

## Applied Geochemistry & Luminescence on Cultural Heritage

### Books and Book Chapters

M.I. Prudêncio, F. Ruiz, M.I. Dias, E. Galán, J.C. Waerenborgh, M. Abad, I. González (2010). The semi-arid environment of the El Melah Lagoon (NE Tunisia). Closing evolution to a future sabkha. In: *Semi-Arid Environments: Agriculture, Water Supply and Vegetation*, Editor: Kara M. Degenovine, ISBN: 978-1-61761-215-2, 2010 Nova Science Publishers, Inc., p. 1-39.

R.A. Housley, D.C.W. Sanderson, C. I. Burbidge, D. Richter, T.F.G. Higham (2010) 'Luminescence analyses (OSL and TL) and AMS Radiocarbon determinations from Kabazi V', In Chabai, V. (ed), *Karabai, Palaeolithic Sites of Crimea*. Chapter 3 p.51-67.

V.E. Turner, E.B.A. Guttman, I.A. Simpson, C.I. Burbidge (2010) 'Old Scatness: the Viking and Norse anthrosols', In Dockrill, S.J., Bond, J.M., Turner, V.E., Brown, L.D., Bashford, D.J., Cussans, J.E. and Nicholson, R.A. *Excavations at Old Scatness, Shetland Volume 1: The Pictish Village and Viking Settlement*. Lerwick: Shetland Heritage Publications p.196-200.

### Journals

M.J. Trindade, M.I. Dias, M.I. Prudêncio & F. Rocha (2010). Uranium and other elements in residual clays of dolerites, granites and aplite-pegmatites from Central Portugal. *Geochimica et Cosmochimica Acta*, 74, issue 12, suplement 1, A1056.

M.I. Dias, M.I. Prudêncio, M.A. Gouveia, M.J. Trindade, R. Marques, D. Franco, J. Raposo, C.S. Fabião & A. Guerra (2010). Chemical tracers of Lusitanian amphorae kilns from the Tagus estuary (Portugal). *Journal of Archaeological Science*, 37, 784-798.

M.J. Trindade, F. Rocha & M.I. Dias (2010). Geochemistry and mineralogy of clays from the Algarve Basin, Portugal: a multivariate approach to palaeoenvironmental investigations. *Current Analytical Chemistry*, 6, 43-52.

M.J. Trindade, M.I. Dias, J. Coroado & F. Rocha (2010). Firing tests on clay-rich raw materials from the Algarve Basin (Southern Portugal): Study of the mineral transformations with temperature. *Clays and Clay Minerals*, 58, 188-204.

M.I. Prudêncio, M.I. Dias, F. Ruiz, J.C. Waerenborgh, J. Duplay, R. Marques, D. Franco, R. Ben Ahmed, M.A. Gouveia and M. Abad. (2010). "Soils in the semi-arid area of the El Melah Lagoon (NE Tunisia)

Variability associated with a closing evolution"; *Catena*; vol.80; 9-22.

R. Marques, A. Jorge, D. Franco, M.I. Dias, M.I. Prudêncio (2010). "Clay resources in Nelas region (Beira Alta), Portugal. A contribution for the characterization of potential raw materials for prehistoric ceramic production". *Clay Minerals*, 45, 353-370.

M.J. Trindade, M.I. Dias, M.I. Prudêncio & F. Rocha (2010). Urânio e outros elementos em argilas residuais de doleritos, granitos e aplito-pegmatitos da região de Fornos de Algodres, Beira Alta. *Revista electrónica e-Terra*, <http://e-terra.geopor.pt>, ISSN 1645-0388, 13 (5), 1-4.

Sanjurjo Sánchez, J., Trindade, M., Blanco-Rotea, R., Benavides Garcia, R., Fernández Mosquera, D., Burbidge, C., Prudêncio, M., Dias, M., 2010. Chemical and mineralogical characterization of historic mortars from the Santa Eulalia de Bóveda temple, NW Spain. *Journal of Archaeological Science*, Volume 37, Issue 9, September 2010, Pages 2346-2351.

### Conference Proceedings

M.I. Prudêncio, F. Ruiz, M.I. Dias, R. Marques, J.C. Waerenbrogh, M.J. Trindade, M. Abad, D. Franco (2010). Geochemistry, mineralogy and micropaleontology of a pedogenic calcrete profile (Slimene, NE Tunisia). 19<sup>th</sup> World Congress of Soil Science, Soil Solutions for a Changing World. 1 – 6 August 2010, Brisbane, Australia. Published on DVD, 106-109.

R. Marques, M.I. Prudêncio, F. Rocha, E. Ferreira Da Silva (2010). Geochemistry and mineralogy of volcanic soils from Ocean Fogo island (Cape Verde). 19<sup>th</sup> World Congress of Soil Science, Soil Solutions for a Changing World. 1 – 6 August 2010, Brisbane, Australia. Published on DVD, 102-105.

J. Sanjurjo Sánchez, D. Fernández Mosquera, M.I. Dias, C.I. Burbidge, M.I. Prudêncio (2010). Consideraciones metodológicas en la datación por Luminiscencia de materiales de construcción: el caso de los morteros, Carrasco, M.E., Romero, R.L., Diaz-Tendero, M.A., Garcia, J.C. eds. "Actas – VIII Congreso Iberico de Arqueometria". p. 251-258.

M.O. Figueiredo, T.P. Silva, J.P. Veiga, M.I. Prudêncio, M.I. Dias, M.A. Matos, A.M. Pais (2010) "Blue pigments in XVI-XVII cent. glazes: a comparative study between Portuguese faiences and contemporary Chinese porcelains manufactured for the Portuguese market", 2nd Latin-American

Symposium on Physical and Chemical Methods in Archaeology, Art and Cultural Heritage Conservation (LASMAC 2009). Selected Papers Archaeological and Arts Issues in Materials Science. J.L. Ruvalcaba Sil, et al. eds., Univ. Nac. Autónoma de México, 2010, p. 84-88.

## Communications

### Oral

M.I. Prudêncio. RADIART: um projecto interdisciplinar centrado no uso de técnicas não invasivas para o diagnóstico, descontaminação e conservação da herança cultural. Congresso Internacional "A Herança de Santos Simões - Novas Perspectivas para o Estudo da Azulejaria e Cerâmica", Universidade de Lisboa, Nov. 2010.

M.I. Dias. Datação, autenticidade, materiais, pigmentos. Estudos laboratoriais sobre Faiança Portuguesa e Porcelana Chinesa produzida para o mercado Português (séculos XVII a XVIII). Congresso Internacional "A Herança de Santos Simões - Novas Perspectivas para o Estudo da Azulejaria e Cerâmica", Universidade de Lisboa, Nov. 2010.

M.I. Prudêncio. Nuclear Techniques for the characterization and preservation of the Portuguese cultural heritage – research activities developed during 2009-2010. IAEA TC Project RER/8/015. Regional Planning and Coordination Meeting. 6-9 Sept. 2010 St Julian's, Malta.

C.I. Burbidge, A.C. Fernandes, S.I. Cabo Verde, M.I. Prudêncio, M.L. Botelho, M.I. Dias, G. Cardoso, M. Osvay, F. Rocha. Comparison of OSL and TOSL signals from quartz, for retrospective dosimetry in bio-decontamination and conservation of cultural heritage. UK Luminescence and ESR Meeting, School of Geography and the Environment, University of Oxford, 8-10 September, Oxford, UK, 2010.

M.I. Dias, M.I. Prudêncio, I. Filipe, C. Fabião, R. Marques, D. Franco, M.J. Trindade. The amphorae from the Roman fish-salted factory of the Casa do Governador da Torre de Belém (Lisboa, Portugal); inferences on their provenance. International Symposium on Archeometry, ISA 2010, Tampa, Florida, USA, 10-14 May, 2010.

M.J. Trindade, M.I. Dias, M.I. Prudêncio. Urânio e outros elementos em argilas residuais de doleritos, granitos e aplito-pegmatitos da região de Fornos de Algodres, Beira Alta. VIII Congresso Nacional de Geologia, Braga, Portugal, 9-16 Julho, 2010.

A.L. Rodrigues, C.I. Burbidge, M.I. Dias, F. Rocha, M.I. Prudêncio. Dissolution rates for quartz, feldspar and polymineral samples in hydrofluoric acid and hydrofluoric-hydrochloric acid mixtures. UK TL/OSL/ESR Meeting 2010, School of Geography and the Environment, University of Oxford, 8 -12 September 2010.

### Poster

M.I. Prudêncio, F. Ruiz, M.I. Dias, R. Marques, J.C. Waerenborgh, M.J. Trindade, M. Abad & D. Franco (2010). Geochemistry, mineralogy and micropaleontology of a pedogenic calcrete profile (Slimene, NE Tunisia). In: Gilkes R.J., Prakongkep N., editors. Proceedings of the 19th World Congress of Soil Science; Soil Solutions for a Changing World; ISBN 978-0-646-53783-2; Published on DVD; <http://www.iuss.org>; Symposium 2.2.1; Biogeochemical interfaces in soils; 2010 Aug 1-6. Brisbane, Australia.

R. Marques, M.I. Prudêncio, F. Rocha, E. Ferreira da Silva. Geochemistry and mineralogy of volcanic soils from Ocean Fogo island (Cape Verde). In: Gilkes R.J., Prakongkep N., editors. Proceedings of the 19th World Congress of Soil Science; Soil Solutions for a Changing World; ISBN 978-0-646-53783-2; Published on DVD; <http://www.iuss.org>; Symposium 2.2.1; Biogeochemical interfaces in soils; 2010 Aug 1-6. Brisbane, Australia.

M.I. Prudêncio, T.P. Silva, M.I. Dias, J.G. Marques, M.A. Stanojev Pereira, M.O. Figueiredo, L. Esteves, M.B. Albuquerque, M.L. Botelho, S.I. Cabo Verde, M.J. Trindade, C.I. Burbidge, R. Marques. Non-destructive and micro-invasive techniques for cultural heritage diagnostics: A case-study of glazed tiles from Portuguese historical buildings. 38th International Symposium on Archaeometry. Tampa, Florida. USA. 10-14 Maio 2010.

M.I. Dias, C.I. Burbidge, G. Cardoso, L. Oosterbeek, C. Scarre, M.I. Prudêncio, D. Franco, A. Cruz, P. Cura. "Luminescence dating in transition landscape of the Ribatejo, Portugal". 38th International Symposium on Archaeometry. Florida, USA. 10-14 Maio 2010

R. Marques, M. I. Prudêncio, F. Rocha, E. Ferreira da Silva, A. F. Lobo de Pina. Atlas geoquímico da ilha do Fogo, Cabo Verde – concentração total dos elementos químicos nos solos e mineralogia. X Congresso de Geoquímica de países de língua Portuguesa. Porto. Portugal. 28 Março a 1 Abril de 2010.

M.J. Trindade, M.I. Dias, M.I. Prudêncio & F. Rocha. Uranium and other elements in residual clays of dolerites, granites and aplite-pegmatites from Central Portugal. Goldschmidt 2010, Knoxville, Tennessee, US, 13-18 Junho, 2010.

M.J. Trindade, M.I. Prudêncio, J. Sanjurjo Sánchez, J.R. Vidal Romaní & T. Ferraz. Geochemistry of lanthanides and other trace elements associated to Mn concentration in surface environments. X Congresso de Geoquímica dos Países de Língua Portuguesa, VI Semana de Geoquímica, Porto, Portugal, March 28 to April 1, 2010.

C.I. Burbidge, A.C. Fernandes, S.I. Cabo Verde, M.I. Prudêncio, M.L. Botelho, M.I. Dias, M.I., G. Cardoso, M. Osvay. Retrospective dosimetry of ceramics irradiated for bio-decontamination and conservation of cultural heritage. EPRBioDose2010, Mandelieu La Napoule (France) 10-14 October 2010.

F. Trompier, L. Ainsbury, C. Burbidge, U. Kulka, H. Romm, K. Rothkamm, L. Roy, C.A. Whitehouse, P. Fattibene. EURADOS survey for physical dosimetry methods in emergency preparedness and population triage. EPRBioDose2010, Mandelieu La Napoule (France) 10-14 October 2010.

C.P. Odriozola, C. Burbidge, M.I. Dias, V. Hurtado. Dating of Las Mesas fortified site (Badajoz, Spain). 38<sup>th</sup> International Symposium on Archaeometry (ISA 2010) May 10<sup>th</sup> - 14<sup>th</sup>, 2010 Tampa, Florida.

## Theses

### PhD

Ana Sofia Jorge, “Ceramic technology and social networks in Late Neolithic to Early Bronze Age”. Portugal. Supervisors: M. Isabel Dias (ITN) and Peter Day. Univ. Sheffield. 2005-2010.

## Environmental and Analytical Chemistry

### Books and Book Chapters

G. Almendros, F. J. González-Vila, J.A. González-Pérez, H. Knicker, J.M. De la Rosa. (2010). Protocolos y técnicas analíticas e instrumentales para evaluar el impacto del fuego sobre la materia orgánica del suelo. In A. Cerdá, A. Jordán (Eds), Actualización en métodos y técnicas para el estudio de los suelos afectados por incendios forestales. 289-325 ISBN: 978-84-370-7887-8. Valencia, Universitat de Valencia (España).

