

Curriculum Vitae

Cátia Isabel Canavezes Esteves

Personal Information

Address:	Others:
Rua de Ovar, nº 9, 3º direito 3810 – 145 Aveiro Contact: 964452631 E-Mail: catiaiesteves@ua.pt	Date of Birth: December 20 th 1983 Nationality: Portuguese Driving License: P-1311831 6

Academic Qualifications

2011	University of Minho
2016	PhD in Science, specialization in Chemistry
2008	University of Minho
2009	Master in Characterization and Chemical Analysis
2001	Faculty of Sciences, University of Porto
2006	Chemistry Degree (Scientific)
1995	Mirandela High School
2001	7 th – 12 th grade
1993	Luciano Cordeiro Middle School, Mirandela
1995	5 th – 6 th grade
1989	Elementary School of Frechas
1993	1 st – 4 th grade

PhD in Science, specialization in Chemistry. Thesis title: Recognition of biomedically relevant ions: design, synthesis and evaluation of novel heterocycle-based unnatural amino acids and short peptides as fluorimetric chemosensors”.

MSc in *Técnicas de Caracterização e Análise Química*. Thesis title: “Síntese e avaliação de análogos heterocíclicos da asparagina como sensores químicos de catiões com importância biológica, ambiental e analítica”.

Chemistry Degree (*Scientific*). Thesis title: “Estudo espectrofotométrico do efeito do galhato de metilo na estabilidade da molécula de ADN”.

Additional Training

Initial Training Course for Trainers

Nanotechnology and Nanomedicine Course, 17-21 October 2011, International Iberian Nanotechnology Laboratory, Braga.

Technical Skills

UV-Vis spectroscopy
Fluorescence spectroscopy
Nuclear Magnetic Resonance (NMR)
Mass spectrometry (ESI)
Fourier Transform Infrared Spectrometry (FTIR)

Computer Skills

Microsoft Office products
ChemDraw Ultra 8.0
OriginLab Graphing and Analysis
Mestre Nova
HypSpec software

Professional experience

Postdoctoral fellowship in the Project NETDIAMOND, POCI-01-0145-FEDER-016385, New targets in diastolic heart failure: from comorbidities to personalized medicine. *Synthesis of new Glycosylated phenolic compounds with potential anti-inflammatory action*. (since February 2017) University of Aveiro.

Fellowship in the Project SFRH/B1/51098/2010 “Natural Products and related Redox Catalysts: Basic Research and Applications in Medicine and Agriculture” (ITN – 215 009) (co-financing of FCT to Marie Curie actions) *New polyphenolic compounds with potential antioxidant and anti-inflammatory activity*. (July 2010 - June 2011) University of Aveiro.

Fellowship in the Project PTDC/QUI/66250/2006, Development of new heterocyclic compounds as luminescent and colorimetric chemosensors: metallic anion and cation detection. (Dezembro de 2008 a Dezembro de 2009) University of Minho.

Worked at Urban Services Division at the Municipality of Mirandela in the maintenance of the municipality's 43 ETARs [Wastewater treatment plants], in the classification of the fluvial beaches, in the coordination of the removal of end-of life vehicles process [VfV] and of the Municipality's Urban Cleaning (February 2008 – September 2008).

Professional internship on Chemistry – Scientific Branch at the Municipality of Mirandela, working at the Environmental and Urban Services Division (ETARs, Sanitation, Residues, Environmental Awareness) – (November 2006 – September 2007).

- Organization of seminars within the environmental field concerning the publications “Ecoguia 2007” and Ecoguia 2008” and of the project Nordeste 21.

- Development of activities within the environmental scope and included in the publications “Ecoguia 2007” and Ecoguia 2008” of the Municipality of Mirandela.

Publications

Esteves C. I. C., Ferreira R. C. M, Raposo M. M. M., Costa S. P. G., “New fluoroionophores for metal cations based on benzo[d]oxazol-5-yl-alanine bearing pyrrole and imidazole”, *Dyes Pigments*, **2018**, *151*, 211-218.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Non-canonical amino acids bearing thiophene and bithiophene: synthesis by an Ugi multicomponent reaction and studies on ion recognition ability”, *Amino Acids*, **2017**, *49*, 921-930.

Esteves C. I. C., Batista R. M. F, Raposo M. M. M., Costa S. P. G., “Novel functionalised imidazobenzocrown ethers bearing a thiophene spacer as fluorimetric chemosensors for metal ion detection”, *Dyes Pigments*, **2016**, *135*, 134-142.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “New 2,4,5-triarylimidazoles based on a phenylalanine core: synthesis, photophysical characterization and evaluation as fluorimetric chemosensors for ion recognition”, *Dyes Pigments*, **2016**, *134*, 258-268.

