

Education, Training & Conference Organization



Reactor

Graduation and Post-graduation teaching

N. P. Barradas, Co-professor of “Radioquímica: Fundamentos e Técnicas”, M.Sc. in Química Inorgânica Biomédica - Aplicações em Diagnóstico e Terapia, Faculdade de Ciências, Univ. Lisboa

J. G. Marques, Co-professor of “Radioquímica: Fundamentos e Técnicas”, M.Sc. in Química Inorgânica Biomédica - Aplicações em Diagnóstico e Terapia, Faculdade de Ciências, Univ. Lisboa

Conference organisation

M.C. Freitas, chair organizer, 4th International k0-users Workshop, 11-14 Sep., Funchal, Portugal.

N.P. Barradas, Co-organization of Workshop on Nanomaterials for Applications in Devices, 18 April, ITN, Portugal.

Training courses

M.C. Freitas, IAEA fellowship training of Ms. Elena Ermakova (C6/RUS/04014) for 4.5 months.

M.C. Freitas, IAEA scientific visit of Dr. Zbigniew Samczynski (POL/05031V) for 2 weeks.

Ciência Viva

A.R. Ramos, supervisor of João Guilherme Louçano Domingues Gomes, *Ciência Viva*, 18 - 26 July 2005: “Fabricação e teste de detectores de neutrões”.

A.R. Ramos, supervisor of Sílvia Craveiro Gomes, *Ciência Viva*, 18 - 26 July 2005: “Fabricação e teste de detectores de neutrões”.

Jury membership

J.G. Marques, Estágio Profissionalizante da licenciatura em Engenharia Física, Sónia Silveira Dias, 4 January 2005, FCUL.

J.G. Marques, for MSc in Engenharia Física, Pedro Carmona Marques, 14 Jul. 2005, FCUL.

N.P. Barradas, External examiner, M.Sc., O. Adegbite, 2005, University of Cape Town.

Radiological Protection and Nuclear Safety

Graduation and post-graduation teaching

I.Paiva, “Radiological Protection and Radioactive Waste Management”, Master Course on Biomedical Inorganic Chemistry: Diagnostic and Therapeutical Applications (ITN/QUIMICA/FCUL), 2004-2005

R. Trindade, “Radiological Protection and Radioactive Waste Management”, Master Course on Biomedical Inorganic Chemistry: Diagnostic and Therapeutical Applications (ITN/QUIMICA/FCUL) 2004-2005

I.Paiva, “Radiological Protection and Radioactive Waste Management”, Master Course on Safety and Radiological Protection (ITN/DPRSN/IST) 2004-2006

R. Trindade, “Radiological Protection and Radioactive Waste Management”, Master Course on Safety and Radiological Protection (ITN/DPRSN/IST). 2004-2006

M.J. Madruga. Teaching of “A Aplicação de Radioisótopos como Traçadores” to the MSc Course on Applied Analytical Chemistry, Faculdade de Ciências da Universidade de Lisboa, Departamento de Química e Bioquímica, Jun. 2005.

M.J. Reis. Teaching of “Environmental Radiological Protection” to the MSc Course on Dosimetry and

Radiological Protection, organized by DPRSN/ITN and IST (18 hours)

N. R. Pinhão “Measurement and Data Treatment” short course for technicians. ITN, Sep. 2005

L. Silva “Detection and Measurement of Ionizing Radiations”, course for a private company

C. Oliveira, invited professor, IST-Technical University of Lisbon, Physics Department, MSc Course in Safety and Radiological Protection., Disciplines: “Dosimetry”, (1^o Semester).

C. Oliveira, Invited Coordinator Professor at *School of Health Technologies of Lisbon*, Disciplines: Applied Physics”, (1^o Semester) and “Biophysics”, (1^o Semester).

Lectures given by ITN staff

M.J. Madruga. *Radioactividade Natural e Artificial* to FCT/EURATOM fellows, ITN, February.

M.J. Madruga. *Artigo 35 e 36 EURATOM. Monitorização Radiológica Ambiental*. ITN, June.

M.J. Reis. *Radioactividade Natural*, Escola Secundária de Monserrate, Viana do Castelo, April.

M.J. Reis. *Radioactividade Natural e Artificial*, Course of Introduction to Radiological Protection, ITN, November.

R. Trindade, *Training Course on Radiological Protection for ADR drivers* Associação Nacional dos Transportadores Públicos Rodoviários de Mercadorias, Lisboa, February.