A.P. Gonçalves, A.M.M. Soares (2010) As “contas de colar” dos Ratinhos – I. As contas em pedra, análise por Difracción de Raios X. In: L. Berrocal-Rangel, A.C. Silva, O Castro dos Ratinhos (Barragem do Alqueva, Moura). Escavações num povoado proto-histórico do Guadiana, 2004-2007. O Arqueólogo Português, Suplemento 6, 389-392. ISBN 978-972-9257-25-4.

A.P. Gonçalves, L.C. Alves, A.M.M. Soares, J.M.M. Martins (2010) As “contas de colar” dos Ratinhos – II. Identificação duma conta preta de aspecto vítreo. Métodos instrumentais de análise na desconstrução de uma inferência arqueológica. In: L. Berrocal-Rangel.

A.C. Silva, O Castro dos Ratinhos (Barragem do Alqueva, Moura). Escavações num povoado proto-histórico do Guadiana, 2004-2007. O Arqueólogo Português, Suplemento 6, 393-396. ISBN 978-972-9257-25-4.

J.C. Senna-Martinez, J.M.Q. Ventura, H. Carvalho, M.F. Araújo, E. Figueiredo, P. Valério (2010) “Melting the power”. The foundry área of Fraga dos Corvos (Macedo de Cavaleiros, North-Eastern Portugal) In: A.M.S. Bettencourt, M.J. Sanches, L.B. Alves, R.F. Valcarce (Eds.), Conceptualising Space and Place, BAR International Series, 2058, 111-117. ISBN 978 1 4073 0547 9.

A.M.M. Soares, J.M.M. Martins (2010) A cronologia absoluta para o Castro dos Ratinhos: Datas de Radiocarbono. In: L. Berrocal-Rangel e A.C. Silva, O Castro dos Ratinhos (Barragem do Alqueva, Moura). Escavações num povoado proto-histórico do Guadiana, 2004-2007. O Arqueólogo Português, Suplemento 6, 409-414. ISBN 978-972-9257-25-4.

P. Valério, M.F. Araújo, R.J.C. Silva, A.M.M. Soares (2010) Os metais dos Ratinhos. I. A metalurgia do bronze. In: L. Berrocal-Rangel, A.C. Silva (Eds.), O Castro dos Ratinhos (Barragem do Alqueva, Moura). Escavações num Povoado Proto-Histórico do Guadiana, 2004-2007. O Arqueólogo Português, Suplemento 6, 369-380. ISBN 978-972-9257-25-4.

P. Valério, L.C. Alves, A.M.M. Soares, M.F. Araújo (2010) Os metais dos Ratinhos. II. Os botões em ouro. In: L. Berrocal-Rangel, A.C. Silva (Eds.), O Castro dos Ratinhos (Barragem do Alqueva, Moura). Escavações num Povoado Proto-Histórico do Guadiana, 2004-2007. O Arqueólogo Português, Suplemento 6, 381-388.

### Journals

M.J. Afonso, H.I. Chaminé, J.M. Marques, P.M. Carreira, L. Guimarães, L. Guilhermino, A. Gomes, P.E. Fonseca, A. Pires, F. Rocha (2010) Environmental issue in urban groundwater systems: a multidisciplinary study of the Paranhos and Salgueiros spring waters, Porto (NW Portugal). Environmental Earth Sciences, 61, 379-392.

P.M. Carreira, J.M. Marques, A. Pina, A. Mota Gomes, P.A. Galego Fernandes, F. Monteiro Santos (2010) Groundwater Assessment at Santiago Island (Cabo Verde): a multidisciplinary approach to a recurring source of water supply. Water Resources Management, 24, 1139 – 1159.

P.M. Carreira, J.M. Marques, M.R. Carvalho, G. Capasso, F. Grassa (2010) Mantle-derived carbon in Hercynian granites. Stable isotope signatures and C/He associations in the thermomineral waters, N-Portugal. Journal of Volcanology and Geothermal Research, 189, 49-56.

A.L. De Man, A.M.M. Soares, J.M.M. Martins (2010) A datação pelo radiocarbono de contextos funerários da denominada basílica paleocristã de Conimbriga. Arqueologia Medieval, 11, 5-9.

E. Figueiredo, R.J.C. Silva, M.F. Araújo, J.C. Senna-Martinez (2010) Identification of ancient gilding technology and Late Bronze Age metallurgy by EDXRF, Micro-EDXRF, SEM-EDS and metallographic techniques. Microchimica Acta, 168, 283-291.

- E. Figueiredo, R.J.C. Silva, F.M.B. Fernandes, M.F. Araújo (2010) Some long term corrosion patterns in archaeological metal artefacts. *Materials Science Forum*, 636-637, 1030-1035.
- E. Figueiredo, R.J.C. Silva, J.C. Senna-Martinez, M.F. Araújo, F.M.B. Fernandes, J.L. Inês Vaz (2010) Smelting and recycling evidences from the Late Bronze Age habitat site of Baiões (Viseu, Portugal). *Journal of Archaeological Science*, 37, 1623-1634.
- M.J. Furtado, R.J.C. Silva, M.F. Araújo, F.M. Braz Fernandes (2010) Composition and microstructures of imperial brass Chinese coins. *Materials Science Forum*, 636-637, 531-537.
- P. Galego Fernandes, P.M. Carreira, M. Bahir (2010) Mass balance simulation and principal components analysis applied to groundwater resources: Essaouira basin (Morocco). *Environmental Earth Sciences*, 59 (7), 1475-1484.
- F. Grassa, G. Capasso, Y. Oliveri, A. Sollami, P. Carreira, M.R. Carvalho, J. M. Marques, J.C. Nunes (2010) Nitrogen isotopes determination in natural gas: analytical method and first results on magmatic, hydrothermal and soil gas samples. *Isotopes in Environmental and Health Studies*, 46 (2), 141-155.
- J. M. Marques, P.M. Carreira, J. Espinha Marques, H.I. Chaminé, P.E. Fonseca, F.A. Monteiro Santos, H.G.M. Eggenkamp, J. Teixeira (2010) The role of geosciences in the assessment of low-temperature geothermal resources (N-Portugal): a review. *Geosciences Journal*, 14 (4), 329-446.
- J.M. Marques, H.G.M. Eggenkamp, H. Graça, P.M. Carreira, J. M. Matias, B. Mayer, D. Nunes (2010) Assessment of recharge and flowpaths in a limestone thermomineral aquifer system using environmental isotope tracers (Central Portugal). *Isotopes in Environmental and Health Studies*. 46 (2), 156-165.
- S. Moreira, M.C. Freitas, M.F. Araújo C. Andrade, F. Fatela (2010). Caracterização da sedimentação secular em ambientes intermareais do Estuário do Mira. e-Terra: Revista Electrónica de Ciências da Terra, Volume 12, nº 1, 4p.
- J. Rodríguez-Vidal, A.M.M. Soares, F. Ruiz, L.M. Cáceres (2010) Comment on "Formation of chenier plain of the Doñana marshland (SW Spain): Observations and geomorphic model" by A. Rodríguez-Ramírez and C.M. Yáñez-Camacho [*Marine Geology* 254 (2008) 187-196]. *Marine Geology*, 275, 292-295.
- A.M.M. Soares (2010) Comment on "Formation of chenier plain of the Doñana marshland (SW Spain): Observations and geomorphic model" by A. Rodríguez-Ramírez and C.M. Yáñez-Camacho [*Marine Geology* 254 (2008) 187-196]. *Marine Geology*, 275, 287-289.
- A.M.M. Soares, P. Valério, R.J.C. Silva, L.C. Alves, M.F. Araújo (2010) Early Iron Age gold buttons from South-Western Iberian Peninsula. Identification of a gold metallurgical workshop. *Trabajos de Prehistoria*, 67 (2) 501-510.
- P. Valério, R.J.C. Silva, M.F. Araújo, A.M.M. Soares, F.M. Braz Fernandes (2010) Microstructural signatures of bronze archaeological artifacts from the southwestern Iberian Peninsula. *Materials Science Forum*, 636-637, 597-604.
- P. Valério, R.J.C. Silva, A.M.M. Soares, M.F. Araújo, F.M. Braz Fernandes, A.C. Silva, L. Berrocal-Rangel (2010) Technological continuity in Early Iron Age bronze metallurgy at the South-Western Iberian Peninsula – a sight from Castro dos Ratinhos. *Journal of Archaeological Science*, 37, 1811-1919.
- J. Zilhão, S.J.M. Davis, C. Duarte, A.M.M. Soares, P. Steier, E. Wild (2010) Pego do Diabo (Loures, Portugal): Dating the Emergence of Anatomical Modernity in Westernmost Eurasia. *PLoS ONE*, 5(1): e8880.

### Conference Proceedings

M.F.Araújo (2010) Geoquímica Elementar do Registo Sedimentar Holocénico. COASTAL HOPE 2010 - Iberian Coastal Holocene Paleoenvironmental Evolution – PROCEEDINGS, Ed., M.C. Freitas, C. Andrade, Lisboa, 5-7. ISBN: 978-989-20-1986-4.

A.Cruces, M.C. Freitas, C. Andrade, M.F. Araújo, T. Ferreira (2010) – Paleoclimatic events and sea-level evolution based on natural archives of wet dune slacs in the SW coast of Portugal. COASTAL HOPE 2010 - Iberian Coastal Holocene Paleoenvironmental Evolution – PROCEEDINGS, Ed., M.C. Freitas, C. Andrade, Lisboa, pp.29-30. ISBN:978-989-20-1986-4.

M.F. Ben Hamouda, R.M.D. Gonçalves P.M.M. Fontes Represas, P.M. Carreira, F. A. Monteiro Santos (2010) Water salinity origin at Sousse region (Tunisia). A multi survey approach to the problem. Proceedings of SWIM 21 – 21st Salt Water Intrusion Meeting. Azores, S. Miguel, Portugal. 21-25 June, 73-74. ISBN 978-972-97711-5-6

E. Figueiredo, P. Valério, M.F. Araújo, R.J.C. Silva, M.V. Gomes (2010) Estudo analítico de vestígios metalúrgicos do povoado do Escoural (Évora, Portugal). In: J.A. Pérez Macias and E. Romero Bomba (Eds.) IV Encontro de Arqueologia del Suroeste Peninsular, *Collectanea* 145, Universidad de Huelva Publicaciones, Spain, cd-rom (ISBN 978-84-92679-59-1).

M.J. Furtado, R.J.C. Silva, M.F. Araújo, F.M. Braz Fernandes (2010) Influence of Minor Elements in Ancient Chinese Brass Coins Microstructures. TOFA 2010, O'Porto, Portugal, 12-16 September, e-book (ISBN: 978-972-752-126-5).

J.M. Marques, H.G.M. Eggenkamp, P.M. Carreira, J. Espinha Marques, H.I. Chaminé, J. Teixeira (2010) Assessment of two low-temperature geothermal resources in North Portugal. Proceedings of the 13th International Conference on Water-Rock Interaction, WRI-13, Peter Birkle & Ignacio S. Torres-Alvarado

Eds. Guanajuato, Mexico, 16-20 August. 165-168. ISBN 978-0-415-060426-0.

S. Moreira, M.C. Freitas, M.F. Araújo, A. Cruces, C. Andrade, R. Regala, V. Lopes (2010) – Paleoenvironmental evolution of Pederneira lagoon (Nazaré, Portugal) using sedimentological and geochemical proxies. COASTAL HOPE 2010 - Iberian Coastal Holocene Paleoenvironmental Evolution – PROCEEDINGS, Ed., M.C. Freitas, C. Andrade, Lisboa, 76-77. ISBN: 978-989-20-1986-4.

A.M.M. Soares, A. Mederos Martín, J.M.M. Martins (2010) Correção das Datas de Radiocarbono de Conchas Marinhas provenientes do Arquipélago das Canárias. In: M.E. Saiz Carrasco, R. López Romero, M.A.C. Díaz-Tendero, J.C. Calvo Garcia (eds.), Actas del VIII Congreso Ibérico de Arqueometría (Teruel, 19-21 de octubre de 2009). Teruel: Seminario de Arqueología y Etnología Turolense. 241-249. ISBN: 978-84-8854938-9.

A.M.M. Soares, P. Valério, R.J.C. Silva, L.C. Alves, M.F. Araújo (2010) Micro-PIXE role in the identification of the soldering process in Early Iron Age gold buttons from the southwestern Portugal. 12th International Conference on Nuclear Microprobe Technology and Applications, Leipzig, Germany, 26-30 July, 166. ISBN 978-3-86583-417-1.

## Communications

### Oral

P. Álvarez-Iglesias, M.F. Araújo, T. Drago (2010) Geochemical analysis of the recent sedimentary record of the Miño and Duero Estuaries. Antropicosta iberoamerica, São Paulo, Brasil, April 2010.

