evaluation of energy consumption and CO₂ emissions of alternative pathway for biohydrogen production"
Classification Very Good
Institution IDMEC/IST Instituto de Engenharia Mecânica of Instituto Superior Técnico, Universidade de Lisboa, Portugal
National Laboratory of Energy and Geology collaboration (LNEG)

Date 1/10/2005 – 31/05/2008
Degree **M.Sc. in Chemistry (Scientific area)**
Area Inorganic Chemistry (Therapy and diagnostic application)
Analytical Chemistry; analysis of atmospheric pollutants; Ionic Chromatography and Gas Chromatography coupled with Mass spectrometry; effect of pollutants in human health.
Thesis "Exposição Atmosférica" (Atmospheric exposure)
Classification Good with distinction
Institution Faculdade de Ciências of Universidade de Lisboa, Lisbon, Portugal

Dates **1/10/2001 – 8/07/2005**
Degree **Degree in Chemistry (Scientific area)**
Classification 15 (0-20)
Institution Faculdade de Ciências of Universidade de Lisboa

Courses

Date **1/09/2007 – 30/11/2007**
Course Course organized under the Environmental Chemistry course, given by Professor Doutor Joachim Krueger of Trier University, German
Area " International Chemical and Environmental Risk Assessment Management "
Classification Approved
Institution Faculdade de Ciências of Universidade de Lisboa

Dates **04/2008**
Course International Management Course of Chemical and Environmental Risk by Professor Joaquim Krueger da Universitat Trier (Alemanha)
Area Environmental Chemistry, Environmental management system
Institution Faculdade de Ciências of Universidade de Lisboa.

Scientific/Research Activity

Thesis **Evaluation of energy consumption and CO₂ emissions of alternative pathway for biohydrogen production.**
PhD Thesis in Environmental Engineering, Instituto Superior Técnico, 2013

	<p>Atmospheric exposure. Master Degree (MSc) thesis in Inorganic and Biomedical chemistry, Faculdade de Ciências of Universidade de Lisboa, 2008</p> <p>Analysis of urban aerosol Degree thesis in Chemistry (Scientific area), Faculdade de Ciências of Universidade de Lisboa, 2005.</p>
Projects participation	<p>Strategic and public interest project promoted by Associated Laboratories and Units of I&D – 2011- OE (LAETA, PEst-OE/EME/LA0022/2011).</p> <p>Nemesis 2+ - Study of penetration modeling of hydrogen in mobility, in the framework of ENE 2020/30/50. This study includes the action plan approved by the Compete, under the SIAC nº 17088 project.</p> <p>ESIBITS-Evaluation of the Sustainability of Industrial Biohydrogen production by microalgae, and Integration taxi/bus Transport Systems” (EXPL/EMS-ENE/1078/2012).</p> <p>“Microalgae as a sustainable raw material for biofuels production (biodiesel, bioethanol, bio-H2 and biogas” project, LNEG, PTDC/AAC-AMB/100354/2008.</p> <p>“Power demand estimation and power system impacts resulting of fleet penetration of electric/plug-in vehicles “project, FCT MIT-Pt/SES-GI/0008/2008.</p> <p>TV Energy Project, IDMEC, Instituto Superior Técnico.</p> <p>PAHLIS Project “Contamination of Atmosphere Urban Lisbon for Polycyclic Aromatic Hydrocarbons ” (PAHLIS), funding by Fundação para a Ciência e Tecnologia, PTDC/AMB/65699/2006 - 2008.</p> <p>UMAQ Project “Analysis of urban aerosol samples and marine”, POCI/CTE-ATM/60036/2004 – (2006-2007).</p> <p>HANDS-ON APPROACH TO ANALYTICAL CHEMISTRY- Leonardo da Vinci Program-SI/03/B/F/PP-176012 (2005).</p> <p>AMABAS - Atmospheric Marine Aerosols; Biochemical and Anthropogenic Sources-FCT/MCT-36269/99 (2004 - 2005)</p>
Cost action participation (member)	<p>COST Action ES1408 (2015-2019) EUROPEAN NETWORK FOR ALGAL-BIOPRODUCTS (EUALGAE)</p> <p>- WGs meeting in Madrid, 3rd February 2016.</p>
Awards	<p>3rd Place: Ana Ferreira, IDMEC/IST Institute of Mechanical Engineering, Portugal, “<i>Energy consumption and CO2 emissions analysis of alternative hydrogen fuel production pathways</i>”. YEAR 2012 – The Young European Arena of Research during the Transportation Research Arena (TRA2012), Athens, Greece, 22 and 23 of April 2012 – one of 30 selected from 340 proposals - http://year2012.traconference.eu/recent-news.html</p>
Publications in book chapters	<p>1. Ana F. Ferreira. Chapter I: Biorefinery concept. Biorefineries: targeting energy, high value products and waste valorization. Springer (in progress)</p> <p>2. Carla M. Silva, Rui C. Pacheco, Teresa M. Baptista, Ana F. Ferreira and João P. Ribau. Roadmap to decarbonization and energy consumption minimization of the road transport sector: Biohydrogen production from several microalgae species and integration in optimized bus configurations. Chapter in Volume 9, Compendium on Energy Science and Technology - Publishers, Studium Press LLC, USA.</p>
Book edition	<p>1. Miriam Rabaçal, Ana Ferreira, Carla Silva and Mário Costa. Biorefineries: targeting energy, high value products and waste valorization. Springer (in progress)</p>

