

Research Projects



Nuclear Engineering

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

Current Projects

2002 ITN budget in €

- Fast Neutron Irradiation of Electronic Components for the LHC/CERN in the Portuguese Research Reactor, CERN/P/FIS/43774/2001. March 2002-February 2003 Total budget € 20000, ITN budget € 20000 Prime contractor: ITN Co-ordinator: J.G. MARQUES Partners: Univ. Complutense Madrid, Spain (J.A.AGAPITO), CERN (J. CASAS)	20 000
- Fast Neutron Irradiation of Electronic Components for the LHC/CERN in the Portuguese Research Reactor, CERN/P/FIS/40127/2000. March 2001-February 2002 Total budget € 44892, ITN budget € 44892 Prime contractor: ITN Co-ordinator: J.G. MARQUES Partners: Univ. Complutense Madrid, Spain (J.A.AGAPITO), CERN (J. CASAS)	0
- <i>SIMPLE-Lx: a Portuguese contribution to the SIMPLE dark matter search</i> , POCTI/1999/FIS/32493, Oct. 2001-Sept. 2003 Total budget € 74820, ITN budget € 74820 Prime contractor: ITN Co-ordinator: T. GIRARD, J.G. MARQUES	25 000
- Participation of ITN in the n-TOF experiment (PS213) at CERN, CERN/FNU/43769/2001, January 2002-December 2002 ITN budget € 65000 ITN Co-ordinator: P. VAZ	65 000
- <i>Preliminary design studies of an experimental accelerator-driven system</i> , European Commission Research Directorates. November 2001-October 2004 Total budget € 6000000, ITN budget € 70000 Prime contractor: Framatome ANP SAS Co-ordinator: B. CARLUEC ITN Co-ordinator: P. VAZ Partners: A total of 25.	28 000
- <i>Code of practice for BNCT Dosimetry in Europe</i> , EC / SMT4-CT98-2145. Jun. 1998-Jun. 2002 Total budget € 738221, ITN budget € 39904 Prime contractor: NRG Co-ordinator: FINN RASMUSSEN ITN Co-ordinator: I.C. GONÇALVES	8 016
- <i>Thermoluminescent Dosimetry in mixed fields of photons and neutrons</i> , CERN/P/FIS/43771/2001 Feb. 2001- Feb. 2002 Total budget : € 39904, ITN budget € 39904 Prime contractor: ITN Co-ordinator: I.C.GONÇALVES	39 904
- <i>Artificial neural network characterisation of the thickness and composition of thin to ultra-thin AlN(O) layers</i> , IAEA 11317/R1Regular Budget Fund. Oct. 2001-Sept. 2002 Total budget € 5000, ITN budget € 5000 Prime contractor: ITN Co-ordinator: N.P. BARRADAS	2 500
- <i>Determination of the stopping power of He in oxides and nitrides</i> IAEA 11317/R1Regular Budget Fund. Oct. 2002-Sept. 2003 Total budget € 5000, ITN budget € 5000 Prime contractor: ITN Co-ordinator: N.P. BARRADAS	2 500
- <i>Artificial neural networks for ion beam analysis</i> , POCTI/CTM/40059/2001 Oct. 2002 - Sept. 2004 Total budget € 15.540, ITN budget € 15.540 Prime contractor: ITN Co-ordinator: N.P. BARRADAS	6 216

RESEARCH PROJECTS

<p>- <i>ThermoPhotoVoltaic cell based on GaSb</i>, European Commission Research Directorates, RTN2-2001-00454 Feb. 2002- Jul. 2004 Total budget: € 1475000 , ITN budget € 142000 Prime contractor: EPM-MADYLAM/ENSHMG, France Co-ordinator: T. DUFFAR ITN Co-ordinator: N.P. BARRADAS</p>	<p>49 687</p>
<p>- <i>Emission channeling/blocking using thermal neutron induced nuclear reactions for the study of defect structures in single crystals</i>, Sapiens FIS/35322/99-00 Dec. 2000- Nov. 2002 Total budget: € 44892, ITN budget € 44892 Prime contractor: ITN Co-ordinator: A. KLING</p>	<p>14 964</p>
<p>Total budget 261 787</p>	

Submitted Projects

	ITN budget in €
<p>- <i>Participation of ITN in the n-TOF experiment (PS213) at CERN (second year)</i> January 2003-December 2003 ITN Co-ordinator: P. VAZ</p>	<p>180 000</p>
<p>- <i>Enhancement of multipurpose irradiation facilities at the Portuguese Research Reactor" Concurso Alfa-FCT</i>. January 2003-December 2004 ITN Co-ordinator: I.C. GONÇALVES</p>	<p>152 100</p>
<p>- <i>Fast Neutron Irradiation of Electronic Components for the LHC/CERN in the Portuguese Research Reactor</i>, FCT. March 2003-February 2004 Prime contractor: ITN Co-ordinator: J.G. MARQUES Partners: Univ. Complutense Madrid, Spain (J.A.AGAPITO), CERN (J. CASAS)</p>	<p>60 000</p>
<p>Total budget 392 100</p>	

Applied Dynamics

Current Projects

	2002 ITN Budget in €
<p>- <i>Simulation and identification of complex dynamic systems (ROTDYN)</i>, SAPIENS, Jan. 2001-Dez. 2003 Total budget: 43 395 €, ITN budget: 36 661 € Prime contractor: ITN Co-ordinator: J. ANTUNES</p>	<p>7 357</p>
<p>- <i>Dynamical modelling of nonlinear systems (EXCITE)</i>, SAPIENS Contract, Jan. 2001- Dez. 2002 Total budget: 39 903 €, ITN budget: 36 262 € Prime contractor: ITN Co-ordinator: J. ANTUNES</p>	<p>11 921</p>
<p>- <i>Optimisation of flexible-rotor balancing</i>, EDP/CPPE Contract Jan. 2000 - Apr. 2003 Total budget: 39 903 €, ITN budget: 39 903,83 € Prime contractor: ITN Co-ordinator: J. ANTUNES</p>	<p>13 966</p>
<p>Total budget 33 244</p>	

Radiological Protection and Nuclear Safety

Current Projects

2002 ITN budget in 2002 in €

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|--|--------|
| - <i>Aquifers and Surface-Waters in the Chernobyl Area-Observations and Predictive Evaluation</i> (Contract ERBIC 15- CT98-0205), September 98- September 2001.
Total budget 240000 €, ITN budget 27500 €
ITN Co-ordinator: M.J. MADRUGA
Prime contractor: Centre for Ecology and Hydrology (CEH), U.K., Co-ordinator: J. Smith | 2 724 |
| - <i>Tropical and Sub-Tropical Cost-Effective Tools for an Integrated Risk Assessment of Wetlands</i> (Contract EU IC 18-CT98-0264) 1999-2001.
Total budget (400 000 EUROS – ITN/80 000 EUROS)
ITN Co-ordinator: F.P. CARVALHO
Prime Contractor: University of Coimbra/IAV | 0 |
| - <i>Assessment of Environmental Contamination Around Abandoned Uranium Mines for Improved Radiological Protection and Planning of Remediation Measures (IAEA Model Project POR/4/015)</i> , 2001-2003.
Total budget (equipment and fellowships)
ITN Co-ordinator: F.P. CARVALHO
Prime Contractor: ITN | 30 662 |
| - <i>National Regulatory Control and Occupational Radiation Protection Programmes (IAEA Regional Project- Europe RER/9/062)</i> , 2001-2002.
Total budget (experts and fellowships)
ITN Co-ordinator: F.P. CARVALHO
Prime Contractor: ITN | 15 000 |
| - <i>European Radon Research and Industry Collaboration Concerted Action- ERRICCA-2:</i> European Comission Contract n° FIRI-CT-2001-20142, Jan. 2002- Jan. 2005
ITN budget 18848 €
ITN Co-ordinator: M.C. FAÍSCA
Prime contractor: Building Research Establishment (UK) Co-ordinator: Chris Scivyer | 4 876 |
| - <i>Epidemiological Study of the Effects of Uranium Mining Residues.</i> Ministry of the Health Contract 2002-2004
Partnership: INSA, IGM, ARS Centro, ITN/PRSN
Total budget 500000 €
ITN Co-ordinator: F.P. CARVALHO
Prime contractor: INSA | 0 |
| - <i>Synthesis, characterization and biodistribution of ¹⁵³Sm, ¹⁶⁶Ho and ¹⁷⁷Lu-bisphosphonates.</i>
Partners: INETI-Maria do Céu Costa; University of Coimbra, Chemistry Dep. - R. Fausto; Centro Nuclear la Reina, Chile-Mónica Chandía PRAXIS/2/2.1/SAU/14036/98, Mar. 1998-Oct.2001.
Total Budget: 65000 €.
Prime contractor: ITN- M.A. NEVES | 6 500 |
| - <i>Novel indazolebisphosphonates for bone mineral metabolism: synthesis, molecular modelling and pharmacological activities,</i> POCTI/QUI/39368/2001. Jan 2002- Dec. 2004
Total budget: 78180 €, ITN –5000 €
ITN Co-ordinator: M.A. NEVES
Prime contractor: INETI Co-ordinator: Fátima Teixeira. | |
| - <i>Synthesis, characterization and biodistribution of ^{99m}Tc-carboxylbiguanides.</i> June 2002-June 2004. ITN Co-ordinator: M.A. NEVES
Partners: INETI - Maria do Céu Costa; FCL-Fátima Frazão; NESCA-South Africa - Jan Zeevaat. | |