P. Alvarez-Iglesias, A. Andrade, K.J. Mohamed, D. Rey, A.M. Bernabeu, B. Rubio, F. Vilas, M. Fedi, E.M. Wild, J. Santos, L. Caforio, A.M.M. Soares, P. Steier, I. Gómez, F. Taccetti (2010) Variability in sedimentation rates in the northwestern Iberian margin. 4th IGCP 526 meeting “Risks, Resources, and Record of the Past on the continental shelves”, Vigo, Spain 28 September-1 October. Abstracts, S4-3 (CD-Rom).

M.F. Araújo, C. Corredeira, M. Santos, J.M.A. Dias (2010) Avaliação de impactes antrópicos em sedimentos recentes da plataforma continental portuguesa. Antropicosta iberoamerica, São Paulo, Brasil, April 2010.

M.F. Araújo, R.J.C. Silva, J.C. Senna-Martinez, P. Valério, E. Figueiredo, A.M.M. Soares (2010) Investigação em arqueometalurgia em Portugal: resultados recentes e perspectivas futuras de uma equipa multidisciplinar. 8º Encontro de Arqueologia do Algarve, Silves, Portugal, 21-23 October, 22-23.

M.F. Araújo, R.J.C. Silva, J.C. Senna-Martinez, P. Valério, E. Figueiredo, A.M.M. Soares (2010) An archaeometallurgical working group in Portugal: research achievements and perspectives. 1<sup>st</sup> International Congress Settlement and Mining

Exploration in the Atlantic Western Europe, Braga, Portugal, 10-11 December, 36.

P.M. Carreira, P.A. Galego Fernandes, D. Nunes (2010) Environmental isotopes in the assessment of groundwater salinization sources: seawater intrusion vs. diapiric dissolution in coastal aquifers – S-Portugal. Book of Abstracts of 6ème Congrès de la Société Française des Isotopes Stables, SFIS, Toulouse, France, 25-29 October. 1-P18.

E.Di Santo, M.C. Michelini, J. Marçalo, M.Santos, A.P.de Matos, R.G. Haire, N. Russo, J.K. Gibson (2010) Reactions of Dipositive Actinide Ions with Small Alkanes: A Combined Theoretical and Experimental Study. MRS Spring Meeting 2010, S. Francisco, Califórnia (EUA), Abril de 2010.

P.M. Carreira (2010) Hidrogeoquímica e hidrologia isotópica na bacia do rio Zêzere a montante de Manteigas. Seminário “Recursos hídricos subterrâneos na bacia do rio Zêzere a montante de Manteigas”. Torre Parque Natural da Serra da Estrela, Portugal, 8 June.

E. Figueiredo, M.F. Araújo, R.J.C. Silva (2010) The contribution of a multi-analytical approach to the comprehension of ancient metallurgy of the Portuguese territory. 1<sup>st</sup> International Congress Settlement and Mining Exploration in the Atlantic Western Europe, Braga, Portugal, 10-11 December.

E. Figueiredo, M.F. Araújo, R.J.C. Silva, J.C. Senna-Martinez, J.L. Inês Vaz (2010) Some insights into the Late Bronze Age metallurgy of Baiões/Santa Luzia cultural group (Beira Alta, Portugal) by a multi-proxy approach. VI Simpósio sobre Mineração e Metalurgia Históricas no Sudoeste Europeu, Vila Velha de Ródão, Portugal, 18-20 June.

M.J. Furtado, M.F. Araújo, R.J.C. Silva (2010) Pb in ancient Chinese Cu-based coins: a multi-analytical survey. European Conference on X-Ray Spectrometry, Figueira da Foz, Portugal, 20-25 June.

M.J. Furtado, R.J.C. Silva, M.F. Araújo, F.M. Braz Fernandes (2010) Some corrosion issues in ancient Chinese brass coins: Influence of minor elements in corrosion susceptibility. EUROCORR 2010, Moscow, Russia, 13-17 September (CD-ROM).

J.M. Marques, P.M. Carreira, M.J. Matias, M.J. Basto, L.A. Aires-Barros (2010) Isotopic signatures as tracers of the origin of the waters and water-rock interaction processes in a region of CO<sub>2</sub>-rich thermal-mineral waters (N-Portugal): questions and answers. . Book of Abstracts of 6ème Congrès de la Société Française des Isotopes Stables, SFIS, Toulouse, France, 25-29 October. 3-P5.

J.M.M. Martins, A.M.M. Soares (2010) The variability of the marine radiocarbon reservoir effect in southern Iberian coast. 4th IGCP 526 meeting “Risks, Resources, and Record of the Past on the continental shelves”, Vigo, Spain 28 September-1 October. Abstracts, S1-4 (CD-Rom).

J.M.M. Martins (2010) Radiocarbon dating of aeolianites from the Algarve coast. Seminários Mar e Ambiente 2010, Universidade do Algarve, Faro, Portugal, 17 December.

J.C. Senna-Martinez, E. Figueiredo, M.F. Araújo, R.J.C. Silva, P. Valério, J.L.I. Vaz (2010) Metalurgia e sociedade no mundo “Baiões/Santa Luzia”: resultados do projecto METABRONZE. 1st International Congress Settlement and Mining Exploration in the Atlantic Western Europe, Braga, Portugal, 10-11 December, 40.

J.C. Senna-Martinez, E. Luís, M.F. Araújo, R.J.C. Silva, E. Figueiredo, P. Valério (2010) Os primeiros bronzes peninsulares: metalurgia e sociedade no habitat da Fraga dos Corvos (Macedo de Cavaleiros). 8º Encontro de Arqueologia do Algarve, Silves, Portugal, 21-23 October, 24.

J.C. Senna-Martinez, E. Luís, M.F. Araújo, R.J.C. Silva, E. Figueiredo, P. Valério (2010) Primeiros bronzes no noroeste peninsular: os dados do habitat da Fraga dos Corvos (Macedo de Cavaleiros). 1st International Congress Settlement and Mining Exploration in the Atlantic Western Europe, Braga, Portugal, 10-11 December, 38.

J.C. Senna-Martinez, E. Luís, M.F. Araújo, P. Valério, J.M.Q. Ventura (2010) Metalurgia e sociedade na Primeira Idade do Bronze na plataforma do Mondego. 1st International Congress Settlement and Mining Exploration in the Atlantic Western Europe, Braga, Portugal, 10-11 December, 39.

P. Valério, M.F. Araújo, R.J.C. Silva, A.M.M. Soares, F.M. Braz Fernandes (2010) A metalurgia do cobre no sul do território Português entre o Bronze Médio e a 1ª Idade do Ferro: teores de ferro e inclusões Cu-S. VI Simpósio sobre Mineração e Metalurgia Históricas no Sudoeste Europeu, Vila Velha de Ródão, Portugal, 18-20 June.

P. Valério, R.J.C. Silva, M.F. Araújo, A.M.M. Soares, L. Barros (2010) Influências orientalizantes na metalurgia do bronze do sul do território Português: estudo por Micro-EDXRF, OM e SEM-EDS de artefactos da Quinta do Almaraz. 8º Encontro de Arqueologia do Algarve, Silves, Portugal, 21-23 October, 25.

P. Valério, R.J.C. Silva, M.F. Araújo, A.M.M. Soares, L. Barros (2010) Orientalising influences on bronze metallurgy at southern Portugal: Micro-EDXRF, OM and SEM-EDS evidences from Quinta do Almaraz. 1st International Congress Settlement and Mining Exploration in the Atlantic Western Europe, Braga, Portugal, 10-11 December, 54.

H.F.V. Cardoso, K. Puentes, A.M.M. Soares, A. Santos, T. Magalhães, (2010). A utilidade da datação pelo radiocarbono de restos humanos esqueletizados, quando existem dúvidas quanto à sua modernidade – a propósito de um caso. 9º Congresso Nacional de Medicina Legal e Ciências Forenses (Braga, 4-6 Novembro 2010).

## Poster

C.M.S. Cruz, A.M.S. Bettencourt, E. Figueiredo, M.F. Araújo (2010) Achados metálicos de cobre no Baixo Vouga (Centro-Norte de Portugal). 1st International Congress Settlement and Mining Exploration in the Atlantic Western Europe, Braga, Portugal, 10-11 December.

J.A. González-Pérez, C.P. de Assis, F.J. González-Vila, J.M. de la Rosa, C. Marfil, I. Jucksch, J.C. Lima Neves, J.L. Lani; E. de Sá Mendonça, G. (2010) Molecular Proxies for Soil Carbon Storage Patterns in Humic and Fulvic Acids from Oxisols in Minas Gerais State (Brazil). XV Meeting of the International Humics Substances Society: Puerto de la Cruz, Spain. 28 June-2 July.

E. Figueiredo, M.F. Araújo, R.J.C. Silva, J.C. Senna-Martinez, J.L. Inês Vaz (2010) Metalurgia no grupo Baiões/Santa Luzia: alguns resultados de estudos analíticos. 8º Encontro de Arqueologia do Algarve – A Arqueologia e outras Ciências, Silves, Portugal, 21-23 October.

E. Figueiredo, M.J. Furtado, P. Valério, R.J.C. Silva, M.F. Araújo, A.M.M. Soares, F. M. Braz Fernandes, (2010) Cultural Materials – Studies on Archaeological and Museological Metallic Artefacts. II Annual Meeting I3N, Fátima, Portugal, 5-6 February.

E. Figueiredo, P. Valério, M.F. Araújo, R.J.C. Silva, A.M. Monge Soares (2010) A study on inclusions and metal composition of ancient copper-based artefacts by Micro-EDXRF and SEM-EDS. European Conference on X-Ray Spectrometry (EXRS), Figueira da Foz, Portugal, 20-25 June.

S.S. Figueiredo, E. Figueiredo, M.V.S. Figueiredo, M.F. Araújo, A.M. Batista, P. Guimarães (2010) Mining engraved in rock: Miner’s tools represented in “Fraga da Ferradura” rock art site (Arouca, NW Portugal). 1st International Congress Settlement and Mining Exploration in the Atlantic Western Europe, Braga, Portugal, 10-11 December.

J.M. de la Rosa, M. Santos, F.J. González Vila, H. Knicker, J.A. González Pérez, M.F. Araújo (2010) Metal binding by humic acids extracted from recent sediments from the SW Iberian coastal area. XV Meeting of the International Humics Substances Society: Puerto de la Cruz, Spain. 28 June-2 July.

J.M. de la Rosa, H. Knicker (2010) How does pyrogenic organic matter affect the N dynamic in agricultural soils?. European Goscience Union meeting: Viena, Austria. 20-23 April.

M. Simas, T. Ferreira, C. Dias, N. Schiavon, E. Fragoso, M.J. Furtado, R.J.C. Silva, A. Le Gac, A. Alegria (2010) Brass lamps: Preliminary study on the constituent materials and production technology by X-ray and microscopical techniques. European Conference on X-Ray Spectrometry, Figueira da Foz, Portugal, 20-25 June.

**Theses****PhD**

E. Figueiredo (2010) A study on metallurgy and corrosion of ancient copper-based artefacts from the Portuguese territory. PhD thesis in Conservation Sciences, Departamento de Conservação e Restauro, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa.

**MSc**

Gerardo Vidal Gonçalves (2010) Radiocarbon dates of the Portuguese Recent Prehistory and Protohistory: revision, calibration and data analysis. MSc thesis of Gerardo Vidal Gonçalves, Universidade de Évora, June 15<sup>th</sup>.

João Francisco Carrapiço Barreto (2010) Chemical, mineralogical and textural characterization of pattern-burnished ceramics from SW Late Bronze Age settlements at Enxoé River basin. MSc thesis in Conservation and Restoration Department, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, November 19<sup>th</sup>.

## Inorganic and Organometallic Chemistry

**Book Chapters**

M.C. Heaven, J.K. Gibson, J. Marçalo, Molecular Spectroscopy and Reactions of Actinides in the Gas Phase and Cryogenic Matrices, in *The Chemistry of the Actinide and Transactinide Elements, 4th Edition*, L.R. Morss, N.M. Edelstein, J. Fuger, Editors, Springer, Dordrecht, The Netherlands, 2010, Vol. 6, Ch. 38, pp. 4079-4156.

**Journals**

A.C. Ferreira, A.M. Ferraria, A.M. Botelho do Rego, A.P. Gonçalves, A. Violeta Girão, M.R. Correia, T. Almeida Gasche, J.B. Branco, Partial Oxidation of Methane over Bimetallic Copper–Cerium Oxide Catalysts, *J. Mol. Catal. A-Chem.* 320 (2010) 47–55.

A.C. Ferreira, A.M. Ferraria, A.M. Botelho do Rego, A.P. Gonçalves, M.R. Correia, T. Almeida Gasche, J.B. Branco, Partial Oxidation of Methane over Bimetallic Nickel–Lanthanide Oxides, *J. Alloys Comp.* 489 (2010) 316–323.

A.C. Ferreira, A.P. Gonçalves, T. Almeida Gasche, A.M. Ferraria, A.M. Botelho do Rego, M.R. Correia, A.M. Bola, J.B. Branco, Partial Oxidation of Methane over Bimetallic Copper– and Nickel–Actinide Oxides (Th, U), *J. Alloys Comp.* 497 (2010) 249–258.

M.R. Gonçalves, A. Gomes, J. Condeço, R. Fernandes, T. Pardal, C.A.C. Sequeira, J.B. Branco, Selective Electrochemical Conversion of CO<sub>2</sub> to C<sub>2</sub> Hydrocarbons, *Energ. Convers. Manage.* 51 (2010) 30–32.