1. Ana F Ferreira, Ana P Soares Dias. Bio-oil and bio-char characterization from catalysed pyrolysis of microalgal biomass. *Fuel* (submitted)
2. Luísa Gouveia, Sofia Graça; Catarina Sousa; Lucas Ambrosano; Belina Ribeiro; Elberis P. Botrel; Pedro Castro Neto; **Ana F. Ferreira**, Carla M. Silva. Microalgae biomass production using wastewater: treatment and costs. Scale-up considerations. *Algal Research*, 2016; 16, 167-176. (Impact factor 5.014)
Doi:10.1016/j.algal.2016.03.010.
3. Carla Silva, **Ana Ferreira**, Ana Paula Dias, Mário Costa. A comparison between microalgae virtual biorefinery arrangements for bio-oil production based on lab-scale results. *Journal of Cleaner Production*, 2016. (Impact factor 3.844)
doi:10.1016/j.jclepro.2015.09.053
4. **Ana Ferreira**, Ana Paula Dias, Carla Silva, Mário Costa. Effect of Low Frequency Ultrasounds on Microalgae Solvent Extraction: Analysis of products, energy consumption and emissions. *Algal Research*, 2016; 14, 9-16. (Impact factor 5.014)
Doi:10.1016/j.algal.2015.12.015
5. **Ana Ferreira**, Ana Paula Dias, Carla Silva, Mário Costa. Evaluation of thermochemical properties of raw and extracted microalgae. *Energy*, 2015; 92 (3), 365–372. (Impact factor 4.844)
Doi:10.1016/j.energy.2015.04.078
6. L. Alves, S. M. Paixão, R. Pacheco, **Ana. F. Ferreira** and C. Silva. Bidesulphurization of fossil fuels: Energy, emissions and cost analysis. *RSC Advances*, 2015, 5, 34047–34057. (Impact factor 3.84)
DOI: 10.1039/C4RA14216K
7. Pacheco R., **Ferreira A.F.**, Pinto T., Nobre B.P., Loureiro D., Moura P., Gouveia L. and Silva C.M. The production of pigments & hydrogen through a *Spirogyra* sp. biorefinery. *Energy Conversions and Management* 2015; 89; 789-797. (Impact factor 4.380)
Doi:10.1016/j.enconman.2014.10.040
8. Carla M. Silva, **Ana F. Ferreira**, João Paulo C. Bento. Impact of hydrogen in the road transport sector for Portugal 2010-2050. *Renewable Energy Research Conference, RERC 2014, Energy Procedia* 2014; 58; 207–214.
Doi:10.1016/j.egypro.2014.10.430
9. Ribau J. and **Ferreira A.** Life cycle analysis and environmental effect of electric vehicles market evolution in Portugal. *International Journal of Energy and Environment*, 2014; Volume 5, Issue 5; 535-558.
ISSN 2076-2909 (online)
10. **Ferreira A.F.**, Ortigueira J., Alves L., Gouveia L., Moura P., Silva C.M. Biohydrogen production from microalgal biomass: energy requirement, CO₂ emissions and scale-up scenarios. *Bioresource Technology* 2013; 144; 156–164. (Impact factor 4.494)
DOI:10.1016/j.biortech.2013.06.079
11. **Ferreira A.F.**, Ribeiro L.; Batista A.P., Marques P.A.S.S., Nobre B.P., Palavra, A.M.F., Silva P.P., Gouveia L., Silva C.M. A Biorefinery from *Nannochloropsis* sp. microalga – Energy and CO₂ emission and economic analyses. *Bioresource Technology* 2013; 138:235-244. (Impact factor 4.494)
DOI:10.1016/j.biortech.2013.03.168
12. **Ferreira A.F.**, Ortigueira J., Alves L., Gouveia L., Moura P., Silva C.M. Energy requirement and CO₂ emissions of BioH₂ production from microalgal biomass. *Biomass and Bioenergy* 2013; 49: 249-259. (Impact factor 3.394)
DOI:10.1016/j.biombioe.2012.12.033
13. **Ferreira A.F.**, Marques A.C, Batista A.P, Marques P.A.S.S., Gouveia L., Silva C.M. Biological hydrogen production by *Anabaena* sp. – yield, energy and CO₂ analysis including