RESEARCH PROJECTS

- ¹⁵³Sm-glycoproteins and glycolipids labelling. Jan.2002-Jan.2004. Co-ordinator: University of Coimbra, Dep. Bioquímica, C. Geraldes. Partners: University of Coimbra IBILI, JJ. Pedroso de Lima; University of Minho, Dep. Química, JP. André. ITN Co-ordinator – M.A. NEVES 0

Total budget 59 762

Approved Projects

ITN budget in €

- *Vertical Profiles of Radioactive Aerosol Constituents Over Portugal (VPRACOP) (2003)*
 ITN Co-ordinator: F.P. CARVALHO
 Prime contractor: ITN 0
 Free access to atmospheric research facility (instrumented aeroplane from U.K.)

Total budget 0

Submitted Projects

ITN budget in €

- *Estudio del comportamiento de los radionucleidos en ecosistemas naturales el bosque mediterráneo Hispano-Portugués y los recursos hídricos fluviales. Repercusiones socioeconómicas y ambientales. INTERREG IIIA Spain - Portugal Programme (2003-2004)* 120 000
 Total budget 600000 €, ITN budget 120000 €
 ITN Co-ordinator: F.P. CARVALHO
 Prime contractor: University of Huelva, Spain; Co-ordinator: J.P. Bolivar

- *Dosimetric and in vitro studies in human breast cancer cell lines by beta emitters*
 Project: ITN- Augusto Oliveira (co-ordinator), Maria dos Anjos Neves, Berta Martins, INETI- Maria do Céu Costa, IPATIMUP-Fátima Gartner. Submitted to FCT May 2002. 3 years 71 800
 Total budget: 85000€, ITN-71800 €

Total budget 191 800

Rejected Projects

ITN budget in €

- *Environmental Contamination and Radiological risk Assessment in Uranium Mining Regions* (submitted at Fundação para a Ciência e Tecnologia)
 ITN Co-ordinator: F.P. CARVALHO
 Prime contractor: ITN

- *Unsupervised Feature Selection and classification of Comet Assay Radiation Induced DNA Damage:*
 ITN Co-ordinator: J.H. PEREIRA LUIS
 Prime contractor: Instituto Nacional de Engenharia e Tecnologia Industrial ,Lisbon, Portugal

- *Genetic Effects in Populations Exposed to Radon:*
 Prime contractor: Univ. Nova de Lisboa (FCM) Centro de Investigação em Genética Molecular Humana

- *Risk Assessment and Environmental and Health Impact of Depleted Uranium Containing Ammunitions and Other Matrices* (submitted at Fifth Framework Programme, 7.1-The Fight against Major Natural and Technological Hazards, 2- Technological Risks)
 ITN Co-ordinator: F.P. CARVALHO
 Prime contractor (Co-ordinator): JRC/ITU

Total budget

New Materials and Compounds

Nuclear Solid State Physics Using Ion Beams

Current Projects

	2002 ITNBudget in €
- Magnetostructural modulation in perovskite derivatives with strong electron correlations, FCT-POCTI/P/35462/CTM/00, Oct. 2000- Oct. 2002 Total budget: 199519€, ITN budget 18456€ Prime contractor: Universidade de Aveiro; ITN Co-ordinator: E. ALVES	2 094
- Effect of Addition of Si on the Mechanical and Physical properties of TiN and (Ti,Al)N, FCT-POCTI/P/32670/CTM/00, Oct. 2000- Oct. 2002 Total budget: 39904€, ITN budget 5986 € Prime contractor: Universidade do Minho; ITN Co-ordinator: E. ALVES	2 394
- <i>Surface composition investigations of Li₄SiO₄ and Li₂TiO₃ exposed to long term annealing and Compatibility of structural and cladding materials used in irradiation tests with ceramic breeders</i> , EFDA (European Fusion Development Agreement), Jan 2001- Dec. 2002 Total budget: 25000€, ITN budget 25000€ Prime contractor: ITN Co-ordinator: E. ALVES	0
- <i>Impurity measurements on Eurofer 97</i> EFDA (European Fusion Development Agreement), Jan 2001- Dec 2002 Total budget: 12500€, ITN budget 12500€ Prime contractor: ITN Co-ordinator: E. ALVES	0
- <i>Report on study of the impact of irradiation on electrical conductivity of Be pebble beds</i> EFDA (European Fusion Development Agreement), Jan 2001- Dec 2002 Total budget: 25000€, ITN budget 25000€ Prime contractor: ITN Co-ordinator: E. ALVES	25 000
- <i>Complete Eurofer characterisation of the typical microstructure and modelling of the phase transformation behaviour</i> EFDA (European Fusion Development Agreement), Jan 2001- Dec 2002 Total budget: 15000€, ITN budget 15000€ Prime contractor: ITN Co-ordinator: E. ALVES	15 000
- <i>Detailed metallurgical characterisation of the 2 improved ODS batches.</i> EFDA (European Fusion Development Agreement), Jan 2002- Mar 2003 Total budget: 15000€, ITN budget 15000€ Prime contractor: ITN Co-ordinator: E. ALVES	15 000
- <i>Rare Earth doped Nitrides for high Brightness Electroluminescent emitters (RENIBEL)</i> Research and Training Networks EC. (Março 2002- Março 2004) Total budget: 1498182€, ITN budget 187298€ Prime contractor: Univ. of Strathclyde (UK), ITN Co-ordinator: E. ALVES	65 518
- <i>e-γ Perturbed Angular Correlations and Emission Channeling Studies at ISOLDE/CERN, FCT</i> CERN-FIS-43725-2001; Jan. 2002 – Jan 2003 Total budget: 75000 €, ITN budget 75000 €, Prime contractor: ITN Co-ordinator: J.G. CORREIA	75 000
- <i>Ion Implantation in Ceramic Oxides (MgO)</i> Project CRUP AE 43-01, 2000-2003 Partners, Univ. Carlos III, (Espanha), ITN Co-ordinator: R.C. DA SILVA, E. ALVES Budget: 3 000 € (travelling)	3 000
- <i>ThermoPhotoVoltaic cell based on GaSb</i> , European Commission Research Directorates, RTN2-2001-00454, 1 January 2002 - 30 June 2004 Total budget: 1475000 €, ITN budget 142000 €, Prime contractor: EPM MADYLAM/CNRS; ITN Co-ordinator: N.P. BARRADAS	0

RESEARCH PROJECTS

<p>- <i>Ion Beam Modification and Optical Characterization of Optical Materials</i> ICCTI/CSIC bilateral cooperation Portugal-Spain (2002/2003) ITN - ICMM (C. Zaldo)), ITN Co-ordinator: A.KLING</p>	0
Total budget 203 006	

Approved Projects

	ITN budget in €
<p>- <i>Self-Assembled Silicon Nano-Crystals.</i> POCTI/P/35462/CTM/00, Oct. 2002- Oct. 2005 Total budget 122775 €, ITN budget 16625€ Prime contractor: IST, ITN Co-ordinator: E. ALVES</p>	16 625
<p>- <i>Morphological Characterization and Impurity Studies of SiCSiC composites.</i> EFDA (European Fusion Development Agreement), Jan. 2003- Dec. 2003 Total budget: 12500€, ITN budget 12500€ Prime contractor: ITN Co-ordinator: E. ALVES</p>	12 500
<p>- <i>Detailed characterisation of EU ODS.</i> EFDA (European Fusion Development Agreement), Jan. 2003- Dec. 2004 Total budget: 12500€, ITN budget 12500€ Prime contractor: ITN Co-ordinator: E. ALVES</p>	12 500
Total budget	41 625

