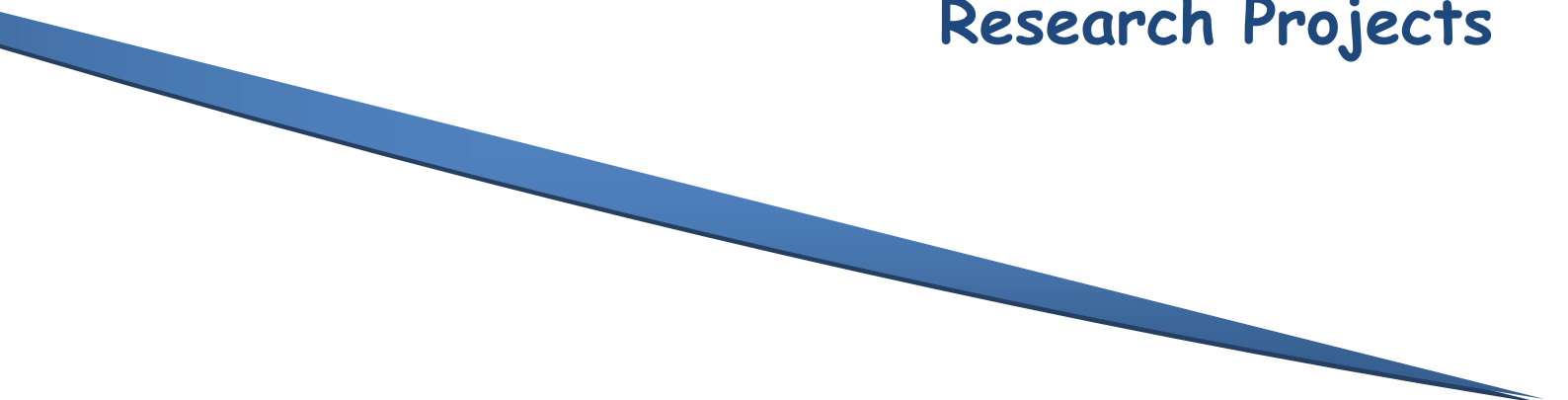


Research Projects



Reactors and Nuclear Safety Unit

Operation and Exploitation of the Reactor, Dosimetry (RPI) and Reactor Calculations

Current Projects

2010 ITN budget in €

<i>Two Contributions to the Search for Dark Matters of the Universe</i> , PTDC/FIS/83424/2006, May 2008 - June 2010. Prime contractor: CFNUL, Co-ordinator: Thomas A. Girard	-
<i>Accurate heavy ion ERDA of oxynitride films: Improved modelling of straggling and multiple scattering and extension of the stopping data bases.</i> , IAEA, Research Contract No. 14365/R0/Regular Budget Fund., September 2007 - August 2011. Total budget: € 27.000, ITN budget € 27.000. Prime contractor: ITN, Co-ordinator: N.P. Barradas	7.000,00

Total budget 7.000,00

Applied Dynamics

Current Projects

2010 ITN budget in €

<i>Extension of the contract Nonlinear Fluid-elastic Vibrations of Nuclear Steam-Generator Tubes (TGV-ICESurVITAMINE/2)</i> . October 2009- April 2010. Contractor CEA, France. Total budget € 11500, ITN budget € 11500; Prime contractor: ITN (Co-ordinator: J. ANTUNES) Partners: Commissariat à l'Energie Atomique – CEA/Saclay, France (T. LAPORTE)	11.500,00
<i>Vibratory Identification of Flow Excitations in Nuclear Fuel Bundles (IVECO)</i> . October 2010-March 2011. Contractor CEA, France; Total budget € 18000, ITN budget € 18000 Prime contractor: ITN (Co-ordinator: J. ANTUNES); Partners: Commissariat à l'Energie Atomique – CEA/Saclay, France (T. LAPORTE)	0,00
<i>The Mafra carillons: Development of Advanced Methods in Music Acoustics for Tuning and Restoration</i> . April 2010-March 2013. FCT project PTDC/EAT-MMU/104255/2008. Total budget € 175966, ITN budget € 94464; Prime contractor: UNL/FCSH, Lisbon (Co-ordinator: J. SOEIRO); Partners: ITN (J. ANTUNES), IPP/ESMAE (O. INÁCIO)	94.464,00

Total budget 105.964,00

Neutron Activation in Environment, Nutrition and Epidemiology

Current Projects

2010 ITN budget in €

<i>Impact of atmospheric aerosol in human health</i> , PPCDT/AMB/55878/2004. January 2007-May 2009. Total budget € 62844, ITN budget € 35952. Prime contractor: ITN Coordinator: M.C. FREITAS	7.667,89
<i>Impact of atmospheric indoor aerosol in human health</i> , PTDC/SAU-ESA/65597/2006. July 2008-June 2011. Total budget € 176859, ITN budget € 54878. Prime contractor: ITN Coordinator: M.C. FREITAS	53.057,70
<i>(Hyper)accumulation of arsenic and other elements in plants adapted to sites impacted by mining and smelting activities. Speciation, identification of accumulation and detoxication mechanisms and applications in bioremediation (HYPERAS)</i> . PTDC/AMB/65462/2006. August 2007-July 2010. Total budget € 178969, ITN budget € 23940. Prime contractor: IMAR Coordinator: A. Bettencourt ITN Coordinator: M.C. FREITAS	7.182,00

Exhaled breath condensate: a tool for noninvasive evaluation of pollutant exposition?