fermentative biomass recovery. International Journal of Hydrogen Energy 2012; 37(1): 179-90. (Impact factor 3.313)

DOI: 10.1016/j.ijhydene.2011.09.056

14. **Ferreira A.F.**, Ribau J.P., Silva C.M. Energy consumption and CO2 emissions of potato peel and sugarcane biohydrogen production pathways, applied to Portuguese road transportation. International Journal of Hydrogen Energy 2011; 36: 13547-58. (Impact factor 3.313)

DOI: 10.1016/j.ijhydene.2011.08.008

**Project Report
(subcontracted)**

Carla M. Silva, **Ana Filipa Ferreira** and João Bento. Environmental and Economic Impact Assessment of Hydrogen Scenarios in the Portuguese Road Transportation Sector (2010-2050). Report to AP2H2 association, June 2014.

Carla M. Silva, João Ribau, **Ana Filipa Ferreira** and Teresa Batista. Issues on hydrogen vehicles modelling. Report to AP2H2 association, October 2014.

Scientific Advisory board member

Conference on Sustainable Development of Energy, Water and Environment Systems (2015-)

**Communications in scientific
conferences and meetings**

Oral Communications

1. **Ana F. Ferreira**. Efficient and Flexible Use of Biomass. 3 EJIL - LAETA Young Researchers Meeting ADAI, Coimbra, 7-8 May 2015.

2. Carla Silva, Ana Filipa Ferreira, João Ribau, Miguel Angulo-Escalante, Alfredo Estrada-Angulo, Jorge Milán-Carrillo and Contreras-Andrade Ignacio. Non-toxic jatropha curcas biorefinery evaluation: sinaloa Case study. Energy for Sustainability 2015 - Sustainable Cities: Designing for People and the Planet, Coimbra, Portugal, 14-15 May, 2015

3. Joana Ortigueira, **Ana F. Ferreira**, Carla Silva, Luísa Gouveia and Patrícia Moura. Energy requirements for the continuous biohydrogen production from Spirogyra biomass in a sequential batch reactor. 2nd Discussion Forum on Industrial Ecology and Life-cycle management, Coimbra, 5-6 March, 2015.

4. **Ana Ferreira**, Ana Paula Dias, Carla Silva, Mário Costa. Evaluation Of Thermochemical Properties Of Microalgae Biomass: Fresh And After Oil Extraction. 9th Conference on Sustainable Development of Energy, Water and Environment Systems, Venice-Istanbul, 20-27 September, 2014.

