



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

Patras, 16.03.2016

Ref. No.: 687

Invitation for Expression of Interest:
Fellowship “Large scale production of 2D materials using novel methods and assessing their mechanical properties using characterization techniques”

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 to further investigate and improve the large scale production of 2D materials, such as BN and MoS₂ using novel precursors. In addition, an extended study should take place on the efficiency of loading in uniaxial (tension and compression) and biaxial loading of polymer simply-supported and embedded samples of the fabricated materials.

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

- (a) Preparation graphene and other 2D related materials such as BN and MoS₂ using novel methods and procedures
- (b) Assessing the properties of produced materials using techniques such as Raman spectroscopy, atomic force microscopy etc in conjunction with mechanical testing.

Location: FORTH/ICE-HT, Patras, Greece

Duration: 12 months, with a potential of renewal, under the same conditions, according to the needs of the project

Salary: Up to 840€ per month, depending on qualifications

Envisaged starting date: 01/05/2016

Requirements and Qualifications

The candidates are required to hold a Degree in Physics. A Master of Materials Science is preferable, but not necessary. 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 Material Science | 10 | Master of Science Grade, Dissertation relevant to mechanical response of polymer based composites |
| Awards of excellence | 10 | Number and type of awards |
| Proven lab experience (minimum 2 years) in : (i) Study 2D related materials such MoS ₂ and BN as well graphene (ii) Characterization techniques such as Raman and PL spectroscopy, (iii) Mechanical deformation of materials | 30 | Duration of proven research experience in research groups and projects. Quality and number of related publications in refereed journals and conference proceedings. |
| Research interests | 20 | Relevance, plans and potential |

Application Submission

Interested candidates who meet the aforementioned requirements should submit their applications, no later than March 31st, 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