RESEARCH PROJECTS

PTDC/AMB/65828/2006. October 2007-September 2010. Total budget € 199006, ITN budget € 55087 (shared with T.Pinheiro, UFA). Prime contractor: ISQ Coordinator: S.M. ALMEIDA	0,00
<i>Assessment of emissions and impact of steel production processes.</i> June 2009 – December 2012. Total budget €, ITN budget € 40000. Prime contractor: TATA STEEL Coordinator: D. Anderson ITN Coordinator: S.M. ALMEIDA	0,00
<i>Selenium distribution in cereals and Portuguese cultivation soils. Interactions between selenium and iodine uptake by cereals – A case study.</i> PTDC/QUI/65618/2006. January 2009-December 2011. Total budget € 73440, ITN budget € 36000. Prime contractor: IST Coordinator: Adriano M.G. Pacheco ITN Coordinator: M.C. FREITAS	0,00
<i>Enhancing the sustainability of Research Reactors and their safe operation through regional cooperation, networking and coalition.</i> IAEA RER/4/032. January 2009-December 2011 International Atomic Energy Agency ITN Coordinator: M.C. FREITAS. one scientific visit and two fellowship trainings to KFKI, Budapest, Hungary	0,00
<i>CV-Dust – Atmospheric aerosol in Cape Verde region: seasonal evaluation of composition, sources and transport, PTD.</i> May 2010 – April 2013. Total budget € 198.891, ITN budget € 68.205. Prime contractor: UAveiro Coordinator: C.A. Pio ITN Coordinator: M.C. FREITAS	13.641,00
<i>PM_{fugitive} – Mitigation the Environment and Health Impacts of Particles from Fugitive Emissions</i> January 2010 – December 2012. Total budget € 199.091, ITN budget € 110.109. Prime contractor: ITN Coordinator: S.M. ALMEIDA	39.818,20
<i>Characterizing seasonal variations in elemental particulate matter concentrations in European urban and rural areas under different climatic conditions.</i> Technical Cooperation Project RER/2/005. January 2009-December 2011. International Atomic Energy Agency ITN Coordinator: M.C. FREITAS	0,00
<i>Teflon and polycarbonate filters, one air sampler, one meeting in Podgorica, Montenegro, two intercomparison participations, Athens, Greece</i>	
Total budget €	121.366,79

Radiological Protection and Nuclear Safety Unit

Dosimetry and Radiobiology

Current Projects

2010 ITN budget in €

<i>Digital technologies for mammography: optimization using Monte Carlo simulation techniques.</i> Project PTDC/SAU-BEB/100745/2008. Total budget € 150.000, ITN budget € 16.600, Prime contractor: Universidade Católica Portuguesa, Faculdade de Engenharia, A. Pascoal; ITN Co-ordinator J.G. Alves.	-----
<i>Dose distribution mapping and Monte Carlo simulations in CT-fluoroscopy.</i> Project PTDC/SAU-ENB/115792/2009. Total budget € 143.629, ITN budget € 47.596 Prime contractor: Instituto Português de Oncologia do Porto de Francisco Gentil, J.M. Santos. ITN Co-ordinator J.G. Alves.	-----
<i>Harmonization of Individual Monitoring in Europe.</i> EURADOS WG2. ITN Co-ordinator J.G. Alves.	-----
<i>EUROpean Research Programme for the TRANSmutation of High Level Nuclear Waste in an Accelerator Driven System (IP-EUROTRANS)</i> a European Union co-financed project in the 6 th Framework Program EURATOM (ref. FI6W-CT-2004-516520), Total budget: € 46000000, ITN budget: € 250000. ITN Coordinator P. Vaz.	26.027,79
<i>CDT – Central Design Team for a Fast Spectrum Transmutation Experimental Facility,</i> , European Union co-financed project in the 7 th Framework Programme EURATOM (Grant agreement n ^o : FP7-232527), Total budget € 3000000, ITN Budget € 70000 Euro, ITN Coordinator P. Vaz.	-----
<i>ENETRAP-II: European Network for Education and Training in Radiation Protection (Part-II),</i> European Union co-financed project in the 7 th Framework Programme EURATOM (agreement number 232620) Total budget. € 1473000, ITN budget: € 78000, ITN Coordinator P. Vaz.	31.698,85

Total budget 57.726.64

Metrology Laboratory of Ionizing radiation

Current Projects

2010 ITN budget in €

<i>Increasing cancer treatment efficacy using 3D brachytherapy - T2.J06 Brachytherapy EMRP</i> 2007 EURAMET e.V. (2008 a 2011). Total project cost € 3 661691, EC funding, ITN budget € 19 370. Prime contractor: ENEA, ITN Coordinator C. Oliveira.	0,00
	6.755,28

Total budget 6.755,28

Environmental Radioactivity

Current Projects

2010 ITN budget in €

<i>Biomass burning and emissions of atmospheric pollutants (Contribuição da combustão de biomassa para a emissão de poluentes atmosféricos-BIOEMI).</i> Contract FCT PTDC/AMB/65706/2006 Total budget: 199,957€ (years 2007-2010) ITN budget: 74340 €. ITN Coordinator F.P. Carvalho.	22.302,00
<i>Participation in the education web based project CAPTAR (Web site: captar.web.ua.pt) in the field of environmental sciences.</i> Project coordinated by the University of Aveiro, funded by the Gulbenkian Foundation. ITN Coordinator F.P. Carvalho.	-----

PUBLICATIONS

Total column and surface ozone variability over the Iberian Peninsula: Dynamical and Chemical atmospheric factors – DYNOZONE. Contract PTDC/CTE -ATM/105507/2008. Total budget (2010-2013): 130 k€. ITN budget: 17 k€ Prime contractor: New University of Lisbon, ITN Coordinator M. Reis.