5. **Ana Ferreira**, Ana Paula Dias, Carla Silva, Mário Costa. Bio-oil, biochar and biogas characterization from microalgal biomass. MEFTE 2014, V Conferência Nacional de Mecânica dos fluidos, Termodinâmica e Energia, Porto, Portugal, 11-12 September, 2014.

6. João Bento, **Ana F. Ferreira**, Carla Silva. Assessment of the Economic Impact of Hydrogen Vehicle Penetration into the Portuguese Passenger Car Transport Sector. RERC 2014, Renewable Energy Research Conference, Centre for Renewable Energy, Oslo, Norway, 16-18 June, 2014.

7. Carla M. Silva, **Ana F. Ferreira** and João F. Ribau. Evaluation of the Sustainability of Industrial Biohydrogen Production by Microalgae, and Integration in Taxi/Bus Transport Systems. Energy for Sustainability 2013 - Sustainable Cities: Designing for People and the Planet, Coimbra, Portugal, 8 to 10 September 2013.

8. **Ana F. Ferreira**, Carla M. Silva. Evaluation of the Sustainability of Biohydrogen Production by Microalgae. 21^o Biomass European Conference, Copenhagen, Dinamarca, 3 to 7 of June of 2013.

9. **Ana F. Ferreira**, Patrícia Moura, Carla M. Silva. Evaluation of energy consumption and CO2 emissions in the production of biohydrogen from microalgae feedstock. 1^o international congress of bioenergy, Portalegre, Portugal, 23 to 24 of May of 2013.

10. **Ana F. Ferreira**, Joana Ortigueira, L. Alves, Luísa Gouveia, Patrícia Moura, Carla M. Silva

Communications in scientific conferences and meetings

– “Energetic and environmental evaluation of microalgae biomass fermentation for biohydrogen production”. 4^o International Seminar on the Hydrogen Economy: Advances in Hydrogen Energy Technologies, Viana do Castelo, Portugal, 10 to 11 of November 2011.

11. **Ana F. Ferreira**, João P. Ribau, Carla M. Silva – “ Life cycle analysis of biohydrogen production – application on transport system at Portugal”. 8^o Encontro do Grupo de Estudos em Transportes, GET, Esmoriz, Portugal, 6 to 7 of January of 2011.

12. **Ana Ferreira**, Patrícia Baptista, Carla Silva – “ Bio-hydrogen pathways for the Portuguese road transportation sector”, FISITA 2010 - World Automotive Congress, Budapeste, Hungria, 30 of May to 4 of June of 2010;

13. **Ana Filipa Ferreira**, Cristina Oliveira, Liliana Quintão, M. Filomena Camões. “Analysis of atmospheric gaseous species in an area of Lisbon”, Analítica05, Coimbra, 27 to 28 of October of 2005.

Poster

1. Nuno Barbas, **Ana F. Ferreira**, Mário Costa. Particle fragmentation during the last stages of pulverized coal combustion in a drop tube furnace. 7th European Combustion Meeting, Budapest, Hungary, 30 March – 2 April, 2015

2. **Ana Ferreira**, Ana Paula Dias, Carla Silva, Mário Costa. Life Cycle Assessment of microalgae biomass bio-oil. 9th Conference on Sustainable Development of Energy, Water and Environment Systems, Venice-Istanbul, September 20-27, 2014.

3. **Ana Ferreira**, Ana Paula Dias, Carla Silva, Mário Costa. Ultrasound assisted solvent extraction of microalgal contents. 4th International Conference on Algal Biomass, Biofuels and Bioproducts, Santa Fe Conventional Centre, New Mexico, USA, 15-18 June, 2014.

4. Gonçalo M. Marques, Sébastien Lefévre, Rui Pacheco, Tânia Sousa, **Ana F. Ferreira**, Luísa Gouveia and Carla Silva. A dynamic energy budget model to predict maximum biomass growth and sugar yields for *spirogyra* sp. 4th International Conference on Algal Biomass, Biofuels and Bioproducts, Santa Fe Conventional Centre, New Mexico, USA, 15-18 June, 2014.