L.Portugal, *Introduction to Radiological Protection for Customs Workers* ITN, Sacavém, November.

R.Trindade. *Assistance and Protection Course for First Responders of Portuguese Speaking Countries*, INETI, Lisboa, May.

R.Trindade, *Introduction to Radiological Protection for Radiological Protection Technical Teams of ITN*, Sacavém November.

L.Portugal, *Introduction to Radiological Protection for Radiological Protection Technical Teams of ITN*, Sacavém, November.

I.Paiva, *Introduction to Radiological Protection for Radiological Protection Technical Teams of ITN*, Sacavém, November.

R.Trindade, *Safety and Radiological Protection Course for Troxler' Users*, Sacavém, November.

I.Paiva, *Medical Wastes Management*, organized by Ordem dos Médicos, November.

R.Trindade, *Medical Wastes Management*, organized by Ordem dos Médicos, November.

J.G. Alves, *Thermoluminescence: Materials, Methods and Applications*, MSc on Radiation Protection, Instituto Superior Técnico, UTL, 14 and 21 July.

Course organisation

Training Course on Radiation Protection, 12-19 May 2005, ITN, Sacavém.

M.B. Martins. *Biological Effects of Ionising Radiations*.

Course on Radiation Protection for ITN workers, 14-18 Nov. 2005, ITN, Sacavém.

J.G. Alves. *Radiation Dosimetry*.

Conference organisation

M. Reis, C. Faísca, P. Duarte, *3th National Journeys on Radon and Natural Radioactivity*, in the framework of ERRICCA 2 (European Radon Research and Industry Collaboration Concerted Action – FIRI-CT-2001-20142), organized by DPRSN/ITN and Câmara Municipal de Nisa, Nisa, 24 February.

Ciência Viva

Radioactivity measurement in environment samples by gama spectrometry supervisor L. Silva (2 weeks) [2 students]

Chemistry

Graduation and post-graduation teaching

M.I. Prudêncio, Invited Professor at the University of Lisbon, Ms.C. in Biomedical Inorganic Chemistry: Imaging and therapeutical applications. Discipline: *Radiochemistry: Fundaments and techniques*. Lecture on *Determination of Absolute Activity of radionuclides and radionuclide purity/gamma spectrometry*.

A. Pires de Matos, Invited Professor at the “Universidade Nova de Lisboa, Dep. de Conservação e Restauro”, Discipline: *Analytical Methods I and II*.

J. P. Leal, Responsible for the “*New Resources for Education in Chemistry*” chair on the Master Graduation “*Teaching Chemistry*”, Faculdade de Ciências, Universidade de Lisboa.

J.P. Leal, Invited professor of the Chemistry and Biochemistry Department of Faculdade de Ciências, Universidade de Lisboa.

J. Marçalo, Universidade de Évora, Departamento de Química, Discipline: *Biochemistry Analysis II*, lecture on Nuclear Chemistry and Radiochemical Methods.

J. Marçalo, Universidade Nova de Lisboa, Departamento de Conservação e Restauro, Discipline: *Analytical Methods I and II*, lectures on Radiochemistry and Mass Spectrometry.

L. Gano, Invited Professor at Faculty of Pharmacy, University of Lisbon, Discipline: *Radiopharmacy* (2nd Semester, 2004-2005), 10 hours.

A. Paulo, Invited Coordinator Professor at School of Health Technologies of Lisbon, Disciplines: *Radiopharmacy I* (2nd year, 2nd Semester, 2004 - 2005)

L. Gano, Invited Professor at *Faculty of Pharmacy, Univ. Lisbon*, Discipline: *Radiopharmacy* (1st Semester, 2005-2006), 10 hours.

A. Paulo, Invited Coordinator Professor at *School of Health Technologies of Lisbon*, Disciplines: *Radiopharmacy II* (3rd year, 1st Semester, 2005-2006).

A. Paulo, L. Gano, F. Marques, *Training on Radiopharmacy* at ITN, Graduation Course on Nuclear Medicine, ESTeSL, April 2005, 2 weeks.

F. Marques, *Training at ITN on Radionuclides in Nuclear Medicine: Radioactive Complexes as*

Therapeutical Agents, Physics Engineering Graduation, IST, Technical University of Lisbon, Feb., 2005, 2 weeks.

A. Paulo, Biomedical Applications of Radionuclides, Part I, PhD Teaching Programme *ITQB*, UNL, Oeiras, April 2005, 4 hours.