Total budget 22.302,00

Radioprotection and Radioactive Waste

Current Projects

2010 ITN budget in €

Study of the Adsorption Mechanisms and Kinetics in Geomaterials and Their Structural Characterisation: Implications for Processes of Natural Attenuation of Heavy Metal Contamination and Radioactive Wastes Confinement – KADRWaste; (PTDC/CTE-GEX/82678/2006. Total budget € 200 000, ITN budget € 51760. Prime contractor: FFC/FC/UL; ITN Coordinator: I.Paiva. -----

Actinide reCycling by SEparation and Transmutation ACSEPT (7th Programme EURATOM-FP7-Fission2007); ACSEPT - FP7-Contract N° 211267. Total budget € 8999000, ITN budget € 20000; Prime contractor: CEA; ITN Coordinator: I. Paiva. -----

Radioactive Liquid Discharges from Hospitals in Public Sewage of Lisbon Borough Council, 2010 Total budget € 31378,45, ITN budget €31378,45. Prime contractor: CML; ITN Coordinator: R. Trindade. -----

PETRUS II—Towards an European training market and professional qualification in Geological Disposal. Total budget: €800000, ITN budget € 37000. Prime contractor: INPL, France; ITN Coordinator: I .Paiva. 27.750,00

Total budget 27.750,00

Chemical and Radiopharmaceutical Sciences Unit

Applied Geochemistry & Luminescence on Cultural Heritage

Current Projects

	2010 ITN budget in €
<i>Halieutical resources industry in roman times: the Casa do Governador da Torre de Belém, the Tagus estuary and the Atlantic coast</i> ; PTDC/HAH/74057/2006; Total budget 95.785,00 €; ITN budget: 29.600,00 €; ITN Coordinator: M.I. DIAS; Prime contractor: U. Lisboa, C. FABIÃO	17.640,00
<i>Dating, authenticity, materials, pigments. A laboratory study on Portuguese Faience and Chinese Porcelain produced for the Portuguese market (XVI to XVIII centuries).</i>	----
PTDC/HAH/69506/2006; Total budget: 156.439,00 €; ITN budget: 87.595,00€ Prime contractor: ITN, M.I. DIAS	
<i>Transition landscapes: Settlement, technology and chrono-stratigraphy o the transition to farming, in Central Portugal</i> ; PTDC/HAH/71361/2006; Total budget 199.740,00 €; ITN budget: 32.400,00 €; ITN Coordinator: M.I. DIAS; Prime contractor: I.P.Tomar, L. OOSTERBECK	----
<i>"Using Nuclear Techniques for the characterization and preservation of Cultural Heritage Artefacts in the European Region".; Technical Cooperation Project - RER 8015</i>	----
Portuguese nuclear scientist nominated (2009-2011): M. I. PRUDÊNCIO	
<i>Diagnosis, decontamination and conservation of cultural heritage: neutrons and ionizing radiation in artwork (RADIART)</i> ; PTDC/HIS-HEC/101756/2008	28.000,00
Total budget 140.000,00 €; ITN budget: 103.528,00 €; Prime contractor: ITN, M. I. PRUDÊNCIO	
Total budget	45.640,00

Closed projects and Services

Luminescence (TL-OSL) absolute dating and Chemical and mineralogical characterization of geological and archaeological contexts/artefacts	----
Total budget	
Total budget	45.640,00

Environmental and Analytical Chemistry

Current Projects

	2010 ITN budget in €
<i>Early Metallurgy in the Portuguese Territory (EARLYMETAL)</i> PTDC/HIS-ARQ/110442/2008; 2010 – 2013; Total budget: 304 000 €, ITN budget: 172 608 € Prime contractor: ITN coordinator: M.F. ARAÚJO	60.800,00
<i>Recent evolution of Portuguese W coast estuaries: high resolution studies from marshes geological record (WestLog)</i> ; PTDC/CTE-GIX/105370/2008; 2010-2013; Total budget: 150 000 €, ITN budget: 48 001 € Prime contractor: Fundação da Faculdade de Ciências, ITN coordinator: M.F. ARAÚJO	9.600,20
<i>Environmental changes: Fluvio-marine interactions over the last 5000 yr (FMI 5000)</i> PTDC/CTE-GIX/104035/2008; Total budget: 185 000 €, ITN budget: 45 937 € Prime contractor: Fundação da Universidade de Lisboa, ITN coordinator: A.M. SOARES	7.000,00
<i>The Ocean Reservoir Effect in the Transition Area sof the West-Iberian Coastal Upwelling (Aveiro/Mouth of the Minho River; Cape Santa Maria/Mouth of the Guadiana River)</i> PTDC/MAR/68942/2006, 2008 – 2011; Total budget: 128 507 €, ITN budget: 106 068 € Prime contractor: ITN coordinator: A.M. SOARES	0,00

RESEARCH PROJECTS

<i>Paleoenvironmental Evolution of the Nazaré Coastal Plain since the Lateglacial (PALEONAZ)</i>		
PTDC/CTE-GEX/65789/2006, 2007 – 2010; Total budget: 160 000 €, ITN budget: 21 120 €		
Prime contractor: Fundação da Faculdade de Ciências, ITN coordinator: M.F. ARAÚJO		0,00
<i>Isotopes, Noble Gases and Water-Rock Interaction of the Central Group of Azores Islands: a Contribution to the Geothermal Potential Evaluation and the Seismo-Volcanic Hazard Assessment</i>		
PTDC/CTE-GIN/68851/2006, 2007 – 2010; Total budget: 90 000 €, ITN budget: 13 700 €		
Prime contractor: Universidade dos Açores, ITN coordinator: P.M. CARREIRA		5.280,00
<i>Groundwater Resources Assessment and Evaluation of Marine Intrusion in the Cap Bon Area, Northern Tunisia, Using Geochemical, Geophysical and Isotope Techniques. Bilateral Cooperation TUNÍSIA - GRICES, Proc. 4.1.5 Tunísia; ITN coordinator: P.M. CARREIRA.</i>		
		0,00
Total budget		82.680,20