Submitted Projects

	ITN budget in €
<p>- <i>Formation and study of nanocrystalline precipitates in aluminium and magnesium oxides.</i> POCTI/ /02 Total budget 122 775 €, ITN budget 16 625€ Prime contractor: ITN Co-ordinator: E. ALVES</p>	16 625
<p>- <i>Formation and study of nanocrystalline precipitates in aluminium and magnesium oxides.</i> POCTI/ /02 Total budget 122 237 €, ITN budget 50 987€ Prime contractor: ITN Co-ordinator: E. ALVES</p>	50 987
<p>- <i>Doped ZnO by ion implantation as a material for optoelectronic and spintronics applications.</i> POCTI/ /02 Total budget 141 351€, ITN budget 67 238€ Prime contractor: Universidade de Aveiro; ITN Co-ordinator: E. ALVES</p>	67 238
<p>- <i>Development of a new decorative MeNxOy and MeCxOy Thin Film system, with with Me = Ti, Cr, Zr and Al.</i> POCTI/ /02 Total budget 89 473€, ITN budget 10 000€ Prime contractor: Universidade do Minho; ITN Co-ordinator: E. ALVES</p>	10 000
<p>- <i>Optical and structural characterisation of In(x)Ga(1-x)N based nano-structures for light emitting devices.</i> POCTI/ /02 Total budget 75109 €, ITN budget 30109€ Prime contractor: Universidade de Aveiro; ITN Co-ordinator: E. ALVES</p>	30 109
<p>- <i>New biomarkers from nanocrystalline II/VI semiconductors.</i> POCTI/ /02 Total budget 177 075 €, ITN budget 60 150€ Prime contractor: Universidade de Aveiro; ITN Co-ordinator: E. ALVES</p>	60 150
<p>- <i>Magnetic Nanoclusters in Semiconductors Synthesized by Ion Implantation..</i> POCTI/ /02 Total budget 111 000 €, ITN budget 37 500€</p>	37 500

RESEARCH PROJECTS

Prime contractor: Universidade de Aveiro; ITN Co-ordinator: E. ALVES

- *Upgrade of the ITN Ion Beam Laboratory*
Project SAPIENS-EQUI01/CONC-REEQ/82/2001
Budget: 4 056 000
Prime contractor: ITN Co-ordinator: E. ALVES
- *Very High Resolution Microscopies Facility*
Project SAPIENS-EQUI01/CONC-REEQ/82/2001
Budget: 3 292 150 €
Prime contractor: ITN Co-ordinator: R.C. DA SILVA
- *Passivation of SiGe alloys by hydrogen and deuterium implantation at high temperature*
POCTI/ /02
Total budget 122 775 €, ITN budget 16 625€
Prime contractor: ITN Co-ordinator: A. KLING
- *e^- - γ Perturbed Angular Correlations and Emission Channeling Studies at ISOLDE/CERN, FCT*
CERN / FNU / 49503 / 2002, Jan. 2003 – Jan 2004
Total requested budget: 97 900 €, ITN budget 97 900 €
Prime contractor: ITN Co-ordinator: J.G. CORREIA

Total budget 7 735 284

- Expression of Interest for 6th EU Framework program
“Widebandgap Materials and Device Technology”
Leader: University of Cambridge
41 participating institutions from 12 countries
- Expression of Interest for 6th EU Framework program
“Nanotechnologies and Nanosciences”
Leader: Giancarlo Salviatti, IMEM-CNR, Parma, Italy
39 participating institutions from 10 countries
- Expression of Interest for 6th EU Framework program
- “Nanosized Ferroelectrics and Dielectrics for Multifunctional Electronics -FERROFUN”
Leader: G. Padeletti (Istituto per lo Studio dei Materiali Nanostrutturati, Rome)
20 participating institutions from 8 countries
- Expression of Interest for 6th EU Framework program
“Ferroelectric Nanodomain Superlattices and other Devices for Technological Applications – FERRONANOTECH”
Leader: E. Diéguez (Universidad Autónoma de Madrid)
35 participating institutions from 14 countries

Condensed Matter Physics

Current Projects

	2002 ITN Budget in €
- <i>Development of a Variable Geometry Multichannel Neutron Collimator</i> , POCTI/1999/FIS/34449, Out. 2000-Out. 2002 (applic. for extension until June 2003 is pending) Total budget approved 30000€, ITN share 30000 € Prime contractor: ITN, Co-ordinator: A.N. FALCÃO	0
- <i>Development of New Instruments</i> : IAEA/11361, Set. 2000- Set. 2003 Total budget 18900€, ITN share 18900 € Prime contractor: ITN. Co-ordinator: F.G. CARVALHO Partner: Research Institute for Solid State Physics and Optics, Budapest, Hungary, L. CSÉR	1 900
- <i>Installation of the Two-Axis Diffractometer DIDE</i> , ITN funds Prime contractor: ITN, Co-ordinator: A.N. FALCÃO	22 809
- <i>Installation of the Small Angle Neutron Scattering Instrument EPA</i> , ITN funds Prime contractor: ITN, Co-ordinator: F.M.A. MARGAÇA	5 084
- <i>Caracterização estrutural e propriedades físicas de junções de spin magnética</i> . POCTI/CTM/41653/2001. Total budget 95500 €, ITN share 68680 € Programa POCTI, Sapiens, Domínio Ciência de Materiais e Tecnologia Leader institution: ITN, Co-ordinator: A.D. SEQUEIRA and N. BARRADAS Partners: INESC.	32 200
- <i>Electrical assisted LFZ processing for tailoring textured ceramic materials</i> . Total budget 75 000 €, ITN share 5332 € POCTI/CTM/35492/99 Leader institution: Univ. de Aveiro, Partners: ITN. ITN, Co-ordinator: A.D. SEQUEIRA	5332
Total budget	67 325

Approved Projects

	ITN budget in €
- <i>SiGe/Si Heterojunctions Grown on Virtual Substrates Strain Relaxation and Self-diffusion</i> , "GESICA". POCTI/CTM/41918/2001 Total budget 78750€, ITN share 78750 € Prime contractor: ITN, Co-ordinator: A.D. SEQUEIRA Partners: Warwick University	78 750
Total budget	78 750

Submitted Projects

	ITN budget in €
- <i>MCM-41 - Regularidade e estabilidade de materiais com estrutura mesoporosa ordenada contendo alumínio e titânio</i> . Total budget 80 000 € ITN Co-ordinator A.D. SEQUEIRA Prime contractor: Évora University, Co-ordinator: M. CARROTT	24 000
- <i>Upgrading of the national facility High-temperature Materials Laboratory and construction of a second beam line for a high-temperature Small-angle Scattering Spectrometer</i> . Project SAPIENS-EQUI01/CONC-REEQ/82/2001 Total budget 549000 €, ITN budget 549000€ Prime contractor: ITN Co-ordinator: A.D. SEQUEIRA	549 000
- <i>Hybrid materials prepared by irradiation</i> . Total budget requested: € 99025 Prime contractor: ITN. Co-ordinator: F.M.A. MARGAÇA. Partner: Univ. Aveiro, I.M.M. SALVADO	69 200
Total budget	642 200