5. **Ana F. Ferreira**, Patrícia Moura, Luísa Gouveia, Carla Silva. Cyanobacteria and microalgae biohydrogen production - Life Cycle Inventory approach and process improvements. WHEC2012 – 19th World Hydrogen Energy Conference, Toronto, Canada, 3 to 7 of June 2012;

6. **Ana F. Ferreira** – “Energy consumption and CO2 emissions analysis of alternative hydrogen fuel production pathways”. YEAR 2012 – The Young European Arena of Research during the Transportation Research Arena (TRA2012), Athens, Greece, 22 and 23 of April 2012 - one of 30 selected from 337 proposals;

7. **Ana F. Ferreira**, João P. Ribau, Carla M. Silva – “Biohydrogen pathways for the Portuguese road transportation sector – Uncertainty in the LCA analysis”. IAMF 2011 – International Advanced Mobility Forum during the Genève International Motor Show, Genève, Switzerland, 8 of 9 of March of 2011;

8. João P. Ribau, **Ana F. Ferreira**, Carla M. Silva – “Hybrid vehicle alternative fuel converter, energy strategy optimization and application to a fuel cell Plug-In Hybrid Vehicle”. IAMF 2011 – International Advanced Mobility Forum during the Genève International Motor Show, Genève, Switzerland, 8 of 9 of March of 2011;

9. **Ana Ferreira**, Patrícia Baptista, Carla Silva – “Analysis of energy consumption and CO2 emissions of the life cycle of bio-hydrogen applied to the portuguese road transportation sector”, WHEC2010 – 18th World Hydrogen Energy Conference, Essen, German, 16 to 21 of May of 2010;

10. Hugo F. Silva, Manuel J. Matos, Cristina Oliveira, **Ana F. Ferreira**, João C. Oliveira, Paula Cantinho, Marta Calado, César Oliveira, Natércia Martins, Casimiro Pio, M. Filomena Camões,

	<p>"Effect of climate on PM concentration and size distribution in two sites in the city of Lisbon", Encontro de Jovens Químicos Portugueses, Aveiro, 21 to 23 of April of 2010;</p> <p>11. Ana Filipa Ferreira, Paulo Portela, Cristina Oliveira, Liliana Quintão, M. Filomena Camões - "Variation of ion chloride concentration an urban atmosphere", Lisbon, European aerosols conference, Salzbur, Autriche, 9 to 14 of September of 2007;</p> <p>12. Ana F. Ferreira, Paulo Portela, Cristina Oliveira, Liliana Quintão, M. Filomena Camões. "Urban aerosol analysis in different seasons", Encontro de Analítica 07, Instituto Superior Técnico, Lisbon, March of 2007;</p> <p>13. Liliana Quintão, Ana F. Ferreira, Cristina Oliveira, M^a Filomena Camões. "Marine influence in an urban atmosphere ", 1st Lusofona Conference on Earth System, Lisbon, 22-24 of March of 2006;</p> <p>14. Ana Filipa Ferreira, Nuno Neng Cristina Oliveira, M. Filomena Camões, M. J. Nogueira. " Identification of volatile organic compounds levels in an urban area of Lisbon", 1st Chromatography Meeting, Évora, Portugal, 12-14 of December of 2005;</p> <p>15. Ana Filipa Ferreira, Cristina Oliveira, Liliana Quintão e M^a Filomena Camões. "Urban aerosol analysis in the Lisbon area", 1^a CIAQA, Niterói, Brazil, September 2005.</p>
Communications in scientific conferences and meetings	<p>Oral and Poster communication</p> <p>1. Ana Filipa Ferreira, Cristina Oliveira, Liliana Quintão, M. Filomena Camões. "Study of the Atmospheric Composition of an Urban Area of Lisbon", 1st European Congress of Chemical, Budapest, 27-31 August of 2006.</p>
Chairman in Conferences/meetings	<p>3 EJIL - LAETA Young Researchers Meeting, Forest fires and Biomechanics session, ADAI, Coimbra, 7-8 May 2015.</p> <p>Clean air 2015, Energy system and Policy session, Lisbon 5-9 July, IST Congress Centre, Lisbon, Portugal</p>
Conference Participations	<p>SPEIC14 Towards Sustainable Combustion, 18-20 November 2014, Instituto Superior Técnico, Lisbon, Portugal</p> <p>Bioenergia Portugal 2015, 28 e 29 May 2015, Portalegre, Portugal.</p> <p>Clean air 2015, Lisbon 5-9 July, IST Congress Centre, Lisbon, Portugal</p>
Thesis supervision	<p>2014-2015 – Master thesis in Energy and Management Engineering under the program 'MSc Programme Clean Coal Technologies', Instituto Superior Técnico of Universidade de Lisboa (Lisboa, Portugal), AGH University of Science and Technology (Kraków, Polónia) e SUT Silesian University of Technology (Gliwice, Polónia)</p> <p>"Analysis of thermal conversion of non-homogeneous solid recovered fuels", Michał Kuna – final classification 16</p>
Thesis (co-)supervision	<p>2015 - Master thesis in Energy and Management Engineering, Instituto Superior Técnico: "Multi-criteria analysis of a biorefinery", Joana Rosa.</p> <p>2009-2010 – Master thesis in Environmental Engeneering, Instituto Superior Técnico: "Analysis of energy consumption and CO2 emissions of the life cycle of biohydrogen", Cristina Falcão - final classification 16;</p>
Jury of Master thesis	<p>Bernardo de Mascarenhas Santos Passos de Sousa. Study of Partially Premixed Burners. Thesis to obtain the Masters of Science Degree in Mechanical Engineering. 30 June 2014.</p>
Review of scientific papers	<p>Revision of ten scientific articles covering analysis, optimization and simulation of alternative vehicles, namely:</p> <p>Applied Energy; International Journal of Hydrogen Energy; Journal of Advanced Transportation; Journal of Biotechnology; International Journal of Molecular Science and</p>