Closed projects and Services

<i>Metallurgy and Society in Central Portugal Late Bronze Age</i>		
POCTI/HAR/58678/2004, 2005 - 2009		
Total budget: 52 150 €, ITN budget: 27 535 €		
Prime contractor: Faculdade de Letras, ITN coordinator: M.F. ARAÚJO		14.099,31
<i>Services/Contracts</i>		
		12.009,00
Total budget		26.108,31
Total budget		108.788,51

Inorganic and Organometallic Chemistry

Current Projects

	External funding 2010 in €
<i>Coupling catalysts and nonthermal plasma for low temperature decomposition of organic volatile compounds; PTDC/EQU-EQU/65126/2006, 2008 – 2011; Total budget 127 200 €, ITN budget 115 200 €; Prime contractor: ITN; Coordinator: J. Branco; ITN Partners: N. Pinhão (UFA), A.P. Gonçalves (UCQR); ISEL Partner: L. Redondo</i>	
	38.160,00
<i>Potassium - lanthanide molten salt catalysts; PTDC/QUI/72290/2006, Jan 2009 – Dec 2010</i>	
Total budget 24 615 €, ITN budget 24 615 €; Prime contractor: ITN; Coordinator: J. Branco	
	7.384,50
<i>Energetics of metallic polyalkoxides; PTDC/QUI/65507/2006, Jan 2009 - Dec 2011</i>	
Total budget 70 944 €, ITN budget 70 944 €; Prime contractor: ITN; Coordinator: J. P. Leal	
	0,00
<i>Ti(III) and U(III) complexes with bis(phenoxide)diamine ligands - Applications in C-C bond forming by electron-transfer reactions; PTDC/QUI/66187/2006, Nov 2008 – Nov 2011</i>	
Total budget 72 719 €, ITN budget 34 719 €; Prime contractor: IST; Coordinator: A.M. Martins	
Partners: ITN, J. Marçalo	
	0,00
<i>Ansa-bridged organorhenium(VII) oxides and their applications as homogeneous and heterogeneous catalysts; PTDC/QUI/71198/2006, Jan 2008 – Dec 2010</i>	
Total budget 59 700 €, ITN budget 17 328 €; Prime contractor: U. Aveiro; Coordinator: I.S. Gonçalves; Partners: ITN, J. Marçalo	
	5.198,40
<i>Gas Phase Thermochemistry of 4d and 5d Transition Metal Oxides: A Study by FTICR-MS</i>	
PTDC/QUI-QUI/108977/2008, Jan 2010 – Dec 2011; Total budget 52 382€, ITN budget 8 400€	
Prime contractor: IST; Coordinator: M.C. Oliveira; Partners: ITN, J. Marçalo	
	3.500,00
<i>Mass Spectrometry Network - Instituto Tecnológico e Nuclear</i>	
REDE/1503/REM/2005, Jan 2009 - Dec 2011; Total budget 44 500€, ITN budget 44 500€	
Prime contractor: ITN; Coordinator: J. Marçalo	
	5.549,02
<i>Exploring the Chemical Differences between Trivalent Lanthanides and Actinides by Mass Spectrometry Techniques, ACTINET-I3/FP7-III-232631/JRP17, Jul 2010 - Dec 2011</i>	
Total budget ---, ITN budget ---	
	0

RESEARCH PROJECTS

(Travel and living expenses for work at CEA-Atalante paid by ACTINET-I3) Prime contractor: ITN; Coordinator: J. Marçalo; Partners: CEA-Atalante, L. Berthoin; LBNL, J.K. Gibson	
<i>Gas Phase Reactions of Ionic Liquids</i> ; PTDC/QUI/66199/2006, Jan 2008- Dec 2010 Total budget € 75 300 €; Prime contractor: FCUL; Coordinator: J.P. Leal Partners: ITQB, L.P. Rebelo	0
<i>Glass Art and 2D and 3D Printing</i> ; PTDC/EAT/67354/2006, Sep 2007 - Aug 2010 Total budget 135 472€ Prime contractor: Research Unit “Vidro e Cerâmica para as Artes”, FCT/UNL; Coordinator: A. Pires de Matos	0
<i>Research Unit “Vidro e Cerâmica para as Artes”, FCT/UNL-FBAUL</i> Supported by FCT/MCTES, 2010; Total budget 22 506€ Members from ITN: A. Pires de Matos (Coordinator), J. Marçalo.	0
Total budget	59.791,92
Closed projects and Services	
<i>Molecular Energetics</i> POCTI/QUI/35406/2000	1.691,60
<i>Thermochemistry Studies of Actinide Species in the Gas Phase by FTICR/MS</i> POCI/QUI/58222/2004	900,00
<i>Services</i>	120,00
Total budget	2.711,60
Grand total budget	62.503,52