Solid State

Current Projects

2002 ITN budget in €

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- *Films and Multilayers with Uranium and Iron: Preparation and Magnetism.*
POCTI/CTM/12068/98, Set. 1998-Set. 2003.
Total budget: 89 780 €, ITN budget 53 760 € 3 667
Prime contractor: ITN Co-ordinator: A.P. GONÇALVES
Partner: Universidade de Lisboa, Fundação da Fac. Ciências, M. GODINHO.
- *Molecule Magnets Based on Decamethylmetallocenes and DCNQI Derivative Planar Acceptors*
POCTI/39601/QUI/2001
Total budget 71400 €, ITN budget 60300 € 23 060
Prime contractor: ITN Co-ordinator: V. GAMA
Partner: IST, M.T. DUARTE
- *Magnetic properties of metalloproteins: an integrated approach.* POCTI / 35324 / FIS / 2000.
January 2001 – January 2004.
Total budget: 89 780 €, ITN budget 8 105 € 8 105
ITN Co-ordinator: J.C. WAERENBORGH.
Prime contractor: Universidade de Lisboa, Fundação da Fac. Ciências. Co-ordinator:
L. FERREIRA.
- *Heavy Fermion properties of the $(U_{1-x}Th_x)_2Pt_2In$ and $(U_{1-x}Th_x)_2Pd_2Sn$ systems,*
(POCTI/FIS/12070/1998)
Total budget : 31923 Euros (6400×10^3 PTE), ITN budget: 15962 Euros (3200×10^3 PTE)
Prime contractor : ITN Co-ordinator: G. BONFAIT 1 735
Partner: FCUL, Universidade Nova de Lisboa, M. Godinho
- *COLOURSTONE - Heat induced colour modifications in carbonate stones,*
POCTI/CTA/38339/2001. May 2002 – November 2003.
Total budget: 30 000 €, ITN budget 1 437 € 718
Prime contractor: Centro de Petrologia e Geoquímica / Lab. Mineralogia e Petrologia, IST.
Co-ordinator: L. AIRES DE BARROS. ITN Co-ordinator: J.C. WAERENBORGH.
- *Modelling of pollutant dispersion around waste disposal sites: a mineralogical, hydrogeological and chemical study,* POCTI/CTA/43390/01. May 2002 – November 2003.
Total budget 30 000 €, ITN budget 1 370 € 0
ITN Co-ordinator: J.C. WAERENBORGH.
Prime contractor: Fund. Fac. Ciências, Univ. Lisboa. Coordinator, J. FIGUEIRAS.
- *Synthesis, Crystal Growth and Properties of New Intermetallic Compounds with f-Elements,*
ICCTI/CNRS, Proc.423/CNRS, Jan. 2002-Dez. 2002. 1 197
Total budget: 800 €, ITN budget 400 €
Prime contractor: ITN Co-ordinator: A.P. GONÇALVES. Partner: CNRS, H. NOËL.
- *Multisulfured Based Charge Transfer Solids,* ICCTI/CSIC, Jan. 2001-Dez. 2002.
Total budget: 800 €, ITN budget 400 € 1 397
Prime contractor: ITN Co-ordinator: M. ALMEIDA
Partner: CSIC, C. ROVIRA.
- *Spin Ladder Compounds,* POCTI/ 35342/ 99, July 2000-July 2003\
Total budget: 110000 €, ITN budget 110000 € 22 000
Prime contractor: ITN Co-ordinator: M. ALMEIDA
- *Molecular Conductors based in two Multisulfured unities,* POCTI/ 1999/ CTM/ 35452, July 2000-July 2003
Total budget: 90000 €, ITN budget 45000 € 13 500
Prime contractor: ITN Co-ordinator: M. ALMEIDA
Partner: IST, R.T. HENRIQUES
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RESEARCH PROJECTS

- *Perovskite Structured Mixed Manganes Oxides. POCTI/FIS/35300/1999.*
 Total budget: 114 723 €, ITN budget: 24 540 € 3 940
 Prime contractor: Fundação da FCT UL
 ITN co-ordinator: G. BONFAIT

Total budget 79 319

Approved Projects

	ITN budget in €
- <i>Two Chain Compounds under High Magnetic Fields - CHIMAG. POCTI/FAT/39115/2001.</i> Total budget: 90000 € 36 000 Prime contractor: ITN Co-ordinator: R.T. HENRIQUES Partner: Instituto Superior de Engenharia de Lisboa, M. MATOS.	
- <i>Materials for Organic Electronics. NÉOFETs, CTM/41117/ 2001</i> Total budget 120000 € 60 000 ITN Co-ordinator M. ALMEIDA Prime contractor: Instituto de Telecomunicações, Coordinator: L.Alcácer	
Total budget	96 000

Submitted Projects

	ITN budget in €
- <i>Preparation by the sol-gel process and characterization of ferrimagnetic Fe containing glass ceramics, for medical application (FCT)</i> Total budget 100 104 € 20 000 ITN Co-ordinator: J.C. WAERENBORGH. Prime contractor: Unid. Investigação em Materiais Cerâmicos, Univ. Aveiro, M. FERREIRA DA SILVA.	
- <i>Supported iron molybdates for methanol to formaldehyde oxidation (FCT)</i> Total budget 78 750 € 37 500 ITN Co-ordinator: J.C. WAERENBORGH. Prime contractor: Inst Ciência e Engenharia de Materiais e Superfícies, Inst. Superior Técnico, Univ. Técnica Lisboa, A.P.V. SOARES	
- <i>Fluid and metal tracing in ore-forming systems through radiogenic isotopes (FCT)</i> Total budget 182 820 € 13 439 ITN Co-ordinator: J.C. WAERENBORGH. Prime contractor: Fund. Fac. Ciências, Univ. Lisboa, A. MATEUS	
- <i>AFe_xAl_{12-x} intermetallics (A = f element). Magnetic sublattice interactions (FCT)</i> Total budget 119 775 € 51 250 Prime contractor: ITN Co-ordinator: J.C. WAERENBORGH	
- <i>UX₂ (X=Fe, Ge) and UFe_{12-x}Al_x Films: Preparation and Characterization of Magnetic and Electrical Transport Properties, FCT</i> Total budget 189 982 € 83 554 Prime contractor: ITN Co-ordinator: A.P. GONÇALVES Partner: FCUL, M. Godinho; INESC, P.P. Freitas.	
- <i>Synthesis, Crystal Growth and Characterization of New f-Element Borides and Borocarbides with Ni, Pd or Pt, FCT</i> Total budget 74 960 € 74 960 Prime contractor: ITN Co-ordinator: A.P. GONÇALVES	

RESEARCH PROJECTS

- <i>Localization and dimensionality in Molecular Conductors; pressure effects, FCT</i>	
Total budget 75043 €	74 043
Prime contractor: ITN Co-ordinator: E.B. LOPES	
- <i>Study of the Dy-Fe-Sn phase diagram, FCT</i>	
Total budget 82177 €	82 177
Prime contractor: ITN Co-ordinator: L.C.J. PEREIRA	
- <i>Thiophenic Dithiolates as Building Blocks in Molecular Materials: Physical Properties-Crystal Structure Correlation, (FCT)</i>	
Total budget: 161091 €	161 091
Prime contractor: ITN Co-ordinator: I.C. SANTOS	
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	Total budget 598 014

Rejected Projects

	ITN budget in €
- <i>High temperature transport properties of ordered and disordered $Ca(Ti,Fe)O_{3-y}$ phases (FCT)</i>	
Total budget 90 000 €	15 000
Prime contractor: Unid. Investigação em Materiais Cerâmicos, Univ. Aveiro, F.M. FIGUEIREDO	
- <i>Supported iron molybdates for methanol to formaldehyde oxidation (FCT)</i>	
Total budget 65 318 €	29 304
Prime contractor: : Inst Ciência e Engenharia de Materiais e Superfícies, Inst. Superior Técnico, Univ. Técnica Lisboa, A.P.V. SOARES	
- <i>Radiogenic Isotopes in Metallogeny and Mineral Exploration (FCT)</i>	
Total budget 220 638 €	12 500
Prime contractor: Fund. Fac. Ciências, Univ. Lisboa, A. MATEUS	
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	Total budget 56 804

Environmental Sciences

Health and Environmental Studies Using Ion Beams

Current Projects

2002 ITNBudget in €

- <i>Bioavailability of lead in small mammals at a mine contaminated area in Alentejo (Central Portugal)</i> , POCTI/BFE/3991/2001 / Oct. 2002- Oct. 2005 Total budget: 120 000 €, ITN budget 20 000 € Prime contractor: CBA-FFC/UL Co-ordinator: M.L. Mathias. ITN co-ordinator T. Pinheiro	3 750
- <i>Markers of the prooxidant/antioxidant balance and characterisation of the allelic profile of apoE in inhabitants of Lisbon and Ponta Delgada</i> , POCTI/ESP/41008/2001 /Dec. 2002 - Dec. 2005 Total budget: 49 880 €, ITN budget 10 000 € Prime contractor: CBA-FFC/UL Co-ordinator: A.M. Viegas-Crespo	2 400
- <i>Contribution to the study of inflammation biomarkers in the Chronic Obstructive Pulmonary Disease (COPD)</i> , FCG-Calouste Gulbenkian Foundation SDH.IC.1.01.22 / Dec. 2001- Dec. 2004 Total budget: 44 889 € (budget managed by FCG) Prime contractor: AIDFM-FM/UL Co-ordinator: A. Bugalho de Almeida	0
- <i>Optimisation of PIXE and Nuclear Microprobe set-ups to Biomedical applications, Portugal-Spain Bilateral Cooperation, ICCTI/CSIC, 2002-2003.</i> Total budget: 2740 €, ITN budget: 1369 € Prime contractor: ITN Co-ordinator: T. Pinheiro	1 369
Total budget	7 519