	BioResources;
Seminars / workshops	<p>Advanced Training Seminar on the topic Air Quality Modelling, ULHT, Campo Grande (Lisboa), 20 May, 2013</p> <p>Session Meeting Point - Management of environmental and social impacts along the product and materials Life Cycle, Dr. Paulo Partidário, LNEG, Lisbon, 27 of September 2012.</p> <p>Lisboa e-nova session - The Gap Between Realistic Expectations and our Transportation GHG Emissions Targets, John Heywood do MIT, CIUL - Centro de Informação Urbana de Lisboa, Picoas Plaza, Lisbon, 30 of September 2011.</p> <p>Seminar - Sustainable and competitive cities , AESE, Lisbon, 29 of October of 2010.</p> <p>Workshop - The Biomass Biorefineries for Biofuels: Sustainability and Socio-Economic Importance, LNEG, Alfragide, 29 of September of 2010.</p> <p>Lisboa E-nova Conference - Sustainable mobility in the city, Auditorium II of meeting center of FIL, Lisbon, 3 of February 2010.</p> <p>Workshop - Energy Sources diversification for vehicles, Lisboa E-Nova and Iveco, Centro de Informação Urbana de Lisboa, 26 of november 2009.</p> <p>Information session of Knowledge Enhancement , OTIC/UTL, reitoria da Universidade Técnica, 25 of November of 2009.</p> <p>9th Annual Conference of BCSD Portugal 2009. Alterações Climáticas HOJE E AMANHÃ. Centro Cultural de Belém, Lisbon, 17 of June of 2009.</p> <p>Conference - O Futuro Energético em Portugal, Electricity museum, Lisbon, 21 of April of 2009.</p> <p>2nd session of “O Transporte de Passageiros no Futuro sobre Formas de Energia”, Lisbon, Auditorium of Ordem do Engenheiros, 18 of March of 2009.</p> <p>Sessão Depois das 7 Lisbon e-nova - Energy Diversification: charging points for electric vehicles, EDP Innovation, Lisbon, March 24, 2009</p> <p>Session Meeting Point on the topic of indoor air quality in buildings, Engineering Ana Roque de Oliveira, Lisbon, February 19, 2009</p> <p>New Materials for Electrochemical Biosensors, Christopher M. A. Brett, FCUL, 2005 Portugal</p> <p>Chemical industry. The base element in expectations of a stimulant and Motivator New Century, Eng. Paulo Conde, Solvay, FCUL, 2004 Portugal</p> <p>A member of the Portuguese Hydrogen Association, AP2H2 since 2009</p>
	Others
	<p>Integrated Member of LAETA - Associated Laboratory for Energy, Transports and Aeronautics (http://www.idmec.ist.utl.pt/laeta/) in 2014 as a post-doctoral researcher.</p> <p>Partner and member of the board of directors of Hydrogen Promotion Association, AP2H2 since 2015.</p>
PERSONAL SKILLS	
LINGUISTIC SKILLS	
First Language	Português
Other languages	English B2.1 (Oxford School) Spanish, French (medium) Sign language (basic)
SKILLS IN IT TOOLS	<p>Knowledge of computer:</p> <p>Good knowledge of MS Office (Word, Excel and Power Point)</p>