I Santos, Biomedical Applications of Radionuclides, Part II, PhD Teaching Programme *ITQB*, UNL, Oeiras, April 2005, 4 hours.

I. Santos, invited professor at the Faculty of Sciences, UL, *Master Course on Biomedical Inorganic Chemistry: Diagnostic and Therapeutical Applications*, ITN/FCUL, 2004-2005, Lisboa, July 2005, 7.5 hours.

A. Paulo, Generators, *Master Course on Biomedical Inorganic Chemistry: Diagnostic and Therapeutical Applications*, ITN/FCUL, 2005-2006, Lisboa, Nov., 2005, 4 hours.

F. Marques, Interaction of Radiation with Matter, *Master Course on Biomedical Inorganic Chemistry: Diagnostic and Therapeutical Applications*, ITN/FCUL, 2005-2006, Lisboa, Nov., 2005, 3 hours.

L. Gano, Invited Professor in Post-graduation *European Radiopharmacy Course CEA INSTN, Saclay, France*. Discipline: Measure of the Mass of Blood and Quality Control of ^{99m}Tc -Radiopharmaceuticals, Nov. 2005, 2 days.

L. Gano, Applications of Radionuclides in Biology and Medicine: Synthesis, Formulation, Mechanisms of Action and Quality Control of Radiopharmaceuticals, *Master Course on Biomedical Inorganic Chemistry: Diagnostic and Therapeutical Applications*, ITN/FCUL, 2005-2006, Lisboa, Dec. 2005, 7.5 hours.

J. Galamba, Synthesis of Radioactive Compounds, *Master Course on Biomedical Inorganic Chemistry: Diagnostic and Therapeutical Applications*, ITN/FCUL, 2005-2006, Lisboa, December, 2005, 2.5 hours.

A. Paulo, L. Gano, F. Marques, J. Galamba, P. Campello, P. Raposinho, C. Oliveira, Training on Radiopharmacy at ITN, Physicians resident in Nuclear Medicine (*Portaria 555/2003, 11 June*), December 2005, 2 weeks.

M.F. Araújo, Invited Professor at *Departamento de Química e Bioquímica, Faculdade de Ciências da Universidade de Lisboa*, Teaching of “*Métodos Avançados de Análise e Técnicas Hifenadas*” in the MSc course in “Applied Analytical Chemistry”.

M.F. Araújo, Invited Professor at *Departamento de Conservação e Restauro, Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa*, Teaching of “*Energy Dispersive X-ray Fluorescence Spectrometry*” in “Analytical Methods I” chair from the BSc course in “Conservation and Restoration”.

M.F. Araújo, Invited Professor at *Departamento de Conservação e Restauro, Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa*, Teaching of “*Energy Dispersive X-ray Fluorescence Spectrometry*” in “Analytical Methods II” chair from the BSc course in “Conservation and Restoration”.

A.M.M. Soares, Invited Professor at *Faculdade de Ciências Humanas e Sociais, Universidade do Algarve*, Teaching of “Applications of Radiocarbon Dating Method” in BSc course in “Cultural Heritage”.

A.M.M. Soares, Invited lecture at “*International Conference on Iberian Coastal Holocene Paleoenvironmental Evolution*”, Course on Absolute Radiocarbon Dating.

Lectures given by ITN staff

A.P. Gonçalves, Compostos intermetálicos magnéticos do tipo $\text{AFe}_x\text{M}_{12-x}$ (A=U, Y; M=Al, Ga; $3 < x < 7$), *Departamento de Engenharia de Materiais, Instituto Superior Técnico, Lisboa*, 5 November.

M.I. Dias, M.I. Prudêncio. “Geochemical and mineralogical characterization of Bell Beakers from Portuguese sites. A contribution to the establishment of provenance and circulation.” Univ. de Paris X-Université Paris 1. France.

A. Pires de Matos, O Vidro, a Arte e a Química, *Departamento de Química e Bioquímica, Faculdade de Ciências, Univ. Lisboa*, October.

J.P. Leal, The FT-ICR Mass Spectrometry Technique, *Departamento de Química e Bioquímica, Faculdade de Ciências da Universidade de Lisboa*, December.

Course organisation

I. Santos, *Master Course on Biomedical Inorganic Chemistry: Diagnostic and Therapeutical Applications*, Second Edition (2005-2006) (D. R. nº 123 of 26/05/04, II série)

I. Santos, Training Course on *Radiopharmaceuticals*, Physicians resident in Nuclear Medicine, Hospital de Santa Cruz (*Portaria 555/2003, 11 June*) ITN, Sacavém, 2 weeks, December

Conference organisation

N. Marques, Organizing Committee, *VI Conferência de Química Inorgânica da Sociedade Portuguesa de Química*, Funchal, Madeira, March.