Radiopharmaceutical Sciences

Current Projects

	2010 ITN budget in €
<i>Novel Metal Fragments Potentially Useful for Labelling Biologically Relevant Molecules with Tc and /or Re</i> POCI/QUI/58245/2004, Oct. 2005-Abril. 2009, Total budget 73000€, ITN budget 73000€; Prime contractor: ITN, Co-ordinator, I. Santos	4.079,85
<i>Radiolabeled Benzazole Derivatives for In Vivo Imaging of Amyloid Aggregation</i> , PTDC/QUI-QUI/102049/2008, 2010-2013. Total budget € 197.596,00; ITN budget 111.146,00; Prime contractor: ITN, Co-ordinator A. Paulo. Partners: Centro de Neurociências e Biologia Celular (Coimbra), ICNAS (Coimbra), IMM (Lisboa).	39.519,20
<i>Evaluation of Acute Pulmonary Oedema – Development of a New Technique Using Giant Unilamellar Liposomes</i> , PTDC/SAU-BEB/76455/2006, October 2007- October 2010, Total budget 77460,00 €. Prime contractor FMUC, ITN budget 2160,00 €, Co-ordinator, L. Gano	
<i>Multicomponent Technetium and Gallium Metallointercalators for Targeted Radiotherapy</i> POCI/QUI/57632/2004, Oct. 2005-April 2009, Total budget € 47500, ITN budget € 42200 Prime contractor: ITN, Co-ordinator A. Paulo.	6.670,62
<i>Chemical, Radiochemical and Biological Studies of Pyrazolyl- alkylamine Pt(II) Complexes: Applications on the Development of Novel Anti-Cancer Drugs</i> , PTDC/QUI/66813/2006, 2009-2012. Total budget € 127 000, 789, ITN budget € 101789,00; Prime contractor: ITN, Co-ordinator, A. Paulo.	
<i>Radiolabelling of L-Arginine Analogues with the fac-[^{99m}Tc(CO)₃]⁺ for Probing Nitric Oxide Synthase (NOS) in vivo: Synthesis, Characterization and Biological Evaluation.</i> POCI/SAU-FCF758855/2004, Jan. 2005-June 2009; Total budget 80000€, ITN budget 79000€; Prime contractor : ITN, Co-ordinator J. D. G. Correia.	11.168,88
<i>Novel Drugs to Target Bio-Receptors Aimed at Pharmacological Applications.</i> POCI/QUI/56985/2004, Sept 2006-Sept 2009. Total budget 59000€, ITN budget 4800 € Prime contractor: IST, M.A. Santos, ITN Co-ordinator: L. Gano	2.000,00

RESEARCH PROJECTS

<i>Radioligandos para o receptor estrogénico –potencial clínico em imagem e terapia de tumores da mama.</i> Fundação Calouste Gulbenkian. Proc. N° 96476. Outubro 2009-Outubro 2011, Total budget 47.500 €. Partners: IBILI, CIMAGO. ITN budget 30.000 €, Co-ordinator: M. C. Oliveira.	
<i>Avaliação do potencial genotóxico e anti-estrogénico de derivados do trifeniletileno e seus metabolitos,</i> POCTI/QUI/33544/2000, Prime contractor: IST, ITN, Co-ordinator C. Melo	3.735,83
<i>Complexos de Ruténio para aplicação anti-tumoral.</i> FCUL FCT project: PTDC/QUI-QUI/101187/2008 and ITN partner. ITN budget 9,600€. ITN Co-ordinator: F. Marques.	1.920,00
<i>Radiosynthesis and biological evaluation of novel receptor tyrosine kinase inhibitors for in vivo targeting of EGFR and VEGFR.</i> Bilateral Project Portugal/Germany (FCT/DAAD). Project number: 0811983 (441.00), 2009-2010. Total budget 5,000€. ITN Co-ordinator: I. Santos	2.500,00
Total budget	71.594,38

Solid State

Current Projects

	2010 ITN budget in €
<i>Novel layered ferrite materials with mixed ionic-electronic conductivity for applications in alternative energy sources,</i> PTDC/CTM/64357/2006, 1st January 2008 – 31st December 2010 Total budget 146.000 €, ITN budget 69.240€; Prime contractor: ITN, J.C. Waerenborgh Partners: Univ. Aveiro, V.V. Kharton	43.800,00
<i>Switchable molecular conductors,</i> PTDC/QUI/65379/2006. 1 st November 2007 - 31 October 2010 Total budget € 93.300 ITN budget € 82.810; Prime contractor: ITN; Coordinator: V. Gama Partners: Univ. Técnica de Lisboa, IST (M.T. Duarte)	1.490,00
<i>Transition metal complexes based on new thio-azo ligands for heterobimetallic networks and molecular conductors,</i> PTDC/QUI/64967/2006. 1 st November 2007 - 30 April 2010 Total budget € 125.100, ITN budget € 73.680,00; Prime contractor: ITN; Coordinator: M. Almeida Partners: Instituto de Telecomunicações/ IST (R.T. Henriques)	42.083,84
<i>Synthesis and characterization of new U and Fe compounds with Ge, Ga and Sb,</i> PTDC/QUI/65369/2006. 1 st October 2007 - 30 September 2009 Total budget € 56.100, ITN budget € 56.100; Prime contractor: ITN; Coordinator: A.P. Gonçalves Partners: Univ. Técnica de Lisboa, IST (P.A. Carvalho)	16.830,00
<i>Molecular approach to nanomagnets and multifunctional materials – MAGMANET</i> NOE 500341-2 Priority3-NMP, in collaboration with 15 other Institutions, lead by D. Gatteschi, Florence, May 2005-April 2009; Total budget € 10 000 000; ITN Co-ordinator: M. Almeida	8.084,68
<i>CRYSTALOGEN Novel highly extended transition metal bisdithiolene complexes,</i> PTDCI/QUI-QUI/101788/2008, Feb 2010-Aug2013; Total budget € 179.106; ITN Co-ordinator: M. Almeida	35. 821,20
<i>SISTERMO, Novos Sistemas Termoelectrónicos,</i> PTDC/CTM/102766/2008, Feb 2010–Jan 2013 ITN budget 118.194€; ITN Co-ordinator: Elsa Lopes	23.638,80
<i>MOLMAG- Study and development of new molecular magnets</i> May 2010- May 2013; Total budget € 160.000, ITN budget € 15.000 Prime contractor: Dept. Física da Univ. de Coimbra. Coordinator: M. Ramos Marques da Silva. Partners: ITN Coordinator L.C.J. Pereira (team member: J.C. Waerenborgh)	3.000,00
<i>SEMISPIN- High-Curie temperature dilute magnetic oxide semiconductors for application in Spintronics;</i> January 2010- December 2012; Total budget € 175.000, ITN budget € 26.040 Prime contractor: Dept. Física ISEL. Coordinator: António. J. Silvestre. Partners: ITN Coordinator L.C.J. Pereira	1.440,00
<i>Structural and Magnetic Study of Low-dimensional Coordination Compounds</i> POCI/FIS/57876/2004, March 2005 – February 2007; Total budget € 80 000, ITN budget € 12 500; Prime contractor: Dept. Física da Univ. de Coimbra. Coordinator: M. Ramos Marques da Silva. Partners: ITN Coordinator L.C.J. Pereira (team member J.C. Waerenborgh)	1.200,00
<i>Novel lithiated phosphates $Li_3Fe_{3(1-x)}M_{3x}(PO_4)_3$ (M= Co, Ni, Mn) for rechargeable batteries"</i> (Proc. 441.00 CNRST) Cooperação Científica e Técnica ao abrigo do acordo FCT-CNRST (Marrocos), Jan 2010-Dec 2011; Total budget € 3700, ITN budget € 3700 Prime contractor: ITN; Coordinator: J.C. Waerenborgh	1.850,00

