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The Norwegian University of Science and Technology (NTNU) creates knowledge for a better world and solutions that can change everyday life.

Postdoctoral position in Multi-scale modelling of CO₂ condensation (IVT-126/16)

Faculty of Engineering Science and Technology (IVT)

Department of Structural Engineering

NTNU Nanomechanical Lab

The Department of Structural Engineering, Faculty of Engineering Science and Technology (IVT) at the Norwegian University of Science and Technology (NTNU) announces one vacant Postdoctoral position in the field of **Multi-scale modelling of CO₂ condensation**. The position is for a two years' period and financed by the Research Council of Norway' CLIMIT program via the project titled *Superlyophobic surfaces for efficient separation and droplet condensation of CO₂ (NanoDrop)*. The project is coordinated by Dr. Amy Brunsvold (Amy.Brunsvold@sintef.no) at SINTEF energy. The postdoctoral fellow will work at NTNU Nanomechanical Lab (NML), which is a dynamic sub-research group at Department of Structural Engineering. NML currently has 2 professors, 19 PhD students, 2 post docs and 2 visiting PhD students, working on nanomechanics topics related to materials, energy and nanotechnology. Recent publications, highlights and research activities can be found from the homepage www.ntnu.edu/nml.

The ultimate goal of the project **NanoDrop** is to accelerate the process necessary for reaching full-scale CO₂-capture by reducing cost and increasing energy-efficiency. The aim of the specific task to be carried out by the postdoctoral fellow is by multi-scale modelling to understand the fundamental CO₂ condensation mechanisms, to study the effect of nanoscale surface features on the condensation of saturated CO₂ and to guide the selection, design and optimization of substrate surfaces.

In order to be considered for the post-doctoral position, the applicant must hold a PhD degree within physics, chemistry, material technology, computational mechanics or relevant research areas. Candidates with strong experience both in molecular and continuum simulations will be preferred. Good communication capability both in written and oral English is a prerequisite.

Terms of employment

The appointment of the Postdoctoral fellows will be made according to Norwegian guidelines for universities and university colleges and to the general regulations regarding university employees.

Postdoctoral fellows are remunerated in code 1352, with a minimum gross salary of NOK 485 700 per annum (before tax). The salary is adjusted according to the recent wage negotiations, and given subject to the final approval of the Storting (the Norwegian Parliament). There will be a 2 % deduction to the Norwegian Public Service Pension Fund from gross wage.

The engagement will be made in accordance with the regulations in force concerning State Employees and Civil Servants. The position adheres to the Norwegian Government's policy of balanced ethnicity, age and gender.

According to the new Freedom of Information Act, information concerning the applicant may be made public even if the applicant has requested not to be included in the list of applicants..

The application

Applicants must sketch how the applicant would like to address the current research task. The application including a CV, the project sketch, grade transcripts (courses with grades) from the undergraduate as well as graduate studies, recommendation letters, certified copies of academic diplomas and certificates, and other enclosures should be sent electronically via this webpage at www.jobbnorge.no. Mark the application with IVT-126/16.

In case of questions, please contact Professor Zhiliang Zhang, zhiliang.zhang@ntnu.no, +47 73592530; Associate Professor Jianying He, jianying.he@ntnu.no, +47 73594686. No application should be directly sent to these email address.

Application deadline: 15 December 2016

Jobbnorge ID: 131073, Deadline: 15.12.2016, Internal ID: IVT-126/16