Esteves C. I. C., Santos C. M. M., Brito C. M., Silva, A. M. S., Cavaleiro J. A. S., ”Synthesis of novel 1-aryl-9H-xanthen-9-ones”, *Synlett*, **2011**, *10*, 1403-1406.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Novel highly emissive non proteinogenic amino acids: synthesis of 1,3,4-thiadiazolyl asparagines and evaluation as fluorimetric chemosensors for biologically relevant transition metal cations”, *Amino Acids*, **2011**, *40*, 1065-1075.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Synthesis and evaluation of benzothiazolyl and benzimidazolyl asparagines as amino acid based selective fluorimetric chemosensors for Cu²⁺”, *Tetrahedron*, **2010**, *66*, 7479-7486.

Esteves C. I. C., Silva A. M. F., Raposo M. M. M., Costa S. P. G., “Unnatural benz-X-azolyl asparagine derivatives as novel fluorescent amino acids: synthesis and photophysical characterization”, *Tetrahedron*, **2009**, *65*, 9373-9377.

Esteves C., Branco A., Janela N., Claro F., Pinto L., Pinto S., “*Ecoguia 2007*”, part of the environmental plan of the Municipality of Mirandela (circulation: 2000 copies), D. L.: 256424/07, February 2007.

Experiences in book chapters

Costa, S. P. G.; Raposo, M. M. M.; **Esteves, C. I. C.**; Ferreira, R. C. M. in *Comprehensive Organic Chemistry Experiments for the Laboratory Classroom (COCELC)*, “Synthesis of *N*-tertbutyloxycarbonyl-3-nitro-l-tyrosine methyl ester”, Afonso, C. A. M.; Franzén, R.; Tan, B.; Candeias, N. R.; Simão, D.; Trindade, A.; Coelho, J. (Eds); Royal Society of Chemistry **2016**, Cap. 45, Experiment 3.1.14, p 198-201 (ISBN 978-18-49739-63-4).

Costa, S. P. G.; Raposo, M. M. M.; **Esteves, C. I. C.**; Ferreira, R. C. M. in *Comprehensive Organic Chemistry Experiments for the Laboratory Classroom (COCELC)*, “Synthesis of *N*-tertbutyloxycarbonyl-[2-(thien-2'-yl)benzoxazol-5-yl]-l-alanine methyl ester”, Afonso, C. A. M.; Franzén, R.; Tan, B.; Candeias, N. R.; Simão, D.; Trindade, A.; Coelho, J. (Eds); Royal Society of Chemistry **2016**, Cap. 185, Experiment 12.2.2, p 836-839 (ISBN 978-18-49739-63-4).

Costa, S. P. G.; Raposo, M. M. M.; **Esteves, C. I. C.** in *Comprehensive Organic Chemistry Experiments for the Laboratory Classroom (COCELC)*, “A Ugi multicomponent reaction in the synthesis of *N*-cyclohexyl-2-(*N*-(4-methoxybenzyl)acetamido)-2-(thien-2'-yl)acetamide”, Afonso, C. A. M.; Franzén, R.; Tan, B.; Candeias, N. R.; Simão, D.; Trindade, A.; Coelho, J. (Eds); Royal Society of Chemistry **2016**, Cap. 111, Experiment, 4.2.5.3. p 493-496 (ISBN 978-18-49739-63-4).

Communications in Scientific Conferences

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Interaction studies of benzimidazoles functionalized with arylthiophene and arylfuran moieties for cation recognition” panel communication, IV Encontro em Técnicas de Caracterização e Análise Química, Braga, University of Minho, June 17th 2016.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Recognition of transition metals by benzimidazoles with an optical response” In *Proceedings of the 19th Int. Electron. Conf. Synth. Org. Chem.*, 1–30 November 2015; Sciforum Electronic Conference Series, Vol. 19, 2015, d003; doi:10.3390/ecsoc-19-d003.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Imidazo-benzocrown ether functionalised amino acids: synthesis and fluorimetric chemosensing studies with metal cations” comunicação em painel, 7th Spanish-Portuguese-Japanese Organic Chemistry Symposium, Seville, 23-26 June 2015.

Esteves C. I. C., Rosa M. E., Raposo M. M. M., Costa S. P. G., “Synthesis and ion recognition studies of novel benzimidazol-5-yl-L-alanines” In *Proceedings of the 18th Int. Electron. Conf. Synth. Org. Chem.*, 1–30 November 2014; Sciforum Electronic Conference Series, Vol. 18, 2014, b002; doi:10.3390/ecsoc-18-b002.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Optical chemosensing of metal cations by modified amino acids bearing a bithienyl heterocyclic moiety” panel communication, III Encontro em Técnicas de Caracterização e Análise Química, Braga, University of Minho, June 6th 2014.