Approved Projects

ITN budget in €

- <i>Quality of skin as a barrier to ultra-fine particles (NANODERM), EC/QLK4-CT-2002-02678, 2003-2005</i> Total budget 1 097 994 €, ITN budget: 86 997 € Prime contractor: Univ. Leipzig, Germany, Co-ordinator: T. Butz ITN Co-ordinator: T. Pinheiro Partners: A total of 8 Institutions in France, Germany, Hungary, Poland, Portugal	86 997
Total budget	86 997

Rejected Projects

ITN budget in €

- <i>Prooxidant/antioxidant profile of azorean populations differently exposed to volcanogenic hazards, FCT 2001</i> Total budget requested 16 948 € Prime contractor: Univ. Azores, Co-ordinator: M.L. Medeiros	16 948
Total budget	16 948

Atmospheric Elemental Dispersion

Current Projects

2002 ITN budget in €

- <i>ValorSul – Monitoring of air quality at the incinerator of S. João da Talha</i> , renewed Nov. 2001 Total budget: 331 400 € Prime contractor: ITN Co-ordinator: M.C. FREITAS Partners: IDAD	87 792
- <i>ValorSul – Monitoring of trace elements of urban solid waste treatment plant</i> , renewed Nov. 2000 Total budget: 8 828 €, ITN budget: 8 828 € Prime contractor: ITN Co-ordinator: M.A. GOUVEIA	5 222
- <i>Study of atmospheric dispersion of pollutants in the industrial region of the Sado Estuary using biomonitors</i> , contract IAEA-CRP9938 Dec.1997 – Dec2002 Total budget: 114 992.87 € Prime contractor: ITN Co-ordinator: M.C. FREITAS Partners: IAEA and other 14 International Laboratories/ Institutions	7 122
- <i>BIOCAL – Calibration of in situ biomonitors for quantification of the atmospheric dispersion of heavy metals</i> , POCTI/CTA/38411/2001 Feb. 2002- Feb. 2005 Total budget: 80 000 €, ITN budget 30 954 € Prime contractor: ITN, Co-ordinator: M.C. FREITAS Partners: CIIMAR, LAQUIPAI, CVRM	11 216
- <i>Impact of ε- beam and γ radiation on the wastewater treatment and drinking water: comparative studies</i> , IAEA/302-F2-POR-12017 B5-POR-30739 April. 2001- 2002 Total budget: 8 000 \times 10 ³ PTE, ITN budget 8 000 € Prime contractor: ITN Co-ordinator: M.L. BOTELHO	290
Total budget 111 642	

Approved Projects

ITN budget in €

- <i>Implementation of wastewater treatment using radiation</i> , POR/8/010, IAEA, 2003- 2006 Total budget 150 000 € Prime contractor: ITN Co-ordinator: M.L. BOTELHO	150 000
Total budget 150 000	

Submitted Projects

ITN budget in €

- <i>Multielemental methods for atmospheric processes studies (MultiMAPS)</i> , FCT Total budget: 245 194 € Prime contractor: ITN Co-ordinator: M.A. REIS Partners: Instituto de Meteorologia, Univ. Aveiro, Univ Açores	114 875
- <i>Effect of heavy metals on plants and soil in an abandoned Alentejo mine</i> , FCT Total budget: 96 714 € Prime contractor: Univ. Évora ITN Co-ordinator: M.C. Freitas Partners: ITN	33 380
- <i>Biomonitoring of Madeira Island and Azores islands (Terceira and Sta Maria). Intercalibration of biomonitor species</i> , FCT Total budget 142 757 € Prime contractor: Univ. Açores, ITN Co-ordinator: M.C. Freitas Partners: ITN, CVRM	60 469

RESEARCH PROJECTS

<p>- <i>INAA capability in glass fiber filters analysis. Validation of results by spectrometric techniques and atmospheric trajectories analysis, FCT</i> Total budget 132 012 € Prime contractor: ITN Co-ordinator: M.C. FREITAS Partners: Instituto de Meteorologia, CVRM, LAQUIPAI</p>	47 741
<p>- <i>Accumulation of farming-activity residuals and airborne chemicals in fresh horticultural products, FCT</i> Total budget 192 080 € Prime contractor: CVRM ITN Co-ordinator: M.C. FREITAS Partners: ITN, Univ. Algarve, LAQUIPAI</p>	62 354
<p>- <i>Cadmium, Mercury and Lead: Neutron Activation Analysis Optimization, FCT</i> Total budget 55 352 € Prime contractor: ITN Co-ordinator: M.C. FREITAS</p>	55 352
<p>- <i>Implementation of Reactor PGNA technique at Portuguese Research Reactor for environmental applications using k_0 standardized method, FCT</i> Total budget 80 431 € Prime contractor: ITN Co-ordinator: M.C. FREITAS</p>	80 431
<p>- <i>Pollen grains as adsorbers, transporters and bioindicators of atmospheric chemical pollution, FCT</i> Total budget 167 357€ Prime contractor: Porto University ITN Co-ordinator: M.C. FREITAS</p>	22 600
<p>- <i>Mass spectrometry network for elemental and isotopic analysis, FCT</i> Total budget 2335960 € Prime contractor: ITN Co-ordinator: M.F. ARAÚJO Partners: IST, FCUL and Instituto Hidrográfico</p>	1 737 840
<p>- <i>Laboratory for the characterization and speciation of aerosols – LCEA, FCT</i> Total budget 1 142 500 € Prime contractor: ITN Co-ordinator: M.A. REIS Partners: Instituto de Meteorologia, CESAM (Univ. Aveiro), CITA-A (Univ Açores)</p>	1 117 500
<p>- <i>Optimization of neutron activation analytical technique at the Portuguese Research Reactor. Extend application to environmental, food and health studies, FCT</i> Total budget 654 500€ Prime contractor: ITN Co-ordinator: M.C. FREITAS</p>	654 500
Total budget 3 987 042	

Rejected Projects

	ITN budget in €
<p>- <i>Expanding PIXE Analysis, high resolution and insulator targets (ExPHRIT), FCT</i> Total budget 59 581 € Prime contractor: ITN Co-ordinator: M.A.REIS</p>	59 581
<p>- <i>Use of nuclear and related analytical techniques for assessing human-health risks associated with toxic elements in food items contaminated by industrial activities, IAEA</i> Total budget 27 533 € Prime contractor: IST-UTL, Co-ordinator: M.C. FREITAS</p>	27 533
Total budget 87 114	

Environmental Analytical Chemistry

Current Projects

2002 ITN budget in €

- <i>Consequences of River Discharge Modifications on Coastal Zone and Continental Shelf (CRIDA)</i> , PLE/8/00, Out. 2001 - Out. 2004 Total budget: 125 000 × 10 ³ PTE, ITN budget: 242 133 € Prime contractor: ITN Co-ordinator: M.F. ARAÚJO Partners: Hydrographic Inst., Algarve Univ., Aveiro Univ., Meteorological Inst., Lisbon Univ.	98 881
- <i>Late Quaternary Environmental Changes from Estuarine and Shelf Sedimentary Record</i> , PLE/12/00, Set. 2000 - Set. 2003 Total budget: 74 000 × 10 ³ PTE, ITN budget: 24 940 € ITN Co-ordinator: M.F. ARAÚJO Prime contractor: IPIMAR, T. DRAGO	5 384
- <i>Groundwater Resources as Indicators and Archives of Palaeoclimatic Changes (NW-Portugal)</i> , P39435/CTA/2001, Mai. 2002 – Nov. 2003 Total budget: 30 000 €, ITN budget: 20 060 € Prime contractor: ITN Co-ordinator: P.M. CARREIRA Partners: IST, J.M. MARQUES, ICTE, F. SANTOS	7 604
- <i>Aquifers as Archives of Palaeoclimate and Indicators of Future Climatic Scenarios – Sado/Sines System and Bairrada Carsic Aquifer</i> , PCTI/CTA/36258/99, Mar. 2001 - Dec. 2002 Total budget: 10 000 × 10 ³ PTE, ITN budget: 18 106 € ITN Co-ordinator: P.M. CARREIRA Prime contractor: FCUL, M. OLIVEIRA	0
- <i>“Caracterização das Produções Metalúrgicas do Grupo Baiões/Santa Luzia (Bronze Final)”</i> , (ITN/Portuguese Institute of Archaeology protocol), Jan. 2002 - Dec. 2002 Total budget: 3 750 €, ITN budget: 3 750 € ITN Co-ordinator: M.F. ARAÚJO Prime contractor (archaeologist): J. SENNA-MARTINEZ	3 750
- <i>“Indígenas e Fenícios no Almaraz”</i> , (ITN/Portuguese Institute of Archaeology protocol) Jan. 2002 - Dec. 2002 Total budget: 3 750 €, ITN budget: 3 750 € ITN Co-ordinator: M.F. ARAÚJO Prime contractor (archaeologist): L.M. BARROS	3 750
- <i>The Isotopic Composition of Precipitation in the Mediterranean Basin in Relation to Air Circulation Patterns and Climate</i> , IAEA POR/11368/RO, Jan. 2001 - Dec. 2003 Total budget: 15 000 USD, ITN budget: 15 000 USD Prime contractor: ITN Co-ordinator: P.M. CARREIRA	5 618
- <i>Study of River Discharge Changes in the Portuguese Coastal Zone</i> , ICCTI-IFREMER, Jan. 2002 - Dec. 2002 Total budget: 773 € Prime contractor: ITN Co-ordinator: M.F. ARAÚJO Partners: Univ. Bordeaux I, J.-M. JOUANNEAU	773
Total budget	125 760