M.C. Michelini, J. Marçalo, N. Russo, J.K. Gibson, Gas-Phase Reactions of Uranate Ions, UO<sub>2</sub><sup>-</sup>, UO<sub>3</sub><sup>-</sup>, UO<sub>4</sub><sup>-</sup>, and UO<sub>4</sub>H, with Methanol: A Convergence of Experiment and Theory, *Inorg. Chem.* 49 (2010) 3836-3850.

X. Wang, L. Andrews, P.-A. Malmqvist, B.O. Roos, A.P. Gonçalves, C.C.L. Pereira, J. Marçalo, C. Godart, B. Villeroy, Infrared Spectra and Quantum Chemical Calculations of the Uranium Carbide Molecules UC and CUC with Triple Bonds, *J. Am. Chem. Soc.* 132 (2010) 8484-8488

P. Neves, C.C.L. Pereira, F.A. Almeida Paz, S. Gago, M. Pillinger, C.M. Silva, A.A. Valente, C.C. Romão, I.S. Gonçalves, Cyclopentadienyl Molybdenum Dicarbonyl Eta(3)-allyl Complexes as Catalyst Precursors for Olefin Epoxidation. Crystal Structures of Cp'Mo(CO)<sub>2</sub>(eta(3)-C<sub>3</sub>H<sub>5</sub>) (Cp'=eta(5)-C<sub>5</sub>H<sub>4</sub>Me, eta(5)-C<sub>5</sub>Me<sub>5</sub>), *J. Organomet. Chem.* 695 (2010) 2311-2319.

R.G. Simões, A.I. Aleixo, A.L.C. Lagoa, M.E. Minas da Piedade, J.P. Leal, T. Peitsch, M. Epple, Thermoanalytical and Structural Characterization of Fluorinated Calcium Phosphates Prepared in Anhydrous Alcohols, *J. Therm. Anal. Calorim.* 100 (2010) 509-517.

J.P. Leal, Standard Enthalpies of Formation of Li, Na, K and Cs Thiolates, *J. Therm. Anal. Calorim.* 100 (2010) 441-446.

J. Vitorino, J.P. Leal, M.E. Minas da Piedade, J.N. Canongia Lopes, J. Esperança, L.P. Rebelo, The Nature of Protic Ionic Liquids in the Gas Phase Revisited: Fourier Transform Ion Cyclotron Resonance Mass Spectrometry Study of 1,1,3,3-Tetramethylguanidinium Chloride, *J. Phys. Chem. B* 114 (2010) 8905-8909.

J. Vitorino, J.P. Leal, P. Licence, K.R.J. Lovelock, P.N. Gooden, M.E. Minas da Piedade, K. Shimizu, L.P.N. Rebelo, J.N. Canongia Lopes, Vaporisation of a Dicationic Ionic Liquid Revisited, *ChemPhysChem* 11 (2010) 3673-3677.

M.H. Casimiro, M.H. Gil, J.P. Leal, Suitability of Gamma Irradiated Chitosan/pHEMA Membranes to be Used as Matrix in Drug Release System, *Int. J. Pharm.* 395 (2010) 142-146.

**Conference Proceedings**

C.C.L. Pereira, J. Marçalo, J.K. Gibson, Thermochemistry of Elementary Actinide Sulfide Molecules: A Gas-Phase Study of Curium Sulfide, *MRS Symposium Proceedings, Volume 1264, Basic Actinide Science and Materials for Nuclear Applications*, J.K. Gibson, S.K. McCall, E.D. Bauer, L. Soderholm, T. Fanghaenel, R. Devanathan, A.

## PUBLICATIONS

- Misra, C. Trautmann, B.D. Wirth (Eds.), Materials Research Society, Warrendale, PA, 2010, pp. 37-42.
- N. Pinhão, A. Janeco, J.B. Branco, Oxidation of Methane in He/CH<sub>4</sub>/CO<sub>2</sub> Mixtures: Experimental Results and Electron Kinetics, *Book of Contributed Papers, HAKONE XII - 12th International Symposium on High Pressure Low Temperature Plasma Chemistry*, J. Országh, P. Papp, Š. Matejčík (Eds.), Comenius University, Bratislava, 2010, pp. 412-416.
- L.M. Ferreira, M.H. Casimiro, J.P. Leal, A.N. Falcão, M.H. Gil, Matrizes Poliméricas Modificadas por Radiação Gama para Bioaplicações, *Proceedings Encontro Nacional de Materiais e Estruturas Compósitas (ENMEC2010)*, Porto, Portugal, A.J.M. Ferreira (Ed.), 2010.
- S.C. Leal, J.P. Leal, H. Fernandes, e-Lab Platform: Promoting Students Interest in Science, *INTED2010 Proceedings*, L. Gómez Chova, D. Martí Belenguer, I. Candel Torres (Eds.); International Association of Technology, Education and Development - IATED, Valencia, 2010, pp. 2810-2819.
- M. Varela, J.P. Leal, Teachers Use of Computers in Teaching – Portuguese Situation, *EduLearn10 Proceedings*, L. Gómez Chova, D. Martí Belenguer, I. Candel Torres (Eds.), International Association of Technology, Education and Development - IATED, Valencia, 2010, pp. 4610-4618.
- R. Amadeu, J.P. Leal, Education and Training courses for Adults: An Analysis of the Curriculum in Society, Science and Technology Items, *Proceedings of ICERI 2010 Conference*, L. Gómez Chova, D. Martí Belenguer, I. Candel Torres (Eds.), International Association of Technology, Education and Development - IATED, Valencia, 2010, pp. 2126-2133.
- S.C. Leal, J.P. Leal, H. Fernandes, e-Lab: Plataforma de Apoio ao Ensino e à Aprendizagem da Física e da Química, *Proceedings TICEDUCA2010 - Actas do 1 Encontro Internacional TIC e Educação*, F.A. Costa, G.L. Miranda, J.F. Matos, I. Chagas, E. Cruz (Eds.), Instituto de Educação da UL, Lisboa, 2010, n. 187.
- ### Communications
- #### Oral
- J.K. Gibson, T.H. Bray, P. X Rutkowski, D. Rios, D.K. Shuh, M.C. Michelini, R. Copping, J. Marçalo, Electrospray Ionization and Gas-Phase Chemistry of F-Element Complexes, *Plutonium Futures – The Science 2010*, Keystone, Colorado (USA), September 2010, invited talk.
- R. Melo, E. Takacs, J.P. Leal, M.L. Botelho, Radiolytic Degradation of Acetovanillone in Aqueous Solutions, *JECR2010 (15èmes Journées d'Etudes de la Chimie sous Rayonnement)*, Bordeaux, France, May 2010, invited talk.
- E. Di Santo, M.C. Michelini, J. Marçalo, M. Santos, A. Pires de Matos, R.G. Haire, N. Russo, J.K. Gibson, Reactions of Dipositive Actinide Ions with Small Alkanes: A Combined Theoretical and Experimental Study, *MRS Spring Meeting 2010*, S. Francisco, California (USA), April 2010.
- M.C. Michelini, J. Marçalo, N. Russo, J.K. Gibson, Gas-phase Reactions of Uranate Ions with Methanol: A Convergence of Experiment and Theory, *MRS Spring Meeting 2010*, S. Francisco, California (USA), April 2010.
- P. X Rutkowski, M.C. Michelini, N. Russo, T.H. Bray, J. Marçalo, J.K. Gibson, Hydration of Gas Phase Ytterbium Ion Complexes Studied by Experiment and Theory, *Molecular Quantum Mechanics 2010*, Berkeley, California (USA), May 2010.
- P. X Rutkowski, M.C. Michelini, T.H. Bray, J. Marçalo, J.K. Gibson, Hydration of Gas Phase Ytterbium Ion Complexes Studied by Experiment and Theory, *ACS Fall 2010 National Meeting*, Boston, Massachusetts (USA), August 2010.
- J. Marçalo, C.C.L. Pereira, C.J. Marsden, J.K. Gibson, The Uranium Disulfide Dication in the Gas Phase, *MS2010 - 4th Portuguese Mass Spectrometry Meeting*, Lisboa, December 2010.
- J.P. Leal, M.T. Fernandez, P.J.A. Madeira, P.J. Costa, J.A. Martinho Simões, M. Faddoul, M.B. Afonso, P.D. Vaz, A.R. Gomes, B.J.C. Cabral, H.F.P. Martins, V.H.C. Lopes, M.N.D.S. Cordeiro, On the Way to Predict the Antioxidant Capability of a Phenolic Compound?, *MS2010 - 4th Portuguese Mass Spectrometry Meeting*, Lisboa, December 2010.
- A. Ruivo, M.L. Botelho, A. Pires de Matos, Synthesis of Copper Ruby Glass Using Gamma Radiation, *Annual Meeting of the Society of Glass Technology*, Cambridge, UK, September 2010.
- A. Ruivo, C. Queiroz, J. Marçalo, M.L. Botelho, A. Pires de Matos. Gold Ruby Glass Doped with Lanthanide Oxides Obtained by Gamma Irradiation, *Annual Meeting of the Society of Glass Technology*, Cambridge, UK, September 2010.
- S.C. Leal, J.P. Leal, H. Fernandes, e-Lab Platform: Promoting Students Interest in Science, *INTED 2010, the International Technology, Education and Development Conference*, Valencia, Spain, March 2010.
- S.C. Leal, J.P. Leal, H. Fernandes, Creating bases for future investigation: the e-lab generation, *2th Portuguese Young Chemists Meeting – 2PYCheM*, Aveiro, April 2010.
- S.C. Leal, J.P. Leal, H. Fernandes, Workshop- e-lab: um laboratório online, *TIC@Algarve10*, Faro, July 2010.
- M. Varela, J.P. Leal, Teachers use of computers in teaching – Portuguese situation, *EDULEARN10 - International Conference on Education and New Learning Technologies*, Barcelona, Spain, July 2010,.
- S.C. Leal, J.P. Leal, H. Fernandes, e-lab: a valuable tool for teaching, *HSci2010 - 7th International*



*Conference on Hands-on Science*, Rethymno, Greece, July 2010.

S.C. Leal, J.P. Leal, H. Fernandes, e-lab: an online laboratory (workshop), *2nd International Conference. Excelence: education & human development*, Braga, September 2010.

S.C. Leal, J.P. Leal, H. Fernandes, e-lab: plataforma de apoio ao ensino e à aprendizagem da Física e da Química, *ticEDUCA2010 (1º Encontro Internacional TIC e Educação)*, Lisboa, November 2010.

#### Poster

L.M.C. Silva, T. Almeida Gasche, J.B. Branco, J.P. Leal, Synthesis and Calorimetry Studies of Metallic Polyalkoxides, *2nd Portuguese Young Chemists Meeting – 2PYCheM*, Aveiro, April 2010.

N. Pinhão, A. Janeco, J.B. Branco, Oxidation of Methane in a DBD – Catalyst System Using He/CH<sub>4</sub>/CO<sub>2</sub> or Ar/CH<sub>4</sub>/CO<sub>2</sub> Mixtures, *20th ESCAMPIG*, Novi Sad, Serbia, July 2010.

A. Ferreira, A. Janeco, N. Pinhão, A.P. Gonçalves, J.B. Branco, Catalytic Conversion of Methane over Actinide Bimetallic Oxides with N<sub>2</sub>O and O<sub>2</sub>, *XVI Encontro Luso-Galego de Química*, Aveiro, November 2010.

S. Dias, C.C.L. Pereira, N.T. Correia, L.C. Branco, C.A.T. Laia, Photophysics of an Intrinsic Luminescent Ionic Liquid, *XXIII IUPAC Symposium on Photochemistry*, Ferrara, Italia, July 2010.

J.B. Branco, J.M. Carretas, A. Cruz, M. Dias, A.C. Ferreira, T.A. Gasche, A.P. Gonçalves, M. Henriques, J.P. Leal, G. Lopes, J. Marçalo, L. Maria, B. Monteiro, I. Paiva, C.C.L. Pereira, I.C. Santos, Y. Verbovytsky, Actinide Sciences at ITN – Basic Studies in Chemistry with Potential Interest for Partitioning, Fuel Fabrication and More, *1st ACSEPT International Workshop*, Lisboa, March–April 2010.

C. Lourenço, J.M. Carretas, I. Paiva, J. Marçalo, ESI/QITMS Study of the Relative Affinity of N-donor Bases towards Pr(III) Ions in the Gas Phase, *MS2010 - 4th Portuguese Mass Spectrometry Meeting*, Lisboa, December 2010.

J.M. Carretas, C. Lourenço, J. Marçalo, Probing the Lanthanide Contraction by ESI/QITMS, *MS2010 - 4th Portuguese Mass Spectrometry Meeting*, Lisboa, December 2010.

B. Monteiro, C. Lourenço, J.M. Carretas, J. Marçalo, ESI/QITMS Study of the Coordination of a New Tetradentate N-donor Ligand by Lanthanide(III) Ions, *MS2010 - 4th Portuguese Mass Spectrometry Meeting*, Lisboa, December 2010.

