



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

Patras, November 27<sup>th</sup>, 2014

Ref. No.: 4232

**INVITATION FOR EXPRESSION OF INTEREST  
POST-DOCTORAL FELLOWSHIP**

“Theoretical investigation of crystal precipitation from supersaturated solutions on different substrates in porous materials”

The Institute of Chemical Engineering Sciences, Foundation of Research and Technology - Hellas, (FORTH/ICE-HT) is seeking applicants for one postdoctoral position in the context of the research project “**EXCELLENCE II 4420: Theoretical and experimental study of the controlled precipitation of inorganic salts in granular and consolidated porous media**”. The project is implemented in the frame of the Operational Program “Education and Lifelong Learning 2007-2013” - Action «EXCELLENCE II» - No 4420, and is co-financed by the European Union (European Social Fund) and Greek national funds.

**Job Description**

The title of research work is “Theoretical investigation of crystal precipitation from supersaturated solutions on different substrates in porous materials”. The job concerns the following: a) Modelling of the flow and precipitation of materials at the single-pore/unit cell level and at the pore network level which simulates the structure of the porous medium, b) Prediction of the evolution of the geometry, the mechanical and the hydraulic properties of different porous media and materials in the presence of supersaturated solutions flowing through, and c) the evaluation of the controlled consolidation of loose, or granular materials or soils due to the in-situ precipitation and crystal growth of calcium carbonate salts.

**Location:** FORTH/ICE-HT, Patras, Greece

**Duration:** 7 months

**Salary:** 17,220.00€

**Requirements and Qualifications**

The candidates must hold a Ph.D degree in Chemistry or Chemical Engineering. Candidates must have proven experience in developing simulators for the flow in porous media taking into account the related mass transfer phenomena (diffusion, flow, deposition) as function of system parameters and the nature and the geometrical characteristics of the porous media, as well. Candidates must have also proven experience in developing analytical solutions for the flow and the deposition in well-defined geometries.

**Application Submission**

Interested candidates who meet the aforementioned requirements are kindly asked to submit their applications, no later than Thursday, December 11<sup>th</sup>, 2014 by email to [kleanthi@iceht.forth.gr](mailto:kleanthi@iceht.forth.gr).

In order to be considered, the application must include:

- Brief CV

- Scanned copies of academic titles

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

### Selection Procedure

Applications that are received on time are going to be reviewed by the scientific committee. The committee will select the candidacy that best matches the position and project requirements, based on the score that it will get according to the criteria table as shown below. If necessary, certain candidates will be invited to a personal interview with the committee on a specific date and time that will be announced.

### Scoring of Credentials - Criteria

The eligible candidates will be evaluated with weight factors which are analyzed in detail below:

Criterion	Weight factor (%)	Evaluation
Scientific Excellence of the candidate	30	Research on issues similar to the job description stated above
Research Experience on the subject of the proposed position	30	Duration engagement with the subject of the work in research projects
Active participation in EU and national research project	20	Duration of research experience in research groups and projects
Ability for the dissemination of the results and future prospects	20	Relevant publications and participation in Greek or International Conferences

The successful candidate will be personally notified and will be asked to present the required documents in original form after the results announcement on the web. In the case that the presented documents don't match those submitted, the candidate will be dismissed from the procedure.

The result of the selection will be announced on the FORTH/ICE-HT website.

Candidates have the right to appeal the selection decision, by addressing their written objection to ICE-HT secretariat within five (5) working days since the results announcement on the web. They also have the right to access (a) the personal files of the candidates as well as (b) the table of candidates' scores in line with the Γ/ΕΞ/4163-1/06.07.2012 document of the Hellenic Data Protection Authority. All the above information related to the selection procedure will be available at the secretariat of FORTH/ICE-HT.

After the expiration of the appeal period and the review of the objections by the committee, the evaluation of the candidacies is finalized. Then the committee will ask the successful candidate to accept the position within three (3) working days and to present all relevant documents in original form. In the case that the presented documents don't match those



submitted, the candidate will be dismissed from the procedure as well as in the case of non-acceptance or non-response on time. In these cases, the candidate with the second higher score will be asked to accept the position according to the same procedure. This will be repeated until a suitable candidate accepts the position. In case of no candidate accepting the position, the position will be declared vacant.

#### Contact

For more information about FORTH/ICE-HT please visit the URL <http://www.iceht.forth.gr>.  
For further information about the post-doctoral fellowship please contact Professor Petros Koutsoukos, tel: +30 2610 997265, e-mail: [pgk@chemeng.upatras.gr](mailto:pgk@chemeng.upatras.gr); [pgk@iceht.forth.gr](mailto:pgk@iceht.forth.gr).



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Κοινωνικό Ταμείο



ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ  
ΕΙΔΙΚΗ ΥΠΗΡΕΣΙΑ ΔΙΑΧΕΙΡΙΣΗΣ

Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης

