



FOUNDATION FOR RESEARCH AND TECHNOLOGY-HELLAS
INSTITUTE OF CHEMICAL ENGINEERING SCIENCES (FORTH/ICE-HT)

Patras, 30.05.2016

Ref. No.: 1420

Invitation for Expression of Interest:

Fellowship “In-depth mechanical characterization of graphene related materials produced by conventional Chemical Vapor Deposition (CVD) and Plasma Enhanced Chemical Vapor Deposition (PECVD) method”

The Institute of Chemical Engineering Sciences, Foundation of Research and Technology - Hellas, (FORTH/ICE-HT) is seeking applicants for one position of a research assistant in the context of the research project “**Graphene Core 1, GA: 696656 – Graphene-based disruptive technologies**”. The project is implemented under the EU-Horizon 2020 Research & Innovation Actions (RIA) and is financially supported by EC-financed parts of the Graphene Flagship.

Job Description

To conduct research in the framework of the aforementioned project “Graphene Core 1, GA: 696656 – Graphene-based disruptive technologies”. The aim of this research is the in-depth mechanical characterization (mechanical testing in different modes such as bending, tension, compression etc) of graphene related materials (GRM) produced by conventional Chemical Vapor Deposition (CVD) method as well by Plasma Enhanced Chemical Vapor Deposition (PECVD). Additionally, different treatment methodologies such as plasma processing will also take place in order to examine different potentialities of adhesion between graphene and various polymer substrates.

The potential candidate should be responsible for the following main tasks:

- (a) Synthesis of GRM samples using CVD and PECVD methods along with surface treatment techniques achieving different levels of functionalization
- (b) Assessing the properties of produced GRM samples using techniques such as Raman spectroscopy, atomic force microscopy etc in conjunction with mechanical testing.

Location: FORTH/ICE-HT, Patras, Greece

Duration: 6 months, with a potential of renewal according to the needs of the project

Salary: Up to 840 € per month

Envisaged starting date: 01/07/2016

Requirements and Qualifications

The candidates are required to hold a Diploma in Physics. A Master in Science and Technology of Materials specialized in deposition of thin films and surface treatment is preferable. Moreover, the candidates must be fluent in Greek and English, in order to meet working conditions.

The appropriate candidate should have:

- (a) Experience in the preparation and characterization of graphene (or related carbon based materials) and 2D related materials
- (b) Analytical skills and thinking for processing database
- (c) A great scientific background in materials, especially in 2D related materials
- (d) Background in optical spectroscopy of 2D materials
- (e) Strong personality and good communication skills
- (f) Be a flexible and reliable person



(g) Be capable of autonomous working

The evaluation of the candidacies will be based on the following criteria and qualifications:

Qualifications	Weight	Evaluation criteria
Degree in Physics	30	Diploma Grade, courses in Solid State Physics
Master in Chemical Engineering	10	Master of Science Grade, Dissertation relevant to material science and technology
Awards of excellence	10	Number and type of awards
Proven lab experience (minimum 2 years) in : (i) Study 2D related materials, especially in graphene and its production with methods such as PECVD (ii) Deposition of thin-films and surface treatment techniques (ii) Characterization techniques such as Raman spectroscopy, (iii) Mechanical deformation of materials	30	Duration of proven research experience in research groups and projects
Research interests	20	Relevance, plans and potential

Application Submission

Interested candidates who meet the aforementioned requirements should submit their applications, no later than June 13th, 2016, 14:00h., by email to Kleanthi Zacharopoulou: kleanthi@iceht.forth.gr.

In order to be considered, the application must include:

- Application letter
- CV
- Scanned copies of academic titles
- Statement of research interests

Any application received after the deadline will not be considered for the selection.

Selection Procedure

Applications that are received on time will be evaluated by a scientific committee using the criteria mentioned above. If necessary, certain candidates will be invited to a personal interview with the committee. The outcome of the selection will be announced on the website of FORTH/ICE-HT as well as on the website of "DIAVGEIA". The selected candidate will be notified and asked to accept the position within three (3) working days and to present all relevant documents that should match the submitted ones.

Contact

For information and questions regarding the application and selection procedure, candidates are asked to contact the FORTH/ICE-HT Research Secretariat, e-mail: kleanthi@iceht.forth.gr, tel.: +30 2610 965278. For information and questions about the advertised position and the research activity of the group or the Institute, candidates are asked to contact Professor Costas Galiotis, tel: +30 2610 965255, e-mail: c.galiotis@iceht.forth.gr.

For FORTH/ICE-HT,
Vasilis Burganos, Director