A.F. Lucena, J.M. Carretas, B. Monteiro, J. Marçalo, Bidentate N-donor Adducts of Trioxidorhenium(VII) and Chloridodioxidomolybdenum(VI) – A ESI/QITMS Study, *MS2010 - 4th Portuguese Mass Spectrometry Meeting*, Lisboa, December 2010.

E. Mora, L. Maria, A. Carvalho, J.M. Carretas, J. Marçalo, Characterization of Air-sensitive Neutral Thorium and Uranium Compounds by ESI/QITMS, *MS2010 - 4th Portuguese Mass Spectrometry Meeting*, Lisboa, December 2010.

A.R. Gomes, P.J.A. Madeira, M.T. Fernandez, B.J.C. Cabral, J.P. Leal, The gas-phase acidity of Trolox, *MS2010 - 4th Portuguese Mass Spectrometry Meeting*, Lisboa, December 2010.

J. Vitorino, J.P. Leal, M.E. Minas da Piedade, A gas phase affinity of the [NTf<sub>2</sub>]<sup>-</sup> anion for several cations typical of ionic liquids, *MS2010 - 4th Portuguese Mass Spectrometry Meeting*, Lisboa, December 2010.

J. Vitorino, M.E. Minas da Piedade, J.P. Leal, The Nature of 1,1,3,3-Tetramethyl-guanidinium Chloride in the Gas Phase, *2th Portuguese Young Chemists Meeting – 2PYCheM*, Aveiro, April 2010.

J. Vitorino, J.P. Leal, M.E. Minas da Piedade, FT-ICR-MS studies of ion-molecule reactions occurring in the vapors of [Cnmim][NTf<sub>2</sub>] (n = 2, 4, 6) ionic liquids, *ICCT 2010 - 21st IUPAC International Conference on Chemical Thermodynamics*, Tsukuba, Japan, August 2010.

R. Melo, S. Cabo Verde, J.P. Leal, M.L. Botelho, Methylotrophic bacteria as precursors of the biodegradation of cork wastewater, *The Water Research Conference*, Lisboa, April 2010.

L.M. Ferreira, M.H. Casimiro, J.P. Leal, A.N. Falcão, M.H. Gil, Matrizes poliméricas modificadas por radiação gama para bioaplicações, *ENMEC 2010: Encontro Nacional de Materiais e Estruturas Compósitas*, Porto, September 2010.

R. Amadeu, J.P. Leal, Queda livre e lançamento horizontal: vantagens do uso de simulações computacionais, *FISICA 2010 (17ª Conferência Nacional de Física, 20º Encontro Ibérico para o Ensino da Física)*, Vila Real, September 2010.

S.C. Leal, H. Fernandes, J.P. Leal, e-lab potencia o ensino/aprendizagem das ciências, *FISICA 2010 (17ª Conferência Nacional de Física, 20º Encontro Ibérico para o Ensino da Física)*, Vila Real, September 2010.

R. Amadeu, J.P. Leal, Education and training courses for adults: an analysis of the curriculum in society, science and technology items, *ICERI 2010*, Madrid, Spain, November 2010.

R. Amadeu, J.P. Leal, Simulações computacionais no ensino da Física, *ticEduca2010 (1º Encontro Internacional TIC e Educação)*, Lisboa, November 2010.

R. Amadeu, J.P. Leal, As TIC: Ferramentas para a consolidação de conceitos em Química, *ticEduca2010 (1º Encontro Internacional TIC e Educação)*, Lisboa, November 2010.

S.C. Leal, J.P. Leal, Produção e avaliação de materiais didáctico/pedagógicos para o ensino da Química, *ticEduca2010 (1º Encontro Internacional TIC e Educação)*, Lisboa, November 2010.

S.C. Leal, J.P. Leal, Produção e avaliação de materiais didáctico/pedagógicos para o ensino da Química, *Workshop Ciências em Rede*, Lisboa, November 2010.

### Other publications

A.A.S.C.M. Machado, B.J. Herold, J. Cardoso, J. Marçalo, J.A.L. Costa, M.C. Magalhães, M.H. Garcia, O. Pellegrino, O. Serra, R.B. Faria, R.T. Henriques, A História da Nomenclatura Química em Português, *Química (Boletim da Sociedade Portuguesa de Química)* 118 (2010) 53-56.

A.A.S.C.M. Machado, B.J. Herold, J. Cardoso, J. Marçalo, J.A.L. Costa, M.C. Magalhães, M.H. Garcia, O. Pellegrino, O. Serra, R.B. Faria, R.T. Henriques, Os Nomes dos Elementos Químicos, *Química (Boletim da Sociedade Portuguesa de Química)* 119 (2010) 43-48.

S.C. Leal, J.P. Leal, M.A.F. Faustino, A.M.S. Silva, A Química Orgânica no Ensino Secundário: A

Percepção dos Professores, *Química (Boletim da Sociedade Portuguesa de Química)* 119 (2010) 49-54.

S.C. Leal, H. Fernandes, J.P. Leal, Plataforma e-Lab Potencia o Ensino/aprendizagem das Ciências no Ensino Básico e Secundário, *Revista Noesis on-line* ([http://sitiio.dgicd.min-edu.pt/revista\\_noesis/Documents/artigos\\_teoricos/2Sérgio%20Leal%20-%20e-lab.pdf](http://sitiio.dgicd.min-edu.pt/revista_noesis/Documents/artigos_teoricos/2Sérgio%20Leal%20-%20e-lab.pdf)).

H. Fernandes, S.C. Leal, J.P. Leal, e-Lab: O Laboratório Online, *Gazeta de Física* 33(3) (2010) 37-40.

### Theses

#### MSc

Maria Elisabete Félix Espírito Santo, A Importância da Química na Sociedade Actual, Faculdade de Ciências, Universidade de Lisboa, 2010. Supervisor: J.P. Leal.

## Radiopharmaceutical Sciences

### Journals

F. Silva, F. Marques, I. C. Santos, A. Paulo, A. Sebastião Rodrigues, J. Rueff, I. Santos, Synthesis, characterization and cytotoxic activity of gallium(III) complexes anchored by tridentate pyrazole-based ligands, *J. Inorg. Biochem.* 104 (2010) 523–532.

M. C. Oliveira, G. Ribeiro Morais, M. Imai, E. Inohae, C. Yamamoto, S. Mataka, T. Thiemann, Acid catalysed reaction of estrones with neopentyl glycol under forced conditions, *J. Chem. Res.* 34 (2010) 3158-162.

M. Imai, G. Ribeiro Morais, B. al-Hindawi, M. A. M. al-Sulaibi, Mohammad Meetani, T. Thiemann, Acid catalysed reaction of indanones, tetralones and benzosuberone with neopentyl glycol and other alkanediols under forced conditions, *J. Chem. Research* (2010) 325–329.

S. Lacerda, F. Marques, P. Campello, L. Gano, V. Kubicek, P. Hermann, I. Santos, Chemical, radiochemical and biological studies of Sm and Ho complexes of H4dota analogues containing one methylphosphonic/phosphonic acid pendant arm, *J. Label Compd. Radiopharm* 53 (2010) 36–43.

S. Chaves, S. M. Marques, A. M. F. Matos, A. Nunes, L. Gano, T. Tuccinardi, A. Martinelli, M. A. Santos, New tris(hydroxypyridinones) as iron and aluminium sequestering agents: Synthesis, complexation and in vivo studies, *Chem. Eur. J.* 16 (2010) 10535–10545.

R. Garcia, V. Kubicek, B. Drahos, L. Gano, I. C. Santos, P. Campello, A. Paulo, É Tóth, I. Santos, Synthesis, characterisation and biological evaluation of In(III) complexes anchored by DOTA-like chelators bearing a quinazoline moiety, *Metallomics* 2 (2010) 571–580.

L. M. Lima, R. Delgado, F. Marques, L. Gano; I. Santos, TETA analogue containing one

methylenephosphonate pendant arm: Lanthanide complexes and biological evaluation of its <sup>153</sup>Sm and <sup>166</sup>Ho complexes, *Eur J Med Chem* 45 (2010) 5621-5627.

C. Moura, T. Esteves, L. Gano, P. D. Raposinho, A. Paulo, I. Santos, Synthesis, characterization and biological evaluation of tricarbonyl M(I) (M = Re, <sup>99m</sup>Tc) complexes functionalized with melanin-binding pharmacophores, *New J. Chem.* 34 (2010) 2564-2578.

Harmel W. Peindy N'Dongo, Paula D. Raposinho, Célia Fernandes, Isabel Santos, Daniel Can, Paul Schmutz, Bernhard Spingler, Roger Alberto, Preparation and biological evaluation of cyclopentadienyl-based <sup>99m</sup>Tc-complexes [(Cp-R)<sup>99m</sup>Tc(CO)3] mimicking benzamides for malignant melanoma targeting, *Nucl. Med. Biol.* 37 (2010) 255-264.

B. L. Oliveira, P. Raposinho, F. Mendes, F. Figueira, I. Santos, A. Ferreira, C. Cordeiro, A. P. Freire, J. D. G. Correia, Re and Tc Tricarbonyl Complexes: From the Suppression of NO Biosynthesis in Macrophages to in vivo Targeting of Inducible Nitric Oxide Synthase, *Bioconjugate Chem.* 21 (2010) 2168–2172.

T. Esteves, C. Xavier, S. Gama, F. Mendes, P. D. Raposinho, F. Marques, A. Paulo, J. Costa Pessoa, J. Rino, G. Viola, Isabel Santos, Tricarbonyl M(I) (M = Re, <sup>99m</sup>Tc) complexes bearing acridine fluorophores: synthesis, characterization, DNA interaction studies and nuclear targeting, *Org. Biomol. Chem.* 8 (2010) 4104–4116.

Y. Liu, B. L. Oliveira, J. D. G. Correia, I. C. Santos, I. Santos, B. Spingler, R. Alberto, Syntheses of bifunctional, 2,3-diamino propionic acid based chelators as small and strong tripod ligands for the labelling of biomolecules with <sup>99m</sup>Tc, *Org. Biomol. Chem.* 8: 2829-2839 (2010).

Goreti Ribeiro Morais, Ines Felix Oliveira, Andrew J. Humphrey, Robert A. Falconer, Identification of an acetyl disulfide derivative in the synthesis of thiosialosides, *Carbohydrate Research* 345 (2010) 160–162.

Lauren B. Retzliff, Laura Heinzke, Said D. Figureoa, Samantha V. Sublett, Lixin Ma, Gary L. Sieckman, Tammy L. Rold, Isabel Santos, Timothy J. Hoffman and Charles J. Smith, “Evaluation of  $^{99m}\text{Tc}(\text{CO})_3\text{-X-Y-Bombesin}(7\text{-}14)\text{NH}_2$ ] Conjugates for Targeting Gastrin-releasing Peptide Receptors Overexpressed on Breast Carcinoma, *Anticancer Research* 30 (2010) 19-30.

M. P. C. Campello, S. Lacerda, I. C. Santos, G. A. Pereira, C. F. G. C. Geraldés, J. Kotek, P. Hermann, J. Vanek, P. Lubal, V. Kubcek, E. Toth, I. Santos, Lanthanide (III) Complexes of 4,10-Bis(phosphonomethyl)-1,4,7,10-tetraazacyclododecane-1,7-diacetic acid (trans-H6do2a2p) in Solution and in the Solid State: Structural Studies Along the Series, *Chem. Eur. J.* 16 (2010) 8446 – 8465.

P. D. Raposinho, J. D. G. Correia, M. C. Oliveira, I. Santos, MC1 receptor-targeting with radiolabeled cyclic  $\alpha$ -melanocyte stimulating hormone analogs for melanoma imaging, *Biopolymers*, 94 (2010) 820-829.

### Proceedings

M. Morais, P. D. Raposinho, M. C. Oliveira, J. D.G. Correia, I. Santos. Homobivalent  $\alpha$ -MSH Derivatives for Melanoma Imaging:  $^{99m}\text{Tc}(\text{CO})_3$ -Labeling and Biological Evaluation, Proceedings of the 31st European Peptide Symposium M. Lebl, M. Meldal, K. J. Jensen, T. Hoeg-Jensen Ed. European Peptide Society, 2010, pp 530-531.

C. Neto, M.C. Oliveira, L. Gano, F. Marques, I. Santos, T. Thiemann, Novel estradiol based metal complexes of Tc-99m for breast cancer imaging, Proceedings of the Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, U. Mazzi, W. C. Eckelman, W. A. Volkert Ed., SGEEditoriali, Padova, 2010, pp. 309-310.

C. Moura, L. Gano, P. D. Raposinho, A. Paulo, A.M. Abrantes, M. F. Botelho, I. Santos, Technetium(I)-99m tricarbonyl complexes for targeting melanotic melanoma, Proceedings of the Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, U. Mazzi, W. C. Eckelman, W. A. Volkert Ed., SGEEditoriali, Padova, 2010, pp. 331-332.

B.L. Oliveira, Y. Liu, J.D.G. Correia, I. Santos, L.Gano, B. Spingler, R. Alberto, 2,3-Diamino propionic acid based chelators for labeling biomolecules with  $^{99m}\text{Tc}(\text{I})$ , Proceedings of the Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, U. Mazzi, W. C. Eckelman, W. A. Volkert Ed., SGEEditoriali, Padova, 2010, pp. 335-336.