Submitted Projects

ITN budget in €

- <i>Centre for Isotopes and Trace Elements Research (CISTER)</i> Total budget: 2 335 960 € Prime contractor: ITN Co-ordinator: M.F. ARAÚJO Partners: C. Química Estrutural, M.L. GONÇALVES, C. Ciências Moleculares e Materiais, J.M. NOGUEIRA, C. Química e Bioquímica, F. DUARTE, Inst. Hidrográfico, P. PESTANA	1 737 840
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RESEARCH PROJECTS

<p>- <i>Data Acquisition Methods for Geosystems Characterization Aiming at the Sustainability Development of Natural Resources</i> Total budget: 2 058 896 € ITN Co-ordinator: P.M. CARREIRA Prime contractor: IST, L.F. RIBEIRO</p>	<p>226 328</p>
<p>- <i>Assessing the Impacts of Agriculture on Groundwater Quality using Nitrogen Isotopes</i> Total budget: 266 961 € ITN Co-ordinator: P.M. CARREIRA Prime contractor: IST, L.F. RIBEIRO</p>	<p>70 901</p>
<p>- <i>Role of High Mountain Areas in Catchment Water Resources – Northern/Central Portugal</i> Total budget: 308 831 € ITN Co-ordinator: P.M. CARREIRA Prime contractor: IST, J.M. MARQUES</p>	<p>63 238</p>
<p>- <i>Dissolved Gases in Subsurface Hydrology – CO₂-rich Thermomineral Waters (N – Portugal)</i> Total budget: 69 950 € Prime contractor: ITN Co-ordinator: P.M. CARREIRA Partners: IST, J.M. MARQUES</p>	<p>52 575</p>
<p>- <i>High Resolution Paleoenvironmental Study of the Late Holocene in Douro and Minho Estuaries. Modelling Past and Present Day Morphodynamics and Forecasting Future</i> Total budget: 330 720 € ITN Co-ordinator: M.F. ARAÚJO Prime contractor: IPIMAR, T. DRAGO</p>	<p>45 080</p>
<p>- <i>Microecology and Littoral Dynamics: Definition of Multi-proxies Applicable to Quaternary Paleogeographical and Paleoclimatic Reconstruction</i> Total budget: 310 933 € ITN Co-ordinator: M.F. ARAÚJO Prime contractor: UL-FFC, F. FATELA</p>	<p>36 118</p>
<p>- <i>Simulation of Recharge Processes in Karst Aquifers Using Forward and Inverse Discrete-Continuum Flow Models</i> Total budget: 121 310 € ITN Co-ordinator: P.M. CARREIRA Prime contractor: Algarve University, J.P. MONTEIRO</p>	<p>20 625</p>
<p>- <i>Study of River Discharge Changes in the Portuguese Coastal Zone</i> Total budget: 775 € Prime contractor: ITN Co-ordinator: M.F. ARAÚJO Partners: Univ. Bordeaux I, J.-M. JOUANNEAU</p>	<p>775</p>

Total budget 2 253 480

Inorganic Chemistry, Radiochemistry and Radiopharmacy

Inorganic and Organometallic Chemistry

Current Projects

	2002 ITN budget in €
- <i>Synthesis of Heteroscorpionate Ligands. Lanthanide Compounds with Applications in Ziegler-Natta Catalysis and C-H Activation</i> , POCTI/QUI/36015/99, Jan 2001-Jan 2003 Total budget 54 868 €, ITN budget 54 868 € Prime contractor: ITN Co-ordinator: N. Marques	11 000
- <i>Molecular Energetics</i> , POCTI/1999/QUI/35406 Nov.2000 – Nov. 2003 Total budget: 100 000 €, ITN budget 4 350 € Prime contractor: IST ITN Co-ordinator: J.P. Leal	900
- <i>FT-ICR Mass Spectrometry Studies of the Gas-Phase Chemistry of Actinide Ions</i> , POCTI/35364/QUI/2000, Jan. 2001-Mar. 2003 Total budget 49 880 €, ITN budget 49 880 € Prime contractor: ITN Co-ordinator: J. Marçalo	10 000
- <i>Immobilised Surface Rare Earth and Actinide Aryloxides. Activation of Small Molecules (CO₂, CH₄, C₂H₆)</i> , POCTI/QUI/42919/2001 Mar 2002 - Mar 2005 Total budget 41 000 €, ITN budget 41 000 € Prime contractor: ITN Co-ordinator: Teresa Almeida Gasche	15 219
- <i>Oxidative Coupling of Methane (Ocm) Using f Block Element Intermetallic Compounds as Catalytic Precursors</i> , POCTI/QUI/35394/1999 Oct. 1999- Oct. 2003 Total budget: 64 844€, ITN budget: 64 844 € Prime contractor: ITN Co-ordinator: Joaquim Branco	13 000
- <i>Tratamento e Valorização de Resíduos Plásticos</i> , Plastval/SPV Jan 2000- Dez 2002 Total budget: 65 143 €, ITN budget 65 143 € Prime contractor: ITN Co-ordinator: A. Pires de Matos	13 027
Total budget	63 146

Submitted Projects

	ITN budget in €
- <i>Simultaneous Thermochemical and Catalytic Studies</i> , FCT-ALFA/2002 Total budget: 134 550 € Prime contractor: ITN Co-ordinator: J.P. Leal	134 550
- <i>Quality Maintenance on Stored Grains</i> , FCT-ALFA/2002 Total budget: 94 150 €, ITN budget 61 025 € Prime contractor: ITN Co-ordinator: J.P. Leal	61 025
- <i>Catalytic Oxidation of Volatile Organic Compounds</i> , FCT-ALFA/2002 Total budget: 149 113 € Prime contractor: ITN Co-ordinator: Joaquim Branco	149 113

RESEARCH PROJECTS

- <i>Catalysts Activation by Gamma Radiation</i> , FCT-ALFA/2002 Total budget: 129 550 € Prime contractor: ITN Co-ordinator: Joaquim Branco	129 550
- <i>Radioactive Waste Vitrification</i> , FCT-ALFA/2002 Total budget 94 820 € Prime contractor: ITN Co-ordinator: J. Marçalo	94 820
- <i>Mass Spectrometry Network for Molecular and Biomolecular Analysis</i> , FCT-Infrastructures Prog. Total budget 338 0816 €, ITN budget 187 000 € Prime contractor: FCUL, Co-ordinator: Maria Helena Florêncio ITN Co-ordinator: J. Marçalo	187 000
- <i>Mono- and Dianionic Triazacyclononane Based Ligands as Ancillaries in Lanthanide and Transition Metal Chemistry</i> , FCT-ALFA/2002 Total budget 95 200€ Prime contractor: ITN Co-ordinator: N. Marques	95 200
- <i>Uranium(III) Complexes Supported by Scorpionate and Heteroscorpionate Ligands: Steric and Electronic Control of Metal Centre Reactivity</i> , FCT-ALFA/2002 Total budget 91 726€ Prime contractor: ITN Co-ordinator: N. Marques	91 726
- <i>Provenance Studies of Portuguese Glasses</i> , FCT-ALFA/2002 Total Budget 129 883€, ITN budget 74 008 € Prime contractor: ITN Co-ordinator: A. Pires de Matos	74 008
- <i>New Glass Materials in Art</i> , FCT-ALFA/2002 Total Budget 113 525€, ITN budget 33 750 € Prime Contractor:FBA/UL-UNL Co-ordinator: J.C. Carvalho e Melo ITN Co-ordinator: A. Pires de Matos	33 750
Total budget 1 050 742	

