

	European Research Council	ERC-2016-StG-716510	
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Job Title: PhD candidate fellowship, one position

Job Summary:

Open position for a PhD candidate fellowship in the framework of the project “Transparent and flexible electronics with embedded energy harvesting based on oxide nanowire devices” (TREND)/NOVA ID FCT, ERC-206-STG Grant number 716510, financed by the European Commission.

Job Description:

The research activity will have the objectives of studying the properties of solution processed nanostructures regarding their energy harvesting capability, as well as the integration of those nanostructures into nanogenerators.

Work will start with materials already available within the project (e.g., zinc-tin oxide, copper oxide, copper or nickel nanowires) but at a later stage candidate might need to tune existing materials and/or create new ones for improved energy harvesting performance, always following solution processing routes at low temperature. Piezo, pyro, thermoelectric and tribological properties are a few examples of the properties to study.

The researcher will then select the most promising energy harvesting properties to be used in nanogenerators, which will be fabricated on flexible substrates and should be able to power small electronic circuits also based on oxide nanostructures (being currently developed within the project by another researcher).

The work will be carried out at CENIMAT|I3N, within the Nanotechnologies and Nanoscience Doctoral Program of FCT-NOVA.

Number of positions available: 1 (one)

Research Fields: Chemistry/Physics, Materials Science, Micro and Nanotechnologies

Career Stage: Early Stage Researcher

Research Profiles: 1st Stage Researcher

Benefits: monthly payment of €980 by wire transfer. Fellowship also covers the yearly tuition fee of the Doctoral program and the social security if requested by candidate. Duration of 1 year, starting on April 2018, renewable until December 2021.

Type of Contract: PhD candidate fellowship

Status: Full-Time

Working Hours (hours per week): 40 hours/week

NOVA.id.FCT Campus de caparica 2829-516 Caparica, Portugal	www.novaid.fct.unl.pt Tel.: +351 21 294 85 53 Email: secretariado@novaidfct.pt
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Science4Refuges: No

Company/Institute:

NOVA.id.FCT – Associação para a Inovação e Desenvolvimento da FCT
Campus de Caparica
2829-516 Caparica
Portugal

Closing Date: 9th March 2018

Comment/web site for additional job details

For further information, please contact:

Pedro Barquinha, Professor, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal

- Email: pmcb@fct.unl.pt
- Telf: (+351) 21 294 85 62

Requirements

1. Required Education Level

Degree: MSc

Degree Field: Chemistry, Materials Science, Micro/Nanotechnologies

2. Required Languages

Language: English

Language Level: advanced, fluent (written and spoken)

3. Required Research Experiences

Solid knowledge on metallic and oxide nanostructures, particularly regarding their synthesis following solution processing at low temperature and their characterization. Knowledge regarding energy harvesting potential of nanostructures from multiple energy sources. Preference will be given to candidates with experience in clean room processes (deposition/lithography), as these will be required for integration of nanostructures into nanogenerators.

4. Additional Requiriments

5. Eligibility requirements

CV evaluation (65 %), interview (applicable to the 2 best candidates selected by the evaluation panel after CV evaluation, 35 %). To apply, candidates have to provide by email to pmcb@fct.unl.pt and cenimat.secretariado@fct.unl.pt a motivation letter, Curriculum Vitae and all

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the relevant certificates. Email subject has to include “ERC-2016-StG-716510_PhDEnergy”