RESEARCH PROJECTS

<i>Search for novel uranium and ytterbium-based intermetallics containing zinc and determination of their crystallochemical and physical properties</i> , Projecto de Cooperação Científica e Técnica Luso-Polaca ao abrigo do Acordo Portugal/Polónia, 2009-2010; Total budget € 2300, ITN budget € 2300 Prime contractor: ITN; Coordinator: A.P. Gonçalves	2.300,00
<i>Study of new strongly correlated systems</i> , ICCTI/ASCR (Academia das Ciências da Republica Checa) 2009; Total budget € 1600, ITN budget € 1600; Prime contractor: ITN; Coordinator: A.P. Gonçalves	450,00
<i>Closing of older projects:POCTI/FIS/12070/2000.</i> Prime contractor: ITN; Coordinator:: M. Almeida	3.004,94

Total budget	184.993,46
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Physics and Accelerators Unit

Advanced Materials Research

Current Projects

	2010 ITN budget in €
<i>Fusion for Energy Programme contract, F4E-2009-GRT-030 (PNS-TBM), ACTION3: Post Irradiation Examination of Be materials irradiated in HIDOBÉ-01 campaign. ITN Coordinator: E. Alves.</i>	6.336,00€
<i>Fusion for Energy Programme contract, F4E-2009-GRT-030 (PNS-TBM), ACTION3: Screening of an alternative production route/capacity for Be pebbles, ITN Coordinator: E.Alves.</i>	5.160,00€
<i>Multifox: Nanometric Probing and Modification of Multiferroic Oxides, PTDC/FIS/105416/2008, Total budget: 199.752,00€, ITN budget: 14.400,00€. Prime Contractor: U. Aveiro (Vitor Amaral), ITN Coordinator: E.Alves.</i>	2.472,00 €
<i>DiFusion - Diamond dispersions in nanostructured metals: Novel materials design for fusion reactors, PTDC/CTM/100163/2008, Total budget: 161.620,00€, ITN budget: 6.600,00€, Prime Contractor: IST (Patrícia Carvalho), ITN Coordinator: E.Alves.</i>	960,00 €
<i>Support of Public and Industrial Research Using Ion Beam Technology (SPIRIT), Seventh Framework Programme: Capacities Specific Programme Research Infrastructures, Grant agreement No 227012-CP-CSA-Intra (2009/03/01), Leading Institution: Forschungszentrum, Dresden-Rossendorf, Germany: ITN Coordinator: E.Alves.</i>	---
<i>Post-mortem analysis and simulation, EFDA JET Technology Workprogramme JW10-FT-3.59: Coordinator: E. Alves.</i>	---
<i>NanoFFAWN - Functionalization, friction, adhesion, and wear at nanoscale, PTDC/CTM/68142/06 (2007-2010), Total budget: 140.000,00€, ITN budget: 35.005,00€. Prime Contractor: IST (Rogério Colaço), ITN Coordinator: E.Alves.</i>	21,003,00 €
<i>POLIFILM - Multifunctional films for flexible and plastic material applications, PTDC/CTM/69362/06 (2007-2010), Total budget: 108.000,00€, ITN budget: 18.166,00€, Prime Contractor: Univ. do Minho (Filipe Vaz), ITN Coordinator: E. Alves.</i>	---
<i>Physics and Technology of ultra-fast memories based on Si1-xGex nanocrystals with dielectric tunneling layers, PTDC/FIS/70194/06, (2007-2011), Total budget: 0,00€, ITN budget: 25.560,00€, Prime Contractor: Univ. do Minho (Maria de Jesus), ITN Coordinator: E.Alves.</i>	---
<i>Structure of low dimension diluted magnetic oxides, PTDC/FIS/72843/06 (2007-2010), Total budget: 0,00€, ITN budget: 34.300,00€. Prime Contractor: Univ. Aveiro (Nikolai Sobolev), ITN Coordinator: E.Alves.</i>	10.254,13€
<i>Designing ultra-fine textured microstructures by laser floating zone – LaFlorZone, PTDC/CTM/66195/2006 (2007-2009), Total budget: 0,00€, ITN budget: 0,00€, Prime Contractor: Univ. Aveiro (Florinda Costa), ITN Coordinator: E.Alves.</i>	4.732,50€
<i>Fusion Energy Material Science (FEMaS), Euraton Seventh Framework Programme for Nuclear Research and Training, Grant agreement No 224752-CA, Leading Institution: Max-Planck Institut für Plasmaphysik, Garching, Germany, ITN Coordinator: E.Alves.</i>	16.293,61€
<i>Ternary and quaternary nitride alloys for lattice matched heterostructures: Novel materials for high efficiency field effect transistors and optoelectronic devices, PTDC/FIS/65233/2006; (2007-2010). Total budget: 153.240,00€, ITN budget 93.720,00€. Prime contractor: ITN (K. Lorenz); ITN Co-ordinator: K. Lorenz.</i>	45.972,00€
<i>Ion beam modification and neutron irradiation studies of wide bandgap semiconductor hetero- and nanostructures, PTDC/CTM/100756/2008; (2010-2013). Total budget: 180.000,00€, ITN budget: 13.1028,00€. Prime contractor: ITN (K. Lorenz); ITN Co-ordinator: K. Lorenz.</i>	36.000,00€
<i>Rare Earth doped GaN quantum dots for efficient light emitters, bilateral collaboration with the CEA-Grenoble (EGIDE (France) / GRICES (Portugal); (2008-2010). Total budget: €12.000,00, ITN budget: 6.000,00€. Prime contractor: ITN (K. Lorenz); ITN Co-ordinator: K. Lorenz.</i>	---

