

Curriculum Vitae

Sérgio Manuel Felipe Vilela

PERSONAL INFORMATION

Place of birth: Mouçós, Vila Real, Portugal

Date of birth: 14 July 1983

Nationality: Portuguese

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Portugal

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ACADEMIC QUALIFICATIONS

- Attending the PhD program in Chemistry by the University of Aveiro, Portugal (since January 2010).
- Master in Laboratory Analysis by the University of Trás-os-Montes and Alto Douro, Portugal, with final average of 17 (out of 20) (December 2009).
- University degree in chemistry by the University of Trás-os-Montes and Alto Douro, Portugal, with final average of 14 (out of 20) (July 2007).

PROFESSIONAL EXPERIENCE

Research fellow in the scope of the project PTDC/QUI/69302/2006 “Inclusão de Polímeros Organometálicos em Ciclodextrinas”, in CICECO – Department of Chemistry of University of Aveiro (Portugal), from 01 October to 31 December 2009 (3 months).

Research fellow – CICECO fellowship for the synthesis and characterization of novel Coordination Polymers with lanthanides, at the University of Aveiro (Portugal), from 01 February to 31 July 2009 (6 months).

Research fellow in the scope of the project PTDC/CTM/67575/2006 “Processamento e Caracterização de Cerâmicas Multiferróicas para Aplicações em Sensores e Actuadores”, at the Department of Chemistry of University of Trás-os-Montes and Alto Douro (Vila Real, Portugal), from 02 May to 02 November 2008 (6 months).

Research fellow in the scope of the project 010.6/A044/2005 “Medida V.5 - Acção C.5.1 – Selecção Clonal em Castanheiro”, in the Department of Chemistry of University of Trás-os-Montes and Alto Douro (Vila Real, Portugal), from 15 January to 31 March 2008.

Collaborator in the development of research works in the scope of the project INTERREG IIIA-“Castanã”, in the Department of Chemistry of University of Trás-os-Montes and Alto Douro (Vila Real, Portugal), from January to June 2006 (6 months).

Monographic Courses

Participation in the International Course on Toxicology “Metabolic Toxicology: From Pathway to Organism” organized by the Center for Neuroscience and Cell Biology of the University of Coimbra (Portugal), 9-11 April 2008.

Participation in the 3rd Electron Microscopy Course, Transmission Electron Microscopy (Preparation of biological samples for TEM analysis), organized by the Electron Microscopy Unity of the University of Trás-os-Montes and Alto Douro (Vila Real, Portugal), 6-7 September 2007.

PARTICIPATION IN SCIENTIFIC CONFERENCES

“II Iberian Symposium on Hydrogen, Fuel Cell and Advanced Batteries – Hyceltec 2009”, held at the University of Trás-os-Montes and Alto Douro (Vila Real, Portugal), 13-17 September 2009.

Symposium “A Ciência e o detective”, organized by the University of Trás-os-Montes and Alto Douro (Vila Real, Portugal), 10 May 2006.

Symposium “A Química que falta descobrir”, organized by the University of Trás-os-Montes and Alto Douro (Chaves, Portugal), 15 March 2006.

Seminar “A Arte de Ensinar Física”, organized by the Physics and Chemistry students of University of Trás-os-Montes and Alto Douro (Vila Real, Portugal), 06 March 2006.

Conference “Biossensores: Modernas Ferramentas para Monitorização e Controlo Analítico”, organized by the Chemistry Center of the University of Trás-os-Montes and Alto Douro (Vila Real, Portugal), 22 February 2006.