N. Marques, International Organizing Committee, “*Actinides 2005*”, Manchester, July.

A. Pires de Matos and J. Marçalo, Scientific and Local Organizing Committees, *Glass Science in Art and Conservation*, UNL, Caparica, September.

J. Marçalo, Local Organizing Committee, *Glass Science in Art and Conservation*, UNL, Caparica, September.

M. Almeida, V. Gama, *Workshop on Molecular Materials 2005*, “Research frontiers in molecular materials science” organized by the Solid State Group, ITN, Sacavém, October

Ciência Viva

I. Santos, C. Fernandes, *Radiofármacos para Imagiologia Molecular*, QIR Sacavém, July

Jury Membership

I. Santos, member of PhD jury, in Radiopharmacy Faculty of Pharmacy, University of Lisbon, November

A. Pires de Matos, Member of the Juries of 3 Graduation Thesis, Themes: Analytical Methods and Conservation, Departamento de Conservação e Restauro, Universidade Nova de Lisboa, December

A. Pires de Matos, member of two juries for principal researcher in ITN, 2005

J.P. Leal, Arguing member in the PhD Thesis by Ana Catarina Correia in Chemistry (Energética da Ligação O-H em Compostos Fenólicos), Faculdade de Ciências, Univ. Lisboa, December.

J.P. Leal, Arguing member in the Master Thesis by Flora Maria Barros Ferreira in Multimedia Education (Tabela Periódica Interactiva On-line), Faculdade de Ciências, Univ. Porto, September.

J.P. Leal, Arguing member in the Graduation Thesis by Marco António de Sousa Felisberto in Technological Chemistry (Espectrometria de Massa de Isótopos Leves), Faculdade de Ciências, Univ. Lisboa, October.

M.F. Araújo, Jury in *MSc Thesis*, P. Valério, *Caracterização química de artefactos metálicos do Castro da Senhora da Guia de Baiões (Bronze Final)*, Faculdade de Ciências, Univ. Lisboa, December.

M.F. Araújo, Jury in *BSc Thesis*, A. Lobato, *A espectrometria de fluorescência de raios X na caracterização química de sedimentos da zona estuarina do rio Minho*, Univ. Évora, December.

M.F. Araújo, Jury in *BSc Thesis*, M. Ferraz, *“Caracterização geoambiental da Lagoa de Albufeira a micro e mesoescala temporal”*, Faculdade de Ciências, Univ. Lisboa, October.

M.F. Araújo, Jury in *BSc Thesis*, M. Piedade, *Caracterização geoambiental da bacia hidrográfica da Lagoa de Santo André*, Faculdade de Ciências, Univ. Lisboa, March.

M.F. Araújo, Jury in *BSc Thesis*, R. Ramos, *Caracterização geoambiental da Lagoa de Santo André a mesoescala temporal*, Faculdade de Ciências, Univ. Lisboa, October.

P.M. Carreira, Jury in *PhD Thesis*, P.G. Fernandes, *Estudo hidrogeológico dos sistemas aquíferos Sado – Sines: evolução hidrogeoquímica e isotópica*, Faculdade de Ciências, Univ. Lisboa, February.

P.M. Carreira, Jury in *BSc Thesis*, M. Felisberto, *Espectrometria de massa de isótopos leves (¹⁸O e ²H): aplicações na caracterização dos mecanismos de interacção águas superficiais – águas subterrâneas na Bacia Hidrográfica do Sado*, Faculdade de Ciências da Universidade de Lisboa, November.

M. Almeida, jury of PhD thesis, J.C.S. Dias *À procura de estrutura em escada*, Instituto Superior Técnico, December.

Physics

Graduation and post-graduation teaching

A.N. Falcão, Invited Coordinator Professor, *Applied Physics* (1st Semester) and *Biomechanics* (2nd Sem.), at Escola Superior de Tecnologias da Saúde de Lisboa.

C. Cruz, Lectures in Experimental Nuclear Techniques – laboratory lectures for the Masters Degree in the field of Security and Radiological Protection, ITN/IST.

E. Alves, Invited Coordinator Professor, *Applied Physics* – 1st Semester of Nuclear Medicine, Radiology and Radiotherapy courses at the Escola Superior de Tecnologias da Saúde de Lisboa.