S. Cunha, L. Gano, C. Fernandes, A. Paulo, I. Santos,  $^{99m}\text{Tc}(\text{I})$  Cationic complexes for tumoral detection, Proceedings of the Int Symp. on Technetium and

Other Radiometals in Chemistry and Medicine, U. Mazzi, W. C. Eckelman, W. A. Volkert Ed., SGEEditoriali, Padova, 2010, pp. 391-392.

E. Palma, J. D. G. Correia, L. Gano, I. Santos, 1-Hydroxybisphosphonate-containing amino acids for radioactivity delivery, Proceedings of the Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, U. Mazzi, W. C. Eckelman, W. A. Volkert Ed., SGEEditoriali, Padova, 2010, pp. 401-402.

A. C. Santos, C. M. Matos, M. A. Silva, S. L. Perestrelo, F. J. Borges, T. Almeida, N. Ferreira, L. Gano, M. Neves, B. Oliveiros, A new technique to evaluate experimental acute oedema induced by two different drugs using giant unilamellar liposomes, Proceedings of the Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, U. Mazzi, W. C. Eckelman, W. A. Volkert Ed., SGEEditoriali, Padova, 2010, pp. 541-542.

T. Esteves, F. Marques, J. Rino, A. Paulo, C. J. Smith, I. Santos, Trifunctional tricarbonyl complexes for cell-specific and nuclear targeting, Proceedings of the Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, U. Mazzi, W. C. Eckelman, W. A. Volkert Ed., SGEEditoriali, Padova, 2010, pp. 395-396.

P. Antunes, T. Esteves, P. Raposinho, I. Santos 2010 Radiolabelled Short Neuropeptide Y Derivatives with Bifunctional Chelators for Breast Cancer; Technetium and other radiometals in chemistry and medicine Symposium Proceedings, ed. Mazzi U, Eckelman WC, Volkert WA, SGEEditoriali (Padova), pp. 539-540.

T. Tsotakos, M. Morais, J. D. G. Correia, I. Santos, M. Martins, S. Pereira, M. Pelecanou, M. Papadopoulos, I. Pirmettis, New  $^{99m}\text{Tc}(\text{CO})_3$  mannosylated dextrans bearing S-derivatized cysteine chelator, Technetium and other radiometals in chemistry and medicine Symposium Proceedings, ed. Mazzi U, Eckelman WC, Volkert WA, SGEEditoriali (Padova), pp. 69-72.

D. Can, H.P. N'Dongo, P. Schmutz, R. Alberto, P. Raposinho, I. Santos,  $[\text{CpTc}(\text{CO})_3]$  replacing phenyl rings in bioactive molecules for radiopharmaceuticals, Technetium and other radiometals in chemistry and medicine Symposium Proceedings, ed. Mazzi U, Eckelman WC, Volkert WA, SGEEditoriali (Padova), pp. 119-122.

### Communications

#### Oral

T. Esteves, S. Gama, F. Mendes, F. Marques, A. Paulo, J. Pessoa, J. Rino, C. Smith, I. Santos (2010), New  $[\text{99mTc}(\text{CO})_3]^+$ -labeled Bombesin Conjugates Bearing an Acridine Orange Moiety for Diagnosis and/or Therapy of Cancer, EPI XII- Iberian Peptide Meeting, Feb 10-12, Lisboa, Portugal.

I. Santos, Molecular Imaging: from Chemistry to Clinical Applications, February 23, 2010 Lisboa, Portugal.

- I. Santos, Target- Specific Delivery of Radioactivity for *in vivo* Molecular Imaging and Therapy, March, 23, 2010 Porto, Portugal.
- L. Gano, F. Mendes, S. Cunha, C. Fernandes, A. Paulo, I. Santos, Biological evaluation of novel  $^{99m}\text{Tc}(\text{I})$  cationic complexes as probes for tumoral detection, ESRR'10, Edinburgh, Scotland, UK, April 2010. (Q J Nucl Med Mol Imaging 54(Suppl 1) (2010) 10-11).
- A. Paulo, Radiofármacos e Medicina Nuclear: dos Estudos Funcionais à Imagiologia, VI Colóquio de Farmácia, ESTSP, Porto, Portugal, 15 May 2010 (invited).
- J. D. G. Correia, B. Oliveira, F. Mendes, P. Raposinho, I. Santos, A. Ferreira, C. Cordeiro, A. P. Freire (2010) "Nitric Oxide Synthase Targeting with  $^{99m}\text{Tc}(\text{I})/\text{Re}(\text{I})$  Complexes" ISBOMC 10, July 5-9, Bochum, Germany (invited).
- M. Morais, Paula D. Raposinho, João D. G. Correia, Isabel Santos, MC1 Receptor-Targeting Peptides Labeled with  $^{99m}\text{Tc}(\text{I})$  for Melanoma Imaging, XII Iberian Peptide Meeting, Lisboa, Portugal, 10-12 February 2010 (invited).
- M. Morais, João D. G. Correia, Isabel Santos,  $^{99m}\text{Tc}(\text{I})$ -Labelled Nanocarriers Based on Dextran for Sentinel Lymph Node Detection, VI Jornadas do Serviço de Medicina Nuclear do Hospital Garcia da Horta, Sesimbra, Portugal, 21 and 22 May 2010 (invited).
- João D. G. Correia, Preclinical Evaluation of New  $^{99m}\text{Tc}(\text{I})$ -Complexes with Amino-Bisphosphonates for the Diagnosis of Bone Metastases, VI Jornadas do Serviço de Medicina Nuclear do Hospital Garcia da Horta, Sesimbra, Portugal, 21 and 22 May 2010 (invited).
- M. Morais, João D. G. Correia, Isabel Santos, Mannosylated Dextran Derivatives labelled with fac-[M(CO)<sub>3</sub>]<sup>+</sup> (M =  $^{99m}\text{Tc}$ , Re) for Specific Targeting of Sentinel Lymph Node, 3rd Research Coordination Meeting on "Development of  $^{99m}\text{Tc}$  Radiopharmaceuticals for Sentinel Node Detection and Cancer Diagnosis", Viena, Austria, 22-26 November 2010 (invited).
- M. Morais, Paula D. Raposinho, M. C. Oliveira, João D. G. Correia, Isabel Santos, A New Thioether Bridge-Cyclized  $\alpha$ -MSH Derivative: Synthesis, Labelling with  $^{99m}\text{Tc}(\text{I})$  and Biological Evaluation, 2<sup>nd</sup> National Meeting on Medicinal Chemistry, Coimbra, Portugal, 28-30 November 2010 (invited).
- I. S. Moreira, B. L. Oliveira, I. Santos, P. A. Fernandes, M. J. Ramos, J. D. G. Correia, Docking Studies and Molecular Dynamics Simulations of Re(I) Complexes Containing L-Arg Derivatives for iNOS Targeting, 2<sup>nd</sup> National Meeting on Medicinal Chemistry, Coimbra, Portugal, 28-30 November 2010 (invited lecture).
- I. Santos, From Chemistry to Clinical Applications in the Molecular Imaging Era, 2<sup>nd</sup> National Meeting on Medicinal Chemistry, Coimbra, Portugal, 28-30 November 2010 (invited lecture).
- C. Fernandes and I. Santos, Molecular Imaging of EGFR Positive Tumors, IPATIMUP, 28 April 2010 (invited).
- ### Posters
- S. Chaves, S. Marques, L. Areias, A. Capelo, M. A. Esteves, L. Gano, M. A. Santos, A tripodal hydroxypyrimidinone – based compound for iron and aluminium decorporation, ISMEC2010, Bilbao, Spain, June 2010.
- M.P.C. Campello, S. Lacerda, I. C. Santos, G.A. Pereira, C.F.G.C. Geraldes, J. Kotek, P. Hermann, J. Vaněk, P. Lubal, V. Kubiček, É. Tóth, I. Santos, Lanthanide(III) Complexes of 4,10-bis(phosphonomethyl)-1,4,7,10-tetraazacyclododecane -1,7-diacetic acid, trans-H<sub>6</sub>do2a2p: Synthesis, Structural Studies, Labelling and Biological Evaluation, *Cost Action D38 Annual Meeting*, 20-22<sup>th</sup> June, Thessaloniki, Greece.
- C. Moura, L. Gano, P. D. Raposinho, A. Paulo, I. Santos,  $^{99m}\text{Tc}(\text{I})$  Tricarbonyl Complexes Containing the N-(2-Diethylaminoethyl)benzamide Structural Element for the Targeting of Melanotic Melanoma, CIÊNCIA 2010 – Encontro com a Ciência e a Tecnologia em Portugal, Centro de Congressos de Lisboa, Junqueira, 4-7 de Julho de 2010.
- C. Neto, M.C. Oliveira, L. Gano, F. Marques, I. Santos, G.R. Morais, T. Yasuda, T. Thiemann, F. Botelho, C.F. Oliveira, Novel Radioiodinated estradiols as potential imaging agents for estrogen positive breast tumours, CIÊNCIA 2010 – Encontro com a Ciência e a Tecnologia em Portugal, Centro de Congressos de Lisboa, Junqueira, 4-7 de Julho de 2010.
- T. Esteves, S. Gama, F. Mendes, F. Marques, A. Paulo, J. Pessoa, J. Rino, I. Santos, Rhenium Tricarbonyl Complexes Bearing an Acridine Orange Moiety: Synthesis and DNA Interaction Studies, CIÊNCIA 2010 – Encontro com a Ciência e a Tecnologia em Portugal, Centro de Congressos de Lisboa, Junqueira, 4-7 de Julho de 2010.
- A. C. Santos, C. M. Matos, M. A. Silva, S. L. Perestrelo, F. J. Borges, B. Oliveiros, T. Almeida, L. Gano, M. Neves, N. Ferreira, Experimental non-cardiogenic acute pulmonary oedema - evaluation using a new technique using giant unilamellar liposomes, The 37th Annual Meeting and Exposition of the Controlled Release Society: Personalized Medicines and Products for the Next Generation, Oregon, Portland, U.S.A, July 2010
- M. Batista, M. P. C. Campello, A. Paulo, L. Gano, I. Santos, Gallium complexes with a new DOTA-like chelator bearing a thiol pendant arm: synthesis, characterization and biological studies, Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, Bressanone, Italy, Sept. 2010. (Nucl. Med. Biol. 37 (2010) 680-681).