Inorganic and Radiopharmaceutical Chemistry

Current Projects

2002 ITN budget in €

- <i>Re and Tc Complexes for Peptide Based Radiopharmaceuticals: Chemistry, Radiochemistry and Biological Studies in vivo and in vitro</i> : POCTI/35423/QUI/99, October 2000 – October 2003 Total budget 91 679 €, ITN budget 91 679 € Prime contractor: ITN Co-ordinator: I. SANTOS	0
- <i>Radiopharmaceuticals for Treatment of Bone Cancer Pain and/or Therapy Based on Macrocyclic Lanthanide Complexes: POCTI/35859/SAU/99, March 2002- March 2005</i> Total budget 86 616 €, ITN budget 49 880 € Prime contractor: ITN. Co-ordinator: I. SANTOS Partner: Instituto Tecnologia Química e Biológica, Oeiras, R. DELGADO	17 330
- <i>Organometallic Rhenium and Technetium Complexes: Design of Radiopharmaceuticals for Brain Receptor Imaging</i> : POCTI/QUI/42939/2001, Feb. 2002- Feb. 2005 Total budget: 42 697 €, ITN budget 42 697 € Prime contractor: ITN Co-ordinator: A. Paulo	17 080

RESEARCH PROJECTS

- <i>Virtual Radiopharmacy – A mindful Learning Environment: EC Shared COST RTD ACTION: IST-2001-32291, Jan. 2002- Dec. 2004</i>	24 050
Total budget 2 992 787 €, ITN budget 80 167 €	
ITN Co-ordinator: LURDES GANO	
Prime contractor: St. Bartholomew’s Hospital. Co-ordinator: S. MATHER	
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- <i>Molecular Recognition and Sequestering of Metallic Ions Towards Potential Biomedical Applications: POCTI/35344/QUI/99, Nov. 2000 – Nov. 2003</i>	3 741
Total budget 74 820 €, ITN budget 6 235 €	
ITN Co-ordinator: L. GANO.	
Prime contractor: Instituto Superior Técnico, Lisboa, M. A. SEABRA	
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- <i>Evaluation of the Genotoxic and Antiestrogenic Potential of Triphenylethylene Derivatives and their Metabolites: POCTI/33544/QUI/99, October 2000 – October 2003</i>	27 470
Total budget 104 748 €, ITN budget 36 786 €	
ITN Co-ordinator: M.C. MELO E SILVA	
Prime contractor: Instituto Superior Técnico, Lisboa, M.M. MARQUES	
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- <i>Synthesis and Biological Evaluation of Re and ^{99m}Tc Complexes Containing Silylated Groups: ICCTI/DAAD, March 2002 – March 2003</i>	5 736
Total budget 5 736 €	
Prime contractor: ITN Co-ordinator: I. SANTOS	
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Total budget	95 407

Approved Projects

	ITN budget (€)
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- <i>Quality of Skin as a Barrier to Ultra-Fine Particles(NANODERM): EC Shared COST RTD ACTION: QoL-2002/4</i>	86 997
Total budget 1 097 994 €, ITN budget 86 997 €	
Prime contractor: Universitate Leipzig. Co-Ordinator: Tilman Butz	
ITN Co-ordinator: Teresa Pinheiro	
Partners : A total of 8 European Institutions	
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Total budget	86 997

Submitted Projects

	ITN budget (€)
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- <i>Re and Tc Dioxocomplexes with Polyamines - Design of Radiopharmaceuticals for Selective Tumour Therapy, POCTI/QUI/48983/2002</i>	60 913
Total budget: 60 913 €, ITN budget 60 913 €	
Prime contractor: ITN Co-ordinator: A. Paulo	
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Total budget	60 913

Cultural Heritage and Sciences

Current Projects

2002 ITN budget in €

- <i>The Archaeological Occupation of Castro Marim from the Iron Age to the Roman Epoche</i> , POCTI/HAR/38334/2001. Total budget 30×10^3 €, ITN budget 12 000 € ITN Co-ordinator: M.I. PRUDÊNCIO. Prime contractor: Centro de Arqueologia, Fac. Letras, Univ. Lisboa, A. ARRUDA	4 800
- <i>Archaeometry: Characterisation of Archaeological Ceramics and Dating</i> , ITN-IPA Protocol ITN Co-ordinator: M.I. PRUDÊNCIO A – <i>Pottery production in occidental neighbourhood of Islamic Lisbon</i> . Archaeologist: J. BUGALHÃO. ITN Co-ordinator: M.I. DIAS B – <i>Funeral environments in the Perdigões settlement: ceramics from the late Neolithic - SW Chalcolithic</i> . Archaeologist: M. LAGO and A.C. VALERA. ITN Co-ordinator: M.I. DIAS C – <i>Luminescence dating of the Lagar Velho (Lapedo) stratigraphy. Age estimates for the neanderthal-modern human 'hybrid'</i> . ITN Co-ordinator: D. RICHTER D – <i>Luminescence dating of a possibly Early Neolithic Megalithic site at Vale de Rodrigo, Alentejo, Portugal</i> . ITN Co-ordinator: D. RICHTER E – <i>Multiple chronometric dating of the Upper and Middle Palaeolithic site Gruta da Oliveira, Almonda, Portugal</i> . ITN Co-ordinator: D. RICHTER	24 890
- <i>Caracterização de cerâmicas arqueológicas recolhidas nas entulheiras do forno romano da Ajuda (Peniche)</i> . Financed by the Câmara Municipal de Peniche. ITN Co-ordinator: M.I. DIAS	1 279
- <i>ERA research Projects – Alqueva impact</i> A – <i>Archaeometric study of ceramics from the proto-historic occupation from the left side of the Guadiana basin (Moura) – Block 9</i> . Archaeologist JOÃO ALBERGARIA ITN Co-ordinator: M.I. DIAS. Total budget: 3 990 € B – <i>Archaeometric study of ceramics from recent pre-history of the left side of the Guadiana basin (M. Tosco, M. Valadares, Mercador) – Block 5</i> . Archaeologist A.C. VALERA ITN Co-ordinator: M.I. DIAS. Total budget: 3 990 € C – <i>Archaeometric study of ceramics from the roman occupation of the right side of the Guadiana basin (Xerez de Baixo) – Block 10</i> . Archaeologist SOFIA GOMES and SANDRA BRAZUNA. ITN Co-ordinator: M.I. DIAS. Total budget: 3 990 €	0
- <i>Luminescence dating - archaeological remains and museum artifacts. Interlaboratory comparison and validation of measurement and sampling protocols</i> . Protocol ICCTI Portugal/France Embassy - Project 521 A0 ITN Co-ordinator: M.I. PRUDÊNCIO. CNRS (France) Co-ordinator: J. CASTAING	775
- <i>Geochemical and mineralogical characterization of the salts from the Évora cathedral: evaluation of their effects in the degradation with a view to its conservation</i> . Protocol ICCTI Portugal/France Embassy - Project 507 B0 ITN Co-ordinator: M.I. PRUDÊNCIO. Ec. Mines St. Étienne, France, Co-ordinator: E. BILAL	775
- <i>Alteration processes and conservation methods of the built patrimony made of granite</i> , POCTI 3/3.1/CEG/2516/95. Oct.2000 – Oct.2002. Total budget: 189 700 €, ITN budget 40 787 € ITN co-ordinator: M.I. PRUDÊNCIO Prime contractor: LNEC, Lisboa, J. DELGADO RODRIGUES	0
- <i>Middle Palaeolithic and Mesolithic sites at Alqueva. Dating archaeology and landscape</i> . EDIA Ref: Of5094DAP/NPC/BJ/99. Prime contractor: ITN, Co-ordinator: D. RICHTER, budget 9,441€	8 069
- <i>Optically stimulated luminescence dating of neotectonic features in the Lower Tagus valley</i> . Laboratório de Tectonofísica e Tectónica Experimental. Prime contractor: ITN, Co-ordinator: D. RICHTER, budget 1,800€	1 800