Rosa M. E., **Esteves C. I. C.**, Raposo M. M. M., Costa S. P. G., “Photophysical characterization of fluorescent amino acids based on tryptophan, tyrosine and phenylalanine”, panel communication P30, III Encontro de Caracterização e Análise Química, Braga, University of Minho, June 6th 2014.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Amino acids based on 2,4,5-triarylimidazoles: synthesis and evaluation as new chemosensors for ion recognition” In *Proceedings of the 17th Int. Electron. Conf. Synth. Org. Chem.*, 1–30 November 2013; Sciforum Electronic Conference Series, Vol. 17, 2013, b015; doi:10.3390/ecsoc-17-b015.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Amino acid based hydrazones: synthesis and evaluation as new chemosensors for ion recognition” panel communication P25, 10^o Encontro Nacional de Química Orgânica – 1^o Simpósio Luso-Brasileiro de Química Orgânica, 4-6 September 2013.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Unnatural amino acids based on 2,4,5-triarylimidazoles as fluorescent labels for peptides”, panel communication P32, 1st Symposium on Medicinal Chemistry, Braga, Portugal, May 17th 2013.

Albuquerque H., Santos C. M. M., **Esteves C. I. C.**, Silva A. M. S., Cavaleiro J. A. S., “Synthesis of novel hydroxylated 2-butadienylchromone derivatives”, panel communication P52, 3rd Portuguese Meeting on Medicinal Chemistry, Aveiro, Portugal, 28-30 November 2012.

Rocha D. H. A., **Esteves C. I. C.**, Pinto D. C. G. A., Santos C. M. M., Brito C. M., Silva A. M. S., Cavaleiro J. A. S., “New syntheses of novel arylxanthenes”, oral communication, XXVth European Colloquium on Heterocyclic Chemistry, Reading, UK, 13-17 August 2012.

Rocha D. H. A., **Esteves C. I. C.**, Pinto D. C. G. A., Santos C. M. M., Brito C. M., Silva A. M. S., Cavaleiro J. A. S., “New syntheses of novel arylxanthenes”, panel communication PO-39, XXVth European Colloquium on Heterocyclic Chemistry, Reading, UK, 13-17 August 2012.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Highly emissive non proteinogenic amino acids bearing thienyl moieties: synthesis by a Ugi multicomponent reaction and photophysical characterisation”, panel communication P3.92, 13th Tetrahedron Symposium Challenges in Bioorganic & Organic Medicinal Chemistry, Amsterdam, Netherlands, 26-29 June 2012.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Evaluation of an unnatural amino acid as a fluorimetric chemosensor for anion recognition”, panel communication P14, II Encontro em Técnicas de Caracterização e Análise Química, Braga, Portugal, June 8th 2012.

Ribeiro G.M.A., **Esteves C. I. C.**, Raposo M. M. M., Costa S. P. G., “Synthetic unnatural amino acids as fluorimetric probes for metallic cations”, panel communication P55, 3rd Portuguese Young Chemists Meeting (3PYCheM), Porto, Portugal, 9-11 May 2012.

Seixas R. S. G. R., **Esteves C. I. C.**, Brito C. M., Leal S. B., Pinto D. C. G. A., Santos C. M. M., Seca A. M. L., Silva A. M. S., Cavaleiro J. A. S., “Structure determination of some oxygen and nitrogen heterocyclic compounds by NMR”, panel communication P7, 2nd PTNMR Meeting – NMR in Portugal: an overview, Lisboa, Portugal, February 3rd 2012.

Esteves C. I. C., Santos C. M. M., Brito C. M., Silva A. M. S. and Cavaleiro J. A. S., “Recent developments in the synthesis of 1-aryl-9H-xanthen-9-ones”, panel communication CP-35, XVI Encontro Luso-Galego de Química, Aveiro, Portugal, 10-12 Novembre 2010.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “New non proteinogenic amino acids: synthesis of thiadiazolyl asparagines and evaluation as fluorimetric metal chemosensors”, 2nd Iberian-American Symposium on Organic Chemistry (SIBEAQO-II), Santiago de Compostela, Spain, 8-12 September 2010.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Síntese e avaliação de análogos heteocíclicos da asparagina como sensores químicos de catiões com importância biológica, ambiental e analítica”, panel communication P24, I Encontro em Técnicas de Caracterização e Análise Química, Braga, Portugal, May 7th 2010.

Esteves C. I. C., Raposo M. M. M., Costa S. P. G., “Synthesis and interaction studies of novel heterocyclic asparagines with metal cations”, panel communication P20, 2nd Portuguese Young Chemists Meeting (2PYCheM), Aveiro, Portugal, 21-23 April 2010.

Costa S. P. G., **Esteves C. I. C.**, Raposo M. M. M., “Unnatural benz-x-azolyl asparagine derivatives as novel fluorescent amino acids: synthesis and photophysical characterization”, panel communication A018, 10th Tetrahedron Symposium, Paris, France, 23-26 June 2009.

Signature

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