- C. Neto, M.C. Oliveira, L. Gano, F. Marques, I. Santos, T. Thiemann, Novel estradiol based metal complexes of Tc-99m for breast cancer imaging, Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, Bressanone, Italy, Sept. 2010. (Nucl. Med. Biol. 37 (2010) 699-700.
- C. Moura, L. Gano, P. D. Raposinho, A. Paulo, A.M. Abrantes, M. F. Botelho, I. Santos, Technetium(I)-99m tricarbonyl complexes for targeting melanotic melanoma, Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, Bressanone, Italy, Sept. 2010. (Nucl. Med. Biol. 37 (2010) 703.
- B.L. Oliveira, Y. Liu, J.D.G. Correia, I. Santos, L.Gano, B. Spingler, R. Alberto, 2,3-Diamino propionic acid based chelators for labeling biomolecules with 99mTc(I), Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, Bressanone, Italy, Sept. 2010. Nucl. Med. Biol. 37 (2010) 704.
- F. Silva, M. Morais, P. D. Raposinho, M. P. C. Campello, J. D.G. Correia, A. Paulo, I. Santos, "-" PEGylated DOTA- $\alpha$ -MSH analogues for in vivo targeting of melanoma, *Nuclear Medicine and Biology* 37 (2010) 694.
- S. Cunha, L. Gano, C. Fernandes, A. Paulo, I. Santos, 99mTc(I) Cationic complexes for tumoral detection, Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, Bressanone, Italy, Sept. 2010. (Nucl. Med. Biol. 37 (2010) 709-710.
- E. Palma, J. D. G. Correia, L. Gano, I. Santos, 1-Hydroxybisphosphonate-containing amino acids for radioactivity delivery, Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, Bressanone, Italy, Sept. 2010. (Nucl. Med. Biol. 37 (2010) 711.
- A.C. Santos, C. M. Matos, M. A. Silva, S. L. Perestrelo, F. J. Borges, T. Almeida, N. Ferreira, L. Gano, M. Neves, B. Oliveiros, Evaluation of acute non-cardiogenic experimental pulmonary oedema using giant unilamellar liposomes, Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, Bressanone, Italy, Sept. 2010. (Nucl. Med. Biol. 37 (2010) 721.
- A.C. Santos, C. M. Matos, M. A. Silva, S. L. Perestrelo, F. J. Borges, T. Almeida, N. Ferreira, L. Gano, M. Neves, B. Oliveiros, A new technique to evaluate experimental acute pulmonary oedema using giant unilamellar liposomes, Int Symp. on Technetium and Other Radiometals in Chemistry and Medicine, Bressanone, Italy, Sept. 2010. (Nucl. Med. Biol. 37 (2010) 721.
- F. Mendes, L. Gano, C. Fernandes, A. Paulo, I. Santos, Evaluation of <sup>99m</sup>Tc-TMEOP as probe for functional monitoring of multidrug resistance, EANM'10, Vienna, Austria, Oct. 2010. (Eur. J. Nucl. Med. Mol. Imaging (2010) 37 (Suppl 2):S358 (P129))
- F. Lucena, A. M. Abrantes, J. Rio, L. Gano, F. Botelho, A. I. Santos, Radiochemical, biological and dosimetric evaluation of <sup>99m</sup>Tc-LBG for use in colon transit scintigraphy, EANM'10, Vienna, Austria, Oct. 2010.
- Eur. J. Nucl. Med. Mol. Imaging (2010) 37 (Suppl 2):S359 (P134).
- A. C. Santos, C. M. Matos, M. A. Silva, S. L. Perestrelo, F. J. Borges, B. Oliveiros, T. Almeida, L. Gano, M. Neves, N. Ferreira, Thermolabile giant unilamellar liposomes in the evaluation of experimental non-cardiogenic acute pulmonary oedema, EANM'10, Vienna, Austria, Oct. 2010. Eur. J. Nucl. Med. Mol. Imaging (2010) 37 (Suppl 2):S362 (P148)
- T. Kniess, C. Oliveira, M. Kuchar, L. Gano, I. Santos, J. Steinbach, Synthesis and first radiopharmaceutical investigation of 5-[<sup>125</sup>I]Iodo-SU11248, a potential radiotracer for imaging VEGFR, EANM'10, Vienna, Austria, Oct. 2010. Eur. J. Nucl. Med. Mol. Imaging (2010) 37 (Suppl 2):S364 (P158)
- C. Neto, M.C. Oliveira, C. Fernandes, L. Gano, F. Mendes, T. Kniess, I. Santos. Radiosynthesis and biological evaluation of novel receptor tyrosine kinase inhibitors for in vivo targeting of EGFR, 2nd National Meeting on Medicinal Chemistry, Coimbra, Nov. 2010.
- A. C. Santos, C. M. Matos, B. Oliveiros, T. Almeida, L. Gano, M. Neves, N. Ferreira, Thermosensitive giant unilamellar liposomes to evaluate experimental acute pulmonary oedema – comparison with mri studies, II Annual meeting of IBILI, Coimbra, Dec. 2010.
- S. Gama, F. Mendes, F. Marques, I. C. Santos, I. Correia, J. C. Pessoa, I. Santos, A. Paulo, Synthesis, characterization, DNA cleavage activity and cytotoxicity of copper(II) complexes anchored by tridentate pyrazol-based ligands, EUROBIC10, June 22-26, 2010, Thessaloniki, Greece
- C. Francisco, S. Gama, F. Mendes, F. Marques, A. Paulo, I. C. Santos, I. Santos, M. Ravera, E. Gabano, D. Osella, New Pt(II) Complexes with Bidentate and Tridentate Pyrazolyl-containing Chelators: Synthesis, Structural Studies and In Vitro Antitumor Activity, EUROBIC10, June 22-26, 2010, Thessaloniki, Greece.
- M. Morais, João D. G. Correia, Isabel Santos, 99mTc(I) Nanocarrier as Versatile Platform for Sentinel Lymph Node Detection, CIÊNCIA 2010 – Encontro com a Ciência e a Tecnologia em Portugal, Centro de Congressos de Lisboa, Junqueira, 4-7 de Julho de 2010.

#### Other Reports

- M. Morais, Mannosylated Dextran Derivatives labelled with fac-[M(CO)3]+ (M = 99mTc, Re) for Specific Targeting of Sentinel Lymph Node, Curso de Formação Avançada em Química e Bioquímica, Faculdade de Ciências da Universidade de Lisboa, July 19, Lisboa, Portugal (2010).

- M. Morais, João D. G. Correia, Isabel Santos, Mannosylated Dextran Derivatives labelled with fac-[M(CO)<sub>3</sub>]<sup>+</sup> (M = <sup>99m</sup>Tc, Re) for Specific Targeting of Sentinel Lymph Node, Report of the 3rd Research Coordination Meeting of CRP, 33-34, (2010).
- F. Silva, Targeted Nanoradiopharmaceuticals for Cancer Diagnosis and/or Therapy, Curso de Formação Avançada em Química e Bioquímica, Faculdade de Ciências da Universidade de Lisboa, July 20, Lisboa, Portugal (2010).
- S. Cunha, Avaliação do potencial clínico de novos ligandos para o receptor estrogénico em diagnóstico e terapia de tumores da mama, Curso de Formação Avançada em Química e Bioquímica, Faculdade de Ciências da Universidade de Lisboa, July 20, Lisboa, Portugal (2010).
- R. Gomes, 2010, Metabolização de radiofármacos ao nível do citocromo P450, tese de estágio da disciplina Medicina Nuclear II da licenciatura em Medicina Nuclear, ESTeSL, supervisor Lurdes Gano.
- A. Neves, 2010, Análogos da alpha-MSH para o diagnóstico e terapia do melanoma, tese de estágio da disciplina Medicina Nuclear II da licenciatura em Medicina Nuclear da ESTeSL, supervisor Paula D. Raposinho.
- M. Antunes, 2010, Modelos animais em imagem pré-clínica, tese de estágio da disciplina Medicina Nuclear II da licenciatura em Medicina Nuclear, ESTeSL, supervisor Lurdes Gano.
- H. Batista, 2010, Péptidos análogos da bombesina no diagnóstico e terapia do adenocarcinoma da prostata, tese de estágio da disciplina Medicina Nuclear II da licenciatura em Medicina Nuclear, ESTeSL, supervisor Paula D. Raposinho.

## Solid State

### Journals

- M. Avdeev, V.V. Kharton, E.V. Tsipis, Geometric parameterization of the YBaCo<sub>4</sub>O<sub>7</sub> structure type: Implications for stability of the hexagonal form and oxygen uptake, *Journal of Solid State Chemistry*, 183, 2506-2509 (2010).
- D. Belo, M. Almeida, Transition Metal Complexes Based on Thiophene-Dithiolene Ligands, Invited Review to the special issue on "Dithiolenes and Non-Innocent Redox Active Ligands", *Coordination Chemistry Reviews*, 254, 1479-1492 (2010).
- G. Bruno, M. Almeida, F. Artizzu, J.C. Dias, M.L. Mercuri, L. Pilia, C. Rovira, X. Ribas, A. Serpe, P. Deplano, Innocence and Noninnocence of the ligands in bis(pyrazine-2,3-dithiolate and -diselonate) d<sup>8</sup>-metal complexes. A theoretical and experimental study for the Cu(III), Au(III) and Ni(II) cases, *Dalton Transactions*, 39 4566 – 4574 (2010).
- M. Clemente-León, E. Coronado, M. López-Jordà, G.M. Espallargas, A.S. Portillo, J.C. Waerenborgh Multifunctional magnetic materials obtained by insertion of a spin crossover Fe<sup>III</sup> complex into bimetallic oxalate-based ferromagnets, *Chem. Eur. J.* 16 2207-2219 (2010).
- M. Dias, P.A. Carvalho, O. Sologub, L.C.J. Pereira, I.C. Santos, A.P. Gonçalves, Studies on the new UFe<sub>2</sub>B<sub>6</sub> phase, *J. Alloys Compd.* 492 L13-L15 (2010).
- M. Dias, P.A. Carvalho, A.P. Dias, M. Bohn, N. Franco, O. Tougait, H. Noël, A.P. Gonçalves, Cascade of peritectic reactions in the B-Fe-U system, *J. Phase Equilibria and Diffusion*, 31 104-112 (2010).
- S.I.G. Dias, S. Rabaça, I.C. Santos, J.D. Wallis, M. Almeida, A unique co-crystallisation motif for bis(4-pyridyl)acetylene involving S...spC interactions with a fused 1,3-dithiole ring, *Cryst. Eng. Comm.*, 12, 3397-3400 (2010).
- N. Drichko, S. Kaiser, R. Shewmon, J. Eckstein, D. Wu, M. Dressel, M. Matos, R.T. Henriques, M. Almeida, Infrared investigations of the one-dimensional organic conductors (perylene)<sub>2</sub>M(mnt)<sub>2</sub>, M = Au, Pt, *European Physics Journal B*, 78, 283–289 (2010).
- A.P. Gonçalves, E.B. Lopes, O. Rouleau, C. Godart, Conducting glasses as new potential thermoelectric materials: the Cu-Ge-Te case, *J. Mater. Chem.*, 20 1516-1521 (2010).
- V.V. Kharton, M.V. Patrakeev, E.V. Tsipis, M. Avdeev, E.N. Naumovich, P.V. Anikina, J.C. Waerenborgh, Oxygen nonstoichiometry, chemical expansion, mixed conductivity, and anodic behavior of Mo-substituted Sr<sub>3</sub>Fe<sub>2</sub>O<sub>7-δ</sub>, *Solid State Ionics* 181, 1052-1063 (2010).
- A.M. Madalan, C. Réthoré, M. Fourmigué, E. Canadell, E.B. Lopes, M. Almeida, P. Auban-senzier, N. Avarvari, Order versus Disorder in Chiral Tetrathiafulvalene-Oxazolines Radical Cation Salts: Structural, Theoretical Investigations and Physical Properties, *Chemistry a European Journal* 16, 528-537 (2010).
- S. Rabaça, M. Almeida, Dithiolene Complexes Containing N Coordinating Groups and the Corresponding TTF Donors, Invited Review to the special issue on "Dithiolenes and Non-Innocent Redox Active Ligands", *Coordination Chemistry Reviews*, 254, 1493-1508 (2010).
- O. Sologub, P. Rogl, E. Bauer, G. Hilscher, H. Michor, E. Royanian, G. Giester, A. P. Goncalves, The system uranium-palladium-boron with U<sub>2.5</sub>Pd<sub>20.5</sub>B<sub>6</sub>, a new heavy fermion compound, *J. Phys.: Condens. Matter*, 22 125601-125609 (2010).
- Yu. Verbovytsky, A.P. Gonçalves, The Yb-Zn-Ga system: partial isothermal section at 400°C with 0–33.3 at. %, *Intermetallics*, 18 655-665 (2010).

Yu. Verbovyskiy, L.C. Alves, A.P. Gonçalves, Phase relations of the Eu-Zn-Al system at 400 degrees C from 0 to 33.3 at.% Eu, *J. Alloys Compd.*, 495 39-44 (2010).

Yu. Verbovyskiy, D. Kaczorowski, A.P. Gonçalves, Novel  $RZn_2Ga_2$  ( $R = La, Ce, Pr, Nd, Sm$ ) intermetallic compounds with  $BaAl_4$ -type structure, *J. Alloys Compd.* 508 20-23 (2010).

J.C. Waerenborgh, S. Rabaça, E.B. Lopes, M. Almeida, A. Kobayashi, B. Zhou, J.S. Brooks, Mössbauer spectroscopy study of the “mysterious” magnetic transition in  $\lambda$ -(BETS) $_2$ FeCl $_4$ , *Phys. Rev. B, Rapid Commun.*, 81, 060413(R) (2010).

R.F.V.V. Jaimes, M.L.C.A. Afonso, S.O Rogero, S.M. leite agostinho, C.A Barbosa, New material for orthopedic implants: Electrochemical study of nickel free P558 stainless steel in minimum essential medium. *Materials Letters*, 64(13), 1476-1479(2010).

### Conference Proceedings

A.P. Gonçalves, M.S. Henriques, J.C. Waerenborgh, L.C.J Pereira, E.B. Lopes, M. Almeida, S. Mašková, L. Havela, A. Shick, Z. Arnold, D. Berthebaud, O. Tougait, H. Noël, Peculiarities of U-based Laves phases, *IOP Conf. Ser. Mater. Sci. Eng.*, 9 012090 (2010).

### Communications

E.B. Lopes, MS Henriques, D Berthebaud, L Havela, E Šantavá, JC Waerenborgh, LCJ Pereira, O Tougait, AP Gonçalves, E Laukhina, V Lebedev, V Laukhin, AP del Pino, D.Belo, M Almeida, J Veciana, C Rovira, Low temperature transport properties of intermetallic and organic film compounds, *Workshop on Low temperature and High Magnetic Field Techniques in Solid State Research*, ITN, Sacavém, Portugal, 8th November 2010, invited oral.

M. Almeida, J.S. Brooks, CDW and Superconducting Ground States in Quasi-1D Systems; The (Per) $_2$ M(mnt) $_2$  Salts, *Quantum coherence and correlations in condensed-matter and cold-atom systems*, Évora, Portugal, 11-15 October 2010, Invited oral.

M.L. Afonso, M. Matos, R.A.L. Silva, Q. Ferreira, M. Almeida, Electrocrystallisation of (Perylene) $_2$  [M(mnt) $_2$ ] salts, *XII Iberic Meeting of Electrochemistry & XVI Meeting of the Portuguese Electrochemical Society*, Lisboa, 8-11 September 2010, oral.

A.P. Gonçalves, M.S. Henriques, J.C. Waerenborgh, L.C.J. Pereira, E.B. Lopes, M. Almeida, L. Havela, O. Tougait, H. Noël, Singularities of U-based intermetallics: the U $_2$ Fe $_3$ Ge case, *Encontro Nacional de Física da Matéria Condensada*, IST, Lisboa, Portugal, 18-19 Fevereiro 2010, oral.