SCIENTIFIC PUBLICATIONS

Articles

1. *Are Fentanyl and Remifentanyl safe opioids for rat brain mitochondrial bioenergetics?*
Sérgio M. F. Vilela, Dario J. S. L. Santos, Luís Félix, José M. Almeida, Luís Antunes, Francisco Peixoto.
Mitochondrion, 2009, Volume 9, Pages 247-253
2. *Mitochondrial Toxicity of the Phytochemicals Daphnetoxin and Daphnoretin – Relevance for Possible Anti-Cancer Application*
Cátia V. Diogo, Luís Félix, Sérgio Vilela, Ana Burgueiro, Inês A. Barbosa, Maria J. M. Carvalho, Paulo J. Oliveira, Francisco P. Peixoto
Toxicology in Vitro, 2009, Volume 23, Pages 772-779
3. *Characterization of liver mitochondria from Nile tilapia (Oreochromis niloticus) and mitochondrial bioenergetics alterations caused by exposure to oxyfluorfen herbicide*
F.P. Peixoto, D.L. Santos, S. Vilela, A. Fontainhas-Fernandes
Arquivo Brasileiro de Medicina Veterinaria e Zootecnia, 2009, Volume 61, Issue 2, Pages 386-392
4. *Glycine methyl ester hydrochloride*
Sérgio M. F. Vilela, Filipe A. Almeida Paz, João P. C. Tomé, Verónica de Zea Bermudez, José A. S. Cavaleiro, João Rocha
Acta Crystallographica Section E, 2009, E65, Pages o1970
5. *Methyl 2-(4,6-dichloro-1,3,5-triazin-2-yl-amino)acetate*
Sérgio M. F. Vilela, Filipe A. Almeida Paz, João P. C. Tomé, Verónica de Zea Bermudez, José A. S. Cavaleiro, João Rocha
Acta Crystallographica Section E, 2009, E65, Pages o1985-o1986
6. *Polar properties of $Eu_{0.6}Y_{0.4}MnO_3$ ceramics and their magnetic field dependence*
J. Agostinho Moreira, A. Almeida, W. S. Ferreira, M. R. Chaves, B. Kundys, R. Ranjith, W. Prellier, S. M. F. Vilela, P. B. Tavares
Journal of Physics-Condensed Matter, 2009, Volume 21, Article nr 446002
7. *Effect of the external fields on the polar and dielectric properties of $Eu_{0.8}Y_{0.2}MnO_3$*
J. Agostinho Moreira, A. Almeida, W. S. Ferreira, M. R. Chaves, S. M. F. Vilela, P. B. Tavares, B. Kundys, R. Ranjith, W. Prellier
Journal of Applied Physics, 2010, Volume 107, Article nr 024108
8. *Coupling between phonons and magnetic excitations in orthorhombic $Eu_{1-x}Y_xMnO_3$*
J. Agostinho Moreira, A. Almeida, W. S. Ferreira, M. R. Chaves, J. Kreisel, S. M. F. Vilela, P. B. Tavares
Physical Review B, 2010, Volume 81, Article nr 054447

9. *Polar properties and phase sequence in $\text{Eu}_{0.8}\text{Y}_{0.2}\text{MnO}_3$*
 J. Agostinho Moreira, A. Almeida, W. S. Ferreira, M. R. Chaves, J. P. Araújo, A. M. Pereira, S. M. F. Vilela, P. B. Tavares
 Journal of Physics-Condensed Matter, 2010, Volume 22, Article nr 125901
10. *(R)-(1-Ammonioethyl)phosphonate*
 José A. Fernandes, Filipe A. Almeida Paz, Sérgio M. F. Vilela, João P. C. Tomé, José A. S. Cavaleiro, Paulo J. A. Ribeiro-Claro, João Rocha
 Acta Crystallographica Section E, 2010, E66, Pages o2271-o2272
11. *Strong magnetoelastic coupling in orthorhombic $\text{Eu}_{1-x}\text{Y}_x\text{MnO}_3$ manganite*
 J. Agostinho Moreira, A. Almeida, W. S. Ferreira, J. P. Araújo, A. M. Pereira, M. R. Chaves, M. M. R. Costa, V. A. Khomchenko, J. Kreisel, D. Chernyshov, S. M. F. Vilela, P. B. Tavares
 Physical Review B, 2010, Volume 82, Article nr 094418
12. *Structure and physical properties of $\text{Eu}_{0.8}\text{Y}_{0.2}\text{MnO}_3$ ceramics*
 J. Agostinho Moreira, A. Almeida, W. S. Ferreira, M. R. Chaves, J. B. Oliveira, J. M. Machado da Silva, M. A. Sá, S. M. F. Vilela, P. B. Tavares
 Journal of Electroceramics, 2010, Volume 25, Pages 203-211
13. *(R)-(1-Ammoniopropyl)phosphonate*
 José A. Fernandes, Sérgio M. F. Vilela, Filipe A. Almeida Paz
 Acta Crystallographica Section E, 2010, E66, Pages o2823-o2824
14. *Trimethyl 2,2',2''-[1,3,5-triazine-2,4,6-triyltris(azanediyl)]triacetate*
 Sérgio M. F. Vilela, Filipe A. Almeida Paz, João P. C. Tomé, Verónica de Zea Bermudez, José A. S. Cavaleiro, João Rocha
 Acta Crystallographica Section E, 2010, E66, Pages o3243-o3244
15. *Ferroelectricity in antiferromagnetic phases of $\text{Eu}_{1-x}\text{Y}_x\text{MnO}_3$*
 J. Agostinho Moreira, A. Almeida, W. S. Ferreira, M. R. Chaves, J. B. Oliveira, J. M. Machado da Silva, M. S. Sá, S. M. F. Vilela, P. B. Tavares
 Solid State Communications, 2011, Volume 151, Pages 368-371
16. *1,3,5-Tris(bromomethyl)benzene*
 José A. Fernandes, Sérgio M. F. Vilela, Paulo J. Ribeiro-Claro, Filipe A. Almeida Paz
 Acta Crystallographica Section C, 2011, C67, Pages o198-o200
17. *Ligand design for the design of functional Metal-Organic Frameworks*
 Filipe A. Almeida Paz, Jacek Klinowski, Sérgio M. F. Vilela, João P. C. Tomé, José A. S. Cavaleiro, João Rocha
 Chemical Society Reviews, 2011, DOI: 10.1039/c1cs15055c
18. *Di-ureasil hybrids doped with LiBF_4 : attractive candidates as electrolytes for "smart windows"*
 Paula C. Barbosa, Mariana Fernandes, Sérgio M. F. Vilela, A. Gonçalves, M. C. Oliveira, E. Fortunato, M. Manuela Silva, Michael J. Smith, R. Rego, Verónica de Zea Bermudez