RESEARCH PROJECTS

<p>- <i>The Lower Palaeolithic sites of Ambrona and Cuesta de la Bajada, Spain. Optically stimulated luminescence dating of the sediments from large game kill sites.</i> Universidad Complutense, Dpto. de Geodinámica, Madrid. Prime contractor: ITN, Co-ordinator: D. RICHTER, budget 2000€</p>	2 000
<p>- <i>Dating the Hummalian. A reevaluation of the long Palaeolithic sequence of Aïn Hummal in Syria.</i> ITN Co-ordinator: D. RICHTER. <i>Optical dating of the Pyrenee glaciations I.</i> IGEOTEST, Andorra. Prime-contractor: ITN, Co-ordinator: D. RICHTER, budget 1,800€</p>	0 1 800
<p>- <i>Electron Spin Resonance and U-series dating of the Lower Palaeolithic sites of Brecha das Lascas and Galeria Pesada, Almonda, Portugal.</i> ITN Co-ordinator: D. RICHTER.</p>	0
<p>- <i>COLASU – Sustainability of Mediterranean coastal lagoon ecosystems under semi-arid climate,</i> ICA3-CT-2002-10012. July 2002 – July 2005. Total budget: 795 000 €, ITN budget 124 404 € Prime contractor: Centre Nationale de la Recherche Scientifique, Univ. Louis Pasteur, Strasbourg, J. DUPLAY. ITN Co-ordinator: M.I. PRUDÊNCIO.</p>	49 748
<p>- <i>Non-point Pollution in the Hydrosphere Due to Agricultural Practices: Source Characterization and Pollutants Mobility in the Vadose Zone.</i> POCTI/36493/CTA/2000 ITN Co-ordinator: M.I. PRUDÊNCIO. Total budget 69831 €, ITN budget 9487 € Prime contractor: Univ. Açores, J.V. CRUZ. Partner: Univ. Lisboa, M.O.SILVA</p>	0
<p>- <i>Monitoring trace elements in environmental samples around the urban solid residues power plant – CTRSU (S. João da Talha).</i> VALORSUL program/contract (since 1998) ITN Co-ordinator: M.A. GOUVEIA</p>	35 854
Total budget 131 790	

Approved

	ITN budget in €
<p>- <i>The Lower Palaeolithic sites of Ambrona and Cuesta de la Bajada, Spain. Optically stimulated luminescence dating of the sediments from large game kill sites.</i> Universidad Complutense, Dpto. de Geodinámica, Madrid. Prime contractor: ITN, Co-ordinator: D. RICHTER, budget 1 000 €</p>	1 000
<p>- <i>Optical dating of the Pyrenee glaciations II.</i> IGEOTEST, Andorra, Prime-contractor: ITN, Co-ordinator: D. RICHTER, budget 1 800 €</p>	1 800
Total budget 2 800	

Submitted Projects

<p>- <i>Palaeoenvironmental Reconstruction using Chemical Analysis and Single-Grain Luminescence Dating. A non-biostratigraphical approach.</i> Submitted to FCT of the Ministério da Ciência e a Tecnologia, Programa Nacional de Re-equipamento Científico 2002. Total budget 671 560 €</p>	671 560
<p>- <i>Development of a new dating technique based on the luminescence characteristics of quartzite.</i> Submitted to FCT of the Ministério da Ciência e a Tecnologia, SAPIENS2001. Total budget 77 000 €</p>	77 000
<p>- <i>CHEMIMAR - Chemical and Mineralogical Markers Applied to Stratigraphic Analysis</i> Total budget 138 416 € ITN Co-ordinator: M.I. PRUDÊNCIO. Prime contractor: Univ. Aveiro, E. SILVA</p>	37 410
Total budget 785 970	

Nuclear Instruments and Methods

Current Projects

2002 ITN budget in €

- <i>Study of Carbon Plasmas Obtained in Laser Ablation of Graphite Targets by Numerical Modeling and LIP Spectroscopy</i> , ICCTI/4.1.1. OMFB 2002 – 2003 Total budget: 5 200 € ITN budget 3 710 € Prime contractor: ITN / CRC Co-ordinator: N.R. PINHÃO	2 840
- <i>Influência da esterilização nas propriedades e desempenho de materiais e produtos de protecção hospital descartável</i> , ADI/P0037/Steritex, mar 2000 – Nov 2001 Total budget: 295 313 € ITN budget 22 216 € Prime contractor: FAPOMED Co-ordinator: M.E. CABEÇO SILVA Partner: Univ. Minho (M.E. Cabeço Silva), ITN (C. Oliveira)	6 450
Total budget	9 290

Approved Projects

ITN budget in €

- <i>Study of Carbon Plasmas Chemical Kinetics and Composition by Plasma Modeling and LIP Spectroscopy</i> , OTKA (Hungary) 2002 – 2003 Total budget 6 500 € Prime contractor: CRC / Hungarian Acad. Sciences Co-ordinator: L. Nemes	1 000
Total budget	1 000

Submitted Projects

ITN budget in €

- <i>Modeling of Plasmas produced by Laser Ablation</i> , ITN / INETI 2002 – 2003 Total budget 65 860 € Prime contractor: ITN Co-ordinator: N.R. PINHÃO	36 248
- <i>Development of a general purpose software for plasma physics modeling</i> , ITN / IMP (Poland) 2003 Total budget 3420 € Prime contractor: ITN / IMP Co-ordinator: N.R. PINHÃO	1 140
Total budget	37 388

Radiation Technologies : Processes and Products

Current Projects

	Budget in 2002 in €
- Impact of ϵ - beam and γ radiation and wastewater treatment and drinking water: comparative studies, IAEA/302-F2-POR-12017 B5-POR-30739 April. 2001- 2002 Total budget: $8\,000 \times 10^3$ PTE, ITN budget 8 000 € Prime contractor: ITN Co-ordinator: M.L. Botelho.	2 517
- <i>Improving quality and safety of minimally processed fruits and vegetables by gamma irradiation</i> IAEA, POR-11682- Aug. 2001 until Aug.2002 (could be extended for 3 years) budget: ITN budget 652 € Prime contractor: INIA/ Co-ordinator: M.J. Trigo, ITN/Partner: M. Luísa Botelho	904
Total budget	3 421

Approved Projects

	ITN budget in €
- <i>Implementation of Wastewater Treatment Using Radiation</i> , POR/8/010, IAEA, 2003- 2006 Total budget 150 000 € Prime contractor: ITN Co-ordinator: M. Luísa Botelho.	143 586
- <i>AdI / Consortium project. "Estratégias Biotecnológicas para o Tratamento de Doenças Infecciosas: Direcionamento Intracelular de antibióticos e Oligonucleotídeos via Lipossomas.</i> Prime contractor: BLUEPHARMA/Co-ordinator: Sérgio Simões ITN/Partner: M. Luisa Botelho.	53 600
- <i>Estudos do Ambiente Microbiológico nas salas de cirurgia do HMP para prevenção de infeções cruzadas</i> , 4 years. Total budget: 11520 € March 2002 to March 2004. Prime contractor: Hospital Militar: Co-ordinator: Pet Mazarello/ITN/ Partner: M. Luisa Botelho.	11 520
Total budget	208 706

Submitted Projects

	ITN budget in €
- <i>Upgrading of Radiation Technology Unit (UTR) FCT</i> , 3 years Prime contractor: ITN Co-ordinator: M. Luisa Botelho	2 464 198
- <i>Comparative Studies on Eggs and Egg Products after Treatment by Gamma Radiation and by heat. Effects on Nutritional Values and Funtional Properties</i> FCT Prime contractor: ITN Co-ordinator: M. Luisa Botelho	44 125
- <i>Quality Maintenance on Stored Grains</i> , FCT Prime contractor: ITN Co-ordinator: J. Paulo Leal	61 025
- <i>Catalytic Oxidation on volatile Organic Compounds</i> FCT, Prime contractor: ITN Co-ordinator: Joaquim Branco	144 133
- <i>The Interaction of Ionising Radiation with Textile Materials – Functional and Microstructural Studies</i> , FCT, SAPIENS Proj Prime contractor::Univ. Minho Co-ordinator: M. Cabeço da Silva , ITN/Partner: M. L. Botelho	36 012
- <i>Catalysts Activation by Gamma Radiation</i> , FCT SAPIENS Proj, 3 years Prime contractor: ITN Co-ordinator: Joaquim Branco	129 550
- <i>Novos métodos de esterilização em meio hospitalar utilizando o vapor de água saturado</i> , AdI Prime contractor: JSM – José dos Santos Monteiro, Lda ITN/Partner: M. Luisa Botelho	63 412
- <i>Food Irradiation Network of Excellence</i> , Expression of Interest 6 th EU Framework Prime contractor: Queen's Univ/Belfast , ITN/Partner: M. Luisa Botelho	-
Total budget	2 942 455