E. Alves, Invited Coordinator Professor, Atomic and Nuclear Physics – 2nd Semester of Nuclear Medicine, Radiology and Radiotherapy courses at the Escola Superior de Tecnologias da Saúde de Lisboa.

R. Silva, Invited Professor, Lectures in Ion Beam Analysis –in the framework of the course on Methods of Inspection and Analysis – II for the 8th semester of the Graduation in Conservation and Restoration, Universidade Nova de Lisboa.

R. Silva, Invited Professor, Lectures in Nuclear Physics –theoretical plus laboratory course for the 7th semester of Physical Engineering and Biomedical Engineering, Universidade Nova de Lisboa.

Lectures given by ITN staff

E. Alves, *Ion implantation: A Tool for New Materials*, Joint European Masters Programme in Materials Science, Univ. Aveiro, 20 February

E. Alves, *Ion Beam Analyses: Fundamentals and Applications*, Joint European Masters Programme in Materials Science, Univ. Aveiro, 20 Feb February

K. Lorenz, *RBS/Channelling studies of rare earth implanted AlN*, lecture at RENiBEL meeting, Leuven, Belgium 24-26 January.

K. Lorenz, *Lattice site location of Er in AlN*, lecture at RENiBEL meeting, Glasgow, UK, 15-17 September.

M.L. Botelho, *Irradiação uma tecnologia de futuro: aspectos gerais*, lecture at Escola Superior Agrária de Santarém, Santarém, Portugal, 26 October.

S. Cabo Verde, *Irradiação uma tecnologia de futuro: aplicação nos alimentos*, lecture at Escola Superior Agrária de Santarém, 26 October.

Conference organisation

E. Alves, Chairman of 1st Workshop on Nanomaterials for Applications in Devices, ITN, Sacavém, 18 April.

E. Alves, Organizer and chairman of the session "Facilities/Equipments" 17th Int. Conf. on Ion Beam Analysis", Sevilla, Spain, 26 June – 1 July

Ciência Viva

C. Marques, *Rutherford Experiment*, 4-7 July and 1-12 August.

Jury membership

E. Alves, Arguing Member of the Ph.D. thesis by Bert Pipeleers, *Defect accumulation in Er implanted GaN*, Katholieke Univ. Leuven, Belgium, 22 February.

E. Alves, Member of the jury of the Ph.D. thesis by Sérgio Manuel de Sousa Pereira, *Estudo de propriedades estruturais e ópticas de multicamadas epitaxiais emissoras de luz baseadas em InGaN/GaN*, Univ. Aveiro, 7 March.

E. Alves, Member of the jury of the Ph.D. thesis by Maria do Rosário Pimenta Correia, *Estudo de*

transições electrónicas e vibracionais em filmes de InxGa1-xN, Univ. Aveiro, 19 May.

E. Alves, External referee of Ph.D. thesis by Huang Long, *High resolution transmission ion channeling investigations of crystal defects*, Univ. Singapore, 10 October.

E. Alves, Member of the jury of the Ph.D. thesis by Ana Clara Marques, *Erbium/Silver glass matrix nanocomposites by sol-gel processing, for integrated optics*, Instituto Superior Técnico de Lisboa, 15 December

U. Wahl, Member of the jury of the Ph.D. thesis by Bart De Vries, *Lattice site location of impurities in group III-nitrides using emission channelling*, Katholieke Univ. Leuven, Belgium, 19 Dec 2005.

M.L. Botelho, Arguing member of the M.Sc. thesis by Rita Melo, *Estudo da radiação ionizante no tratamento de águas residuais: aspectos tecnológicos e sócio-económicos*, Univ. dos Açores, Feb 2005.

M.L. Botelho, Arguing member of graduation thesis by Ana Anacleto, *Impacto da irradiação nas características físico-químicas e reológicas do mel* Escola Superior Agrária de Santarém, Jun 2005.

S. Cabo Verde, Arguing member of graduation thesis by Sandra Martins, *Determinação de parâmetros físico-químicos em ovoprodutos submetidos à irradiação*, Escola Superior Agrária de Santarém, Jun 2005.

S. Cabo Verde, Arguing member of graduation thesis by Patrícia Luís, *Estudos físicos e reológicos em maionese e bolo esponja confeccionados com ovoprodutos irradiados e não irradiados*, Escola Superior Agrária de Santarém, Dec 2005.