19. *Olive leaf extract as a food supplement negatively affects mouse liver bioenergetics compromising liver functionality*
Francisco P. Peixoto, Dario L. Santos, Sérgio M. F. Vilela, Regina Arantes-Rodrigues, Andreia Henriques, Aura Colaço, Paula A. Oliveira
Submitted to Scientific Research and Essays

Poster Communications

1. XVth National Congress of Biochemistry, 8-10 December 2006 (Aveiro, Portugal)
“Assessment of daphnoretin interaction on the rat liver mitochondrial bioenergetics”
Félix L., Vilela S., Carvalho M.J.M., Almeida J., Peixoto F.
2. ASA annual meeting, 13–17 October 2007 (San Francisco, USA)
“The Analgesic Fentanyl Impair Oxidative Metabolism in rat brain mitochondria”
Francisco P. Peixoto, Sérgio Vilela, Luís L. Félix, José M. Almeida, Luís M. Antunes
3. Summer school of Inorganic Functional Materials, 6-11 July 2008 (S. Pedro do Sul, Portugal)
“La and Mn doping effect on multiferroic BiFeO₃ ceramics”
T. T. Carvalho, P. B. Tavares, S. Vilela, J. Pérez de la Cruz, J. R. A. Fernandes, M. S. Reis
4. 15th European Bioenergetic Conference (EBEC), 19-24 July 2008 (Dublin, Ireland)
“Brain mitochondrial bioenergetics is differentially affected by anesthetics fentanyl and remifentanyl”
Sergio M. Vilela, Dario L. Santos, Luis M. Félix, Luis M. Antunes, L. José M. Almeida, Francisco M. Peixoto
5. European Summer school on multiferroics, 1-5 September 2008 (Girona, Spain)
“La doping effect on multiferroic BiFeO₃ ceramics”
T. T. Carvalho, P. B. Tavares, S. Vilela, J. R. Fernandes, J. Agostinho Moreira, S. Das, M. S. Reis
6. Materiais 2009, 5-8 April 2009 (Lisboa, Portugal)
“Enhanced of magnetic and electric properties of BiFeO₃ ceramic doped with La and Mn”
T. T. Carvalho, P. B. Tavares, S. Vilela, S. Das, M. S. Reis, J. R. A. Fernandes, J. Freire de Andrade, M. Armada Sá, J. Agostinho Moreira
7. International Courses on Toxicology, 5-8 May 2009 (Coimbra, Portugal)
“Mitochondrial toxicity of the phytochemicals daphnetoxin and daphnoretin – Relevance for possible anti-cancer application”
Diogo C.V., Félix L., Vilela S., Burgeiro A., Barbosa I.A., Carvalho M.J., Oliveira P.J., Peixoto F.P

8. 8th National Meeting on Organic Chemistry, 1-3 July 2009 (Aveiro, Portugal)
“Novel multipodal organic linkers for the synthesis of coordination polymers”
 Sérgio M. F. Vilela, João P. C. Tomé, José A. S. Cavaleiro, João Rocha, Filipe A. Almeida Paz

9. European Summer School on multiferroics, 7-11 September 2009 (Groningen, Holanda)
“Magnetic and ferroelectric properties of BiFeO₃ substituted with La and Mn”
 T. T. Carvalho, P. B. Tavares, S. Vilela, S. Das, M. S. Reis, J. R. A. Fernandes, J. Freire de Andrade, M. Armanda Sá, J. Agostinho Moreira

10. Dyproso, 13-17 September 2009 (Antuérpia, Bélgica)
“Effects of the substitution of lanthanum and manganese on BiFeO₃ ceramic”
 T. T. Carvalho, P. B. Tavares, S. Vilela, S. Das, M. S. Reis, J. R. A. Fernandes, J. Freire de Andrade, M. Armanda Sá, J. Agostinho Moreira