Knowledge Average Operating System: MS Windows 2000 / XP and Windows 7
Internet Medium Knowledge
Knowledge of Adobe Acrobat and Adobe Photoshop
Knowledge of ISIS Draw and ChemOffice

Programming language:
Basic level of Fortran 90

Experience chromatographic techniques (HPLC, GC, IC) and Infrared spectroscopic techniques (FTIR).

Training in job (Hovione, May-July 2007)

- . Welcome the new employees
- . Safety (initial training)
- . Trainstream - Trainees
- . Chromatography HPLC-liquidation Waters UV detector
- . System in chromatography data acquisition. Ex: Millennium (Waters)
- . Health, Prevention and Protection at Work (initial training)
- . Environment (initial training)
- . Quality Mission
- . Training Utilities and Energy
- . LIMS - Profile QC_Analyst
- . Fire - Part I
- . DocStream - Review, approve and carry documents
- . Communication Tools
- . Security Management System, Health and Environment - General Concepts

SCIENTIFIC EXPERTISE AND RESEARCH INTERESTS

Mechanical engineering, Energy sector. Analytical chemistry; Sustainability. Research in the areas of new forms of production and energy conversion. Life cycle analysis (energy and pollutant emissions) applied to energy systems, more precisely the production of biofuels. Biorefineries. Biomass and conversion technologies (combustion, pyrolysis, gasification, fermentation ...). Thermogravimetric analysis. Chemical kinetics.

SKILLS AND ORGANIZATIONAL SKILLS

Volunteer

Dates	2007 - 2015
Role	Judge of the scientific project task
Organization	FIRST LEGO League (FLL) http://evoluir21.org/ http://www.firstlegoleague.org/
Cause	Science and technology
Description	FIRST® LEGO® League (FLL) http://www.firstlegoleague.org/ - Judge of the scientific project task FIRST LEGO League teams get to: -Research challenges facing today's scientists -Design, build, test and program robots using LEGO® MINDSTORMS® technology -Apply real-world math and science concepts -Learn critical thinking, team-building, and presentation skills -Participate in tournaments and celebrations -Understand and practice Gracious Professionalism®
Datas	27 of April to 3 of May, 2009
Nome do Evento	An adventure in LEGO- World LEGO exhibition organized by the Association PLUG http://www.plug.pt/

Principais actividades e responsabilidades Local	Volunteer Lourinhã, Portugal
ARTISTIC SKILLS AND SOCIAL	<p> Flamenco dancer in Hijas del Flamenco group from January to December 2009 Flamenco dancer in Flamenco LUNAR group (2005 - 2007) Flamenco dancer in Falmenco SOLEARES group (1996 - 2007) Flamenco teacher </p> <p> Practitioner since October 2005 and Professor (2006-2012) of Argentine tango. Participation in several Nationals and Internationals Tango Festivals. </p> <p> Practitioner WADO-Ryu Karate since September 2007 to September 2008 - Undergraduate: 8th Kyu. Practitioner of Battōjutsu (Japanese sword) from September 2007 to September 2008 </p> <p> Autonomous and recreational diving course - Open Water Diver Course of Padi since August 2012. Ocean Diving Centre, Figueira da Foz. </p>