RESEARCH PROJECTS

<i>The role of In in III-nitride ternary semiconductors</i> , CERN-INTC-2008-038/P-251; (2009-2010). Total budget: 0,00€, ITN budget: 0,00€, Prime contractor: ITN (K. Lorenz); ITN Co-ordinator: K. Lorenz.	---
<i>INCA: Characterisation of crucial mineral resources for the development of renewable energy technologies: The Iberian Pyrite Belt ores as a source of indium and other high-technology elements</i> , PTDC/CTE-GIN/67027/2006, 2007-2010. Total budget: 90.000,00€, ITN budget: 9.600,00€. Prime contractor: INETI/CREMINER-FCUL Co-ordinator: DIOGO NAMORADO ROSA Partners: FCUL, ITN: L.C. Alves.	---
<i>Comparative study of different doping processes in semiconductor nanowires (CRUP bilateral cooperation agreement AE-70/08)</i> , Univ. Nova de Lisboa, ITN, Univ. Complutense Madrid, Dep. Física de Materiales. Portuguese Coordinator: R.C. da Silva.	---
<i>Nanostructured magnetic nitrides</i> , Proj. FTC-PTDC/FIS/102270/2008. ITN budget: 44.544,00€; ITN Coordinator: R.C. da Silva.	---
<i>Free-charge carrier properties and doping mechanisms of InN-based materials</i> , PTDC/FIS/100448/2008, 2010-2012. Total budget: 188.000,00€, ITN budget: 136.580,00€. Prime contractor: ITN (Dr. Vanya Darakchieva); ITN Co-ordinator: Dr. Vanya Darakchieva.	37.600,00€
<i>Ion-implanted magnetic nanolayers of wide band gap semiconductors for spintronics applications</i> , PTDC/FIS/66262/2006, Total budget € 157.980,-, ITN budget € 50.766,-, Prime Contractor: ITN (U. Wahl); ITN Coordinator: U. Wahl 2010	30.459,60€
Submitted and approved	
<i>Analysis of carbon-13 deposition near gas injection region from C27</i> , EFDA JET Technology Workprogramme, JW11-FT-3.65, ITN Coordinator: E.Alves.	---
<i>Material transport and erosion/deposition in the JET torus</i> , EFDA JET Technology Workprogramme, JW11-FT-3.68, ITN Coordinator: E.Alves.	---
<i>Ion beam modification of novel III-nitride hetero- and nano-structures</i> , bilateral collaboration DAAD (Germany) / FCT (Portugal); (2011-2012), Total budget: 0,00€, ITN budget: 0,00€. Prime contractor: ITN (K. Lorenz); ITN Co-ordinator: K. Lorenz.	---
Submitted	
<i>Solid State Lighting Redefined by Bandgap Engineering Techniques</i> , FP7-NMP-2011-SMALL-5; (2012-2014), Total budget: 3.852.730,00€, ITN budget: 760.000,00€, Prime contractor: ITN (K. Lorenz); ITN Co-ordinator: K. Lorenz.	---
<i>Ion Beam Applications For Novel Nitride Semiconductors</i> , ERC starting grant, Total budget: 1.499.640,00€, ITN budget: 1.499.640,00€, Prime contractor: ITN (K. Lorenz); ITN Co-ordinator: K. Lorenz.	---
Total budget	217.242,84

Condensed Matter Physics

Current Projects

2010 ITN budget in €

<i>Hybrid materials for biomedical applications</i> , Contract PTDC/CTM/101115/2008 (2010-2013), Total budget: 125.000 €, ITN budget: 51.072 €	10.214,40
Prime Contractor: Univ. de Aveiro (I.M.M. Salvado), ITN Coordinator: F.M.A. Margaça	

Approved Projects

<i>Preparation of polymeric materials catalytically actives on biodiesel production by vegetable oils methanolysis</i> , Contract PTDC/CTM-POL/114579/2009, Total budget: 146.524,00 € , ITN budget: 8.160,00 €
Prime Contractor: Fundação da Faculdade de Ciências e Tecnologia (J. Marques Vital), ITN Coordinator: L.M. Ferreira