11. 8th Inorganic Chemistry Conference, 16-17 October 2009 (Curia, Portugal)
“Photoluminescence Spectroscopy Energy Transfer in Lanthanide-Organic Frameworks”
 Sérgio M. F. Vilela, M. O. Rodrigues, P. Silva, J. P. C. Tomé, J. A. S. Cavaleiro, S. A. Júnior, V. Z. Bermudez, L. D. Carlos, R. A. S. Ferreira, J. Rocha, F. A. A. Paz

12. 44th Annual Scientific Meeting of the European Society for Clinical Investigation, 24-27 February 2010 (Bari, Italy)
“Possible anti-cancer application of the phytochemicals daphnetoxin and daphnoretin – relevance of mitochondrial toxicity”
 C. V. Diogo, L. Félix, S. Vilela, A. Burgeiro, I. A. Barbosa, M. J. Carvalho, P. J. Oliveira, F. P. Peixoto

13. VII CICECO Meeting, 28-29 January 2010 (Aveiro, Portugal)
“Self-assembly of lanthanides-organic frameworks with photoluminescent properties”
 Sérgio M. F. Vilela, Marcelo O. Rodrigues, Patrícia Silva, João P. C. Tomé, José A. S. Cavaleiro, Severino A. Júnior, Verónica de Zea Bermudez, Luís D. Carlos, Rute A. S. Ferreira, João Rocha, Filipe A. Almeida Paz

14. VII CICECO Meeting, 28-29 January 2010 (Aveiro, Portugal)
“Synthesis of 2,4,6-trichloro-1,3,5-triazine derivatives to build coordination polymers”
 Sérgio M. F. Vilela, João P. C. Tomé, José A. S. Cavaleiro, Verónica de Zea Bermudez, João Rocha, Filipe A. Almeida Paz

15. MOLMAT 2010 conference, 5-8 July 2010 (Montpellier, France)
“Functional one-dimensional lanthanide coordination polymers based a novel bipodal organic ligand”
 Sérgio M. F. Vilela, Duarte Ananias, Patrícia Silva, Verónica de Zea Bermudez, Luís D. Carlos, José A. S. Cavaleiro, João Rocha, João P. C. Tomé, Filipe A. Almeida Paz

16. VIII CICECO Meeting, 17-18 March 2011 (Aveiro, Portugal)
“*Synthesis, Characterization and Properties of Functional One-Dimensional Lanthanide Coordination Polymers Constructed from a Novel Organic Ligand*”
S. M. F. Vilela, D. Ananias, P. Silva, J. A. S. Cavaleiro, J. Rocha, L. D. Carlos, V. Z. Bermudez, J. P. C. Tomé, F. A. Almeida Paz

Oral Communications

1. XXXVIII Annual Meeting of the Portuguese Pharmacological Society, XXV Meeting of Clinical Pharmacology, VII Meeting of Toxicology, 5–7 December 2007 (Coimbra, Portugal)
“*Cytotoxicity of Daphnoretin on Mouse K1735-M2 Melanoma Cells – Are Mitochondrial Effects Relevant?*”
Luís Félix, Cátia V. Diogo, Inês A. Barbosa, Ana Burgeiro, Sérgio Vilela, Paulo J. Oliveira, Francisco Peixoto
2. XXXVIII Annual Meeting of the Portuguese Pharmacological Society, XXV Meeting of Clinical Pharmacology, VII Meeting of Toxicology, 5–7 December 2007 (Coimbra, Portugal)
“*Inefficacy of Daphnetoxin as an Effective Anti-Proliferative Agent on a Metastatic Mouse Melanoma Cell Line*”
Cátia V. Diogo, Inês A. Barbosa, Ana Burgeiro, Francisco Peixoto, Sérgio Vilela, Luís Félix, Paulo J. Oliveira
3. I CECVAV Scientific Conference, 5-6 March 2007 (Vila Real, Portugal)
“*A mitocôndria: um alvo importante para os tóxicos*”
Francisco Peixoto, Luís Félix, Sérgio Vilela, José M. Almeida, Carlos Palmeira
4. Institute of Cellular and Molecular Biology, 13 February 2008 (Porto, Portugal)
“*The opioides (fentanyl/remifentanyl) effects on brain mitochondria bioenergetics*”
Sérgio Vilela, Francisco Peixoto, Dario Santos
5. International Courses on Toxicology, 9-11 April 2008 (Coimbra, Portugal)
“*Olive leaf extract is not a claimed miraculous food supplement; on contrary it is very harmful to liver bioenergetics*”
Francisco P. Peixoto, Dario L. Santos, Sérgio Vilela, Regina Arantes-Rodrigues, Andreia Henriques, Aura Colaço, Paulo Rema, Paula A. Oliveira

16 August 2011