A.P. Gonçalves, D. Gnida, P. Estrela, A. de Visser, E.B. Lopes, I. Catarino, G. Bonfait, M. Godinho, M. Almeida, D. Kaczorowski, Magnetic ordering in the heavy-fermion compound UZn $_{12}$ , *40<sup>emes</sup> Journées des Actinides & 2nd Workshop on Actinide Targets*,

CERN, Genève, Switzerland, March 27 – April 1 2010, oral.

A.P. Gonçalves, M.S. Henriques, E.B. Lopes, L. Havela, O. Tougait, J.C. Griveau, Unusual magnetism in U $_2$ Fe $_3$ Ge, *9<sup>th</sup> Prague Colloquium on f-electrons systems*, Prague, Czech Republic, 31 May-3 June 2010, oral.

A.P. Gonçalves, E. B. Lopes, L. M. Ferreira, G. Delaizir, O. Rouleau, C. Godart, Chalcogenide glasses as prospective thermoelectric materials, *ICT2010*, Shanghai, China, May 30 - June 3, 2010, oral.

A.P. Gonçalves, E.B. Lopes, L.M. Ferreira, G. Delaizir, O. Rouleau and C. Godart, Chalcogenide glasses as prospective materials for thermoelectric applications, *17<sup>th</sup> International Conference on Solid Compounds of Transition Elements*, Annecy, France, September 5-10, 2010, oral.

A.P. Gonçalves, E.B. Lopes, L.M. Ferreira, G. Delaizir, O. Rouleau, C. Godart, Recent advances on thermoelectric glasses, *Advanced Research Workshop - New materials for thermoelectric applications: theory and experiment*, Hvar, Croatia, October 2-7, 2010 invited oral.

L. Havela, K. Miliyanchuk, A.P. Gonçalves, J.C. Waerenborgh, L.C.J. Pereira, P. Gaczynski, E.B. Lopes, J. Pešicka, A. Adamska, T. Gouder, Increase of  $T_C$  in splat-cooled and sputter deposited UFe $_{2+x}$ , *16<sup>th</sup> Workshop on Magnetism and Intermetallics*, Fac Ciências Univ. Porto, Portugal, 4-6 March 2010, invited oral.

M.S. Henriques, D. Berthebaud, O. Tougait, H. Noel, A.P Gonçalves, The study of the U-Fe-Ge system at 900°C, *XVI Workshop on Magnetism and Intermetallics*, Porto, Portugal, 4-5 March 2010, oral.

M.S. Henriques, Low temperature properties and sample preparation of U/Ge intermetallics, *Workshop on Low Temperature and High magnetic Field Techniques in Solid State Research*, ITN, Sacavém, Portugal, 8 November 2010, invited oral.

S. Rabaça, Bisdithiolene Complexes Substituted with N Coordinating Groups, *COST D35, 5th Working Group 0011-05 Meeting “Multifunctional and Switchable Molecular Materials: Design, Synthesis, Characterization and Preparation as Crystals and Thin Films”*, Angers, France, 21-23 June 2010, oral.

A.J. Silvestre, L.C.J. Pereira, M.R. Nunes, O.C. Monteiro, Ferromagnetic order in aged Co-doped TiO $_2$  anatase nanopowders, *3<sup>rd</sup> International Conference on Nano Materials – ANM2010*, Agadir, Morocco, 12-15 September 2010, oral.

A.J. Silvestre, L.C.J. Pereira, M.R. Nunes, O.C. Monteiro, Experimental evidence for the preservation of ferromagnetic order in aged Co-doped TiO $_2$  anatase nanopowders, *7<sup>th</sup> Ibero-American Congress on Sensors – IBERSENSOR 2010*, Lisboa, Portugal, 9-11 November 2010, oral.

- E.V. Tsipis, V.A. Kolotygin, A.A. Yaremchenko, E.N. Naumovich, A.L. Shaula, V.V. Kharton, Electrode behavior in intermediate-temperature SOFCs with lanthanum gallate- and silicate-based electrolytes, *Int. Conference "Solid Oxide Fuel Cells and power plants on their basis"*, Chernogolovka, Russia, 16-18 June 2010, invited oral.
- S. Oliveira, S. Rabaça, S.I.G. Dias, I.C. Santos, R.T. Henriques, M. Almeida, Bisdithiolene Complexes Substituted with N Coordinating Group, *3rd European School on Molecular Nanoscience (ESMolNa2010)* in Miraflores de la Sierra, Madrid, Spain, 24-29 October, 2010, oral.
- L.C.J. Pereira, Trends in Molecular Magnetism at ITN, *Workshop on Low temperature and High Magnetic Field Techniques in Solid State Research*, ITN, Sacavém, Portugal, 8<sup>th</sup> November 2010, invited oral.
- R.A.L. Silva, M.L. Afonso, M. Matos, D. Belo, M. Almeida, Electrocrystallisation of (DT-TTF)<sub>2</sub> [M(mnt)<sub>2</sub>] on microelectrodes, *XII Iberic Meeting of Electrochemistry & XVI Meeting of the Portuguese Electrochemical Society*, Lisboa, 8-11 September 2010, oral.
- Yu. Verbovytsky, L.C. Alves, A.P. Gonçalves, Interaction of the components in the Eu-Zn-Al system at 400°C, *16<sup>th</sup> Workshop on Magnetism and Intermetallics*, IFIMUP-IN and Departamento de Física e Astronomia, Universidade do Porto, Porto, Portugal, 4 – 5 March, 2010, oral.
- J.C. Waerenborgh, E. Tsipis, Ordre de charge dans les ferrites à conduction mixte de structure type perovskite, *Groupe Francophone de Spectrométrie Mössbauer*, Lisboa, Portugal, 20-21 May 2010, invited oral.
- J.C. Waerenborgh, Mössbauer investigation of magnetic ground states, *Workshop on Low temperature and High Magnetic Field Techniques in Solid State Research*, ITN, Sacavém, Portugal, 8<sup>th</sup> November 2010, invited oral.
- A.A. Yaremchenko, V.V. Kharton, V.A. Kolotygin, M.V. Patrakeeve, E.V. Tsipis, J. Waerenborgh, P.M. Vilarinho, Mixed conductivity, electrochemical properties and stability of Fe-substituted (La,Sr)(Cr,Mg)O<sub>3-δ</sub>, *12<sup>th</sup> International Conference on Electroceramics and their Applications "Electroceramics XII"*, Trondheim, Norway, 13-16 June 2010, oral.
- A.M. Adamska, L. Havela, A. Błachowski, K. Ruebenbauer, N.-T.H. Kim-Ngan, J.C. Waerenborgh, Magnetic properties of UFeGe and UFeGeH<sub>x</sub> studied by <sup>57</sup>Fe Mössbauer spectroscopy, *JEMS 2010 Joint European Magnetic Symposia*, Kraków, Poland, 23-28 August 2010, poster.
- M. Dias, I.C. Santos, P.A. Carvalho, M. Bohn, O. Tougait, H. Noël, A.P. Gonçalves, Considerations on the U-Fe-B ternary system, *40<sup>èmes</sup> Journées des Actinides & 2nd Workshop on Actinide Targets*, CERN, Geneva, Switzerland, March 27 – April 1, 2010, poster.
- M.S. Henriques, D. Berthebaud, A. Lignie, O. Tougait, H. Noël, A.C. Ferro, A.P. Gonçalves, Isothermal section of the U-Fe-Ge ternary system at 900°C, *40<sup>èmes</sup> Journées des Actinides and 2<sup>nd</sup> Workshop on Actinide Targets*, CERN, Geneva, Switzerland, 27 March-1 April 2010, poster.
- M.S. Henriques, L. Havela, E. Šantavá, J.C. Waerenborgh, E.B. Lopes, L.C.J. Pereira, O. Tougait, A.P. Gonçalves, U<sub>2</sub>Fe<sub>3</sub>Ge: a new Hill rule exception?, *9<sup>th</sup> Prague Colloquium on f-electron systems*, Prague, Czech Republic, 31<sup>st</sup> May – 3<sup>rd</sup> June 2010, poster.
- M.S. Henriques, A.C. Ferro, O. Tougait, H. Noël, Study of the isothermal system U-Fe-Sb at 700°C, *17<sup>th</sup> International Conference on Solid Compounds of Transition Elements*, Annecy, France, 5-10 September 2010, poster.
- V.V. Kharton, A.V. Kovalevsky, M.V. Patrakeeve, E.V. Tsipis, A.P. Viskup, V.A. Kolotygin, A.L. Shaula, J.C. Waerenborgh, Oxygen nonstoichiometry and transport properties of Ln<sub>0.5</sub>A<sub>0.5</sub>FeO<sub>3-δ</sub> (Ln = La-Sm, A = Sr, Ba): effects of cation size, *10th Conference "Fundamental Problems of Solid State Ionics"*, Chernogolovka, Russia, 14-16 June 2010, poster.
- V.A. Kolotygin, E.V. Tsipis, A.L. Shaula, J.R. Frade, E.N. Naumovich, V.V. Kharton, Transport and electrode properties of perovskite-type (La<sub>0.75-x</sub>Sr<sub>0.25+x</sub>)<sub>0.95</sub>Mn<sub>0.5</sub>Cr<sub>0.5-x</sub>Ti<sub>x</sub>O<sub>3-δ</sub>, *Int. Conference "Solid Oxide Fuel Cells and power plants on their basis"*, Chernogolovka, Russia, 16-18 June 2010, poster.
- E.B. Lopes, A.P. Gonçalves, O. Rouleau, C. Godart, The search for new materials for thermoelectrical applications, *Encontro Nacional 2010 de Física da Matéria Condensada*, IST, Lisbon, 18-19 February 2010, poster.
- A. Magalhães, M. Ramos Silva, J.A. Silva, J.F. Abílio N. Sobral, L.C.J. Pereira, Structural and Magnetic properties of a bromopicolinato-copper coordination compound, *The first North African Crystallographic Conference NACC-1*, Univ. Hassan II Mohammedia, Casablanca, Morocco, 23-26 November 2010, poster.
- M.R. Nunes, O.C. Monteiro, L.C.J. Pereira, A.J. Silvestre, A new chemical route to synthesise Co-doped SnO<sub>2</sub> nanocrystalline particles, *3<sup>rd</sup> International Conference on Nano Materials – ANM2010*, Agadir, Morocco, 12-15 September 2010, poster.
- M.R. Nunes, O.C. Monteiro, L.C.J. Pereira, A.J. Silvestre, A new chemical route for co-doped (Co, M) TiO<sub>2</sub> (M=Re, Ru) nanoparticles synthesis, *5<sup>th</sup> International Conference on Surfaces, Coatings and Nanostructured Materials NANOSMAT-5*, Reims, França, 19-21 October 2010, poster.
- M. Ramos Silva, A. Pereira Magalhães, C. Yustel, M. Ghadermazi, F. Faizi, E. Motyeian, L.C.J. Pereira, Crystal structure and magnetic properties of a polymeric pyrazindicarboxylato-copper(II) compound, *The first North African Crystallographic Conference NACC-1*, Univ. Hassan II Mohammedia, Casablanca, Morocco, 23-26 November 2010, poster.



## PUBLICATIONS

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- A.J. Silvestre, L.C.J. Pereira, M.R. Nunes, O.C. Monteiro, Long-range ferromagnetic order in Co-doped TiO<sub>2</sub> anatase nanopowders, *4<sup>th</sup> Seeheim Conference on Magnetism SCM2010*, Frankfurt, Germany, 28<sup>th</sup> March-1<sup>st</sup> April 2010, poster.
- E. Tsipis, E. Naumovich, M. Patrakeev, I. Marozau, A. Yaremchenko, J.C. Waerenborgh, V. Kharton, Oxygen deficiency, vacancy ordering and surface-limited ionic transport in (La,Sr)CoO<sub>3-δ</sub>, *10th Conference "Fundamental Problems of Solid State Ionics"*, Chernogolovka, Russia, 14-16 June 2010, poster.
- Yu. Verbovytsky, A.P. Gonçalves, Crystallographic study of new phases from the U-Zn-Al ternary system, *40<sup>èmes</sup> Journées des Actinides & 2nd Workshop on Actinide Targets*, CERN, Geneva, Switzerland, March 27 – April 1, 2010, poster.
- Yu. Verbovytsky, D. Kaczorowski, A.P. Gonçalves, New RZn<sub>2</sub>Ga<sub>2</sub> (R=La, Ce, Pr, Nd, Sm) intermetallic compounds with BaAl<sub>4</sub> structure type, *XI International Conference on Crystal Chemistry of Intermetallic Compounds*, Lviv, Ukraine, May 30 – June 2, 2010, poster.
- Yu. Verbovytsky, A.P. Gonçalves, On the crystal structures of new ternary phases from the Eu-Zn-T (T = Ga, Al) systems, *ISPCS'10 – XVI<sup>th</sup> International Seminar on Physics and Chemistry of Solids*, Lviv, Ukraine, June 6-9, 2010, poster.