Total budget 10.214,40

Biomedical Studies

Current Projects

	2010 - ITN budget in €
<i>The relationship of circulating biomarkers of apoptosis and endothelial function with the plaque composition using VH IVUS (2009-2012); PIC/IC/82734/2007; Total budget € 155 000</i>	
Co-ordination: ITN (Teresa Pinheiro); Partners: Hospital de Santa Marta (Rui Cruz Ferreira); Cooperativa de Ensino Superior Politécnico e Universitário, (Maria do Céu Monteiro); FFC-UL Fundação da Faculdade de Ciências da Universidade de Lisboa – CESAM (Ana Maria Viegas-Crespo) & CEAUL (Antónia Turkman).	22.984,68
<i>Inflammation markers in acute coronary syndrome (2010)</i>	
Total budget € 25 000*; Prime contractor: Dept. Cardiology Sta. Marta Hospital Co-ordinator: R. CRUZ FERREIRA; Partners: ITN (T. PINHEIRO); * FACSCalibur Flow Cytometer Leasing - administrated by Liga dos Amigos do Hospital de Santa Marta.	0*
<i>Study of NPs interaction with cells, using methodologies based on IBA (Ion Beam Analysis) techniques (2010-2013); Total budget € * ;Prime contractor: CMAM, Universidad Autónoma Madrid, Co-ordinator: M. DOLORES YNSA; Partners: ITN (T. PINHEIRO), CIBA, University Singapore (FRANK WATT; * Budget administrated by Universidad Autónoma Madrid.</i>	0*
<i>Exhaled breath condensate: A tool for non-invasive evaluation of pollutant exposition?(2007-2010); FCT - PTDC/AMB/65828/2007; Total budget €199.366,00; Prime contractor: Instituto de Soldadura e Qualidade Co-ordinator: S. M. ALMEIDA; Partners: ITN (T. PINHEIRO); Hospital de Santa Maria (A. BUGALHO DE ALMEIDA)</i>	0
<i>PM_{fugitive}: Mitigating the Environmental and Health Impacts of Particles from Fugitive Emissions (approved –waiting contract); FCT - PTDC/AAC-AMB/098825/2008; Total budget €126.000,00</i>	
Prime contractor: ITN, Co-ordinator: SUSANA M.L. ALMEIDA; Partners: Instituto de Soldadura e Qualidade; SAPEC; * See URSN section	0*
Total budget	22.984,68

Materials Characterization with Radioactive Nuclear Techniques

Current Projects

	2010 ITN budget in €
Perturbed Angular Correlations and Emission Channeling Experiments at ISOLDE-CERN (ITN coordinator, J.G. Correia, U. Wahl et al.) CERN-FP-109272-2009 with budget of €90000 (from the 1 st January 2010 up to the 31 st December 2010).	18.000,00
Perturbed Angular Correlations and Electron Channeling Experiments at ISOLDE - applied materials research with nuclear techniques, training and development (ITN coordinator, J.G. Correia, U. Wahl et al.) CERN-FP-116320-2010, with budget of €120000 (approved in 2010 to start the 1 st January 2011).	
Total budget	18.000,00

Radiation Technologies: Processes and Products

Current Projects

	2010 ITN budget in €
<i>Characterization and conservation of cultural heritage: neutrons and ionizing radiation in artwork; (RADIOART) - PTDC/HIS-HEC/101756/2008, 2010-2012; Total budget 199.728,00€, ITN budget 151.008,00€ ; Prime contractor: ITN Co-ordinator: M. Isabel Prudêncio, Portugal</i>	28.000,00
<i>Pulsed Power advanced applications; QREN 1600 A2P2, 2009-2011; Total budget ? €, ITN budget 390 € in materials; Prime contractor: Co-ordinator: Luis Redondo ISEL, Portugal</i>	0,00
<i>CHESTNUTSRAD - Tratamento Alternativo para a Conservação da Castanha; QREN</i>	

PUBLICATIONS

13198/2010, 2010-2013; Total Budget 389.584,55 €, ITN budget: 4.687,17 € and 7000€ in materials; Prime contractor: AgroAguiar - Comércio de Produtos Alimentares, Lda Co-ordinator: IPB Instituto Politécnico de Bragança, Portugal UM - Universidade do Minho Expert services: M. Luisa Botelho ITN, Portugal	994,36
<i>Kinetic study of biorecalcitrant compounds degradation by pulse radiolysis</i> ; PTDC/QUI-QUI/104229/2008, 2010-2012; Total Budget 199.959,00€, ITN budget: 186.639,00€ Prime contractor: ITN Co-ordinator: M. Luisa Botelho, Portugal	39 991,80
Total budget	68.986,16
Approved Projects	
“Application of Ionizing Radiation on the Cork Wastewater Treatment” IAEA, Coordinated Research Project, 2011-2012. Total budget 4000,00€, ITN budget 4000,00€ Prime contractor: ITN Co-ordinator: M. Luisa Botelho, Portugal	0,00
Total budget	68.986,16

Nuclear Instruments and Methods

Current Projects

	2010 ITN budget in €
<i>Coupling catalysts and non-thermal plasma, for low temperature decomposition of organic volatile compounds</i> , PTDC/EQU-EQU/65126/2006, (2007-2010) Total budget: 127.200,00 €, ITN budget: 115.200,00 €, Prime contractor: ITN; Coordinator: J. Branco; ITN/UCQR; Co-participation N. Pinhão, A. Janeco, ITN/UFA.	38.160,00
<i>Participação do ITN na experiência n_o ToF-Ph2 no CERN, 4^o ano</i> , CERN/FP/109314/2009, Total budget: 30.000,00 €, Prime contractor: ITN; Coordinator: I. Gonçalves, ITN/UFA.	6.000,00
<i>ANDES, Accurate Nuclear Data for Nuclear Energy Sustainability</i> , 7 th Framework Programme, Grant Agreement No 249671, Total Budget 20.000,00 €, Prime contractor: CIEMAT.	22.000,00
Total budget	66.160,00