

Faculty of Natural Sciences and Technology - Department of Chemical Engineering

PROFESSOR/ASSOCIATE PROFESSOR IN CHEMICAL ENGINEERING (MEMBRANE SEPARATION FOR CO₂ CAPTURE)

The Department of Chemical Engineering, Faculty of Natural Sciences and Technology, Norwegian University of Science and Technology invites applications for a position at the rank of associate or full professor in Chemical Engineering with specialization on separation and environmental processes, commensurate with experience and qualifications.

The Department of Chemical Engineering has at present 12 professors, 7 associate professors, 4 adjunct professors and more than 100 PhD-students and post docs.

The Department has a national role and responsibility for research and teaching in chemical engineering. The Department is organized in five research groups and the position belongs to the group for Environmental engineering and reactor technology. The other four research groups are Process systems engineering, Biorefinery and fibre technology, Colloid and polymer technology, and Catalysis.

The Department has been active in the area of CO₂ capture for about twenty years and the position will be part of a large activity that includes other departments at the University and also SINTEF. The CO₂ activity on campus is probably the largest academic centre in Europe. Recently, NTNU was made leader of the ESFRI-appointed European CO₂ Capture and Storage Laboratory (ECCSEL), and as part of this, new CO₂ laboratories are presently under construction. Together with SINTEF, the University was recently awarded a National Environmental Energy Centre (FME) to focus on CO₂ capture.

The position will have specific responsibility for teaching and research in the field of separation and environmental processes, focusing on the use of membrane separation for CO₂ capture. In the evaluation, weight will be placed on qualifications in one or more of the areas of experimental studies and techniques, membrane material development (especially competence on polymers and nanocomposites), competence on durability of the materials when placed in various harsh environments, separation properties for gases in general through membranes, and the ability to combine the basic material competence with good engineering judgment for process applications and module design, including both flat sheets and hollow fibres. Experience in modeling of transport phenomena in membranes is also beneficial.

Applicants should be able to contribute to existing research and teaching programs, and to develop new programs within the field of specialization for this particular position covering membrane processes for CO₂ capture.

The successful applicant must be able to document extensive disciplinary qualifications in important fields within the discipline. His/her individual work must document scientific expertise in one or more areas within the discipline, particularly those special fields for which the position has responsibility. Special emphasis will be placed on the candidates' ability to initiate, build, and supervise internationally recognized research. Moreover, compatibility and complementarity of the proposed research with current research in the department will be assessed.

Weight will be placed on pedagogical skills. The evaluation of the candidate will be based on documented pedagogical material, including pedagogical education/training, the presentation of academic work, experience supervising masters-level students and doctoral candidates, and teaching as well as other pedagogical matters. The evaluation will consider both the quality and scope of the experience.

Applicants are asked to give an account of their pedagogical qualifications according prepared guidelines ("Documentation of an applicant's pedagogical qualifications") which can be obtained from following adress on internet:

http://www.ntnu.no/administrasjon/avdelinger/personal/momentliste_ped_kval_e.html.

Academic staff employed without having prior formal pedagogical qualification in university-level teaching, and who are unable to document equivalent qualifications, are required to successfully complete a recognized course that gives a pedagogical qualification in university-level teaching within two years of taking the appointment. The University offers such courses.

Applicants who have been short-listed will be invited for interviews and a demonstration of their pedagogical ability, usually in the form of a trial lecture. Short-listed applicants will also present a seminar outlining their current research and future research plans.

The Professor/associate professor is to be jointly responsible for disciplinary matters together with other academic staff in the Department. The Professor is required to contribute to teaching activities in the relevant curriculum and assist in further developing the teaching programme, including continuing education. The Professor is to supervise masters students, research fellows and doctoral candidates in his/her discipline. The Professor must agree to participate in administrative work.

The Professor/associate professor is obliged to adhere to regulations that concern changes and developments within the discipline and/or the organizational changes concerning activities at the University.

Newly-employed academic staffs who do not already master a Scandinavian language are within three years expected to achieve proficiency in Norwegian or another Scandinavian language. This proficiency should correspond to level three in the Norwegian for Foreigners courses provided at the Department of Applied Linguistics. The University provides such courses.

The appointment is to be made in accordance with the regulations in force concerning State Employees and Civil Servants.

More information about the Department of Chemical Engineering and the open position can be obtained from Department Head Professor Øyvind Weiby Gregersen (e-mail: oyvind.gregersen@chemeng.ntnu.no, phone: +47 73594029).

Please see our Internet pages <http://www.ntnu.no/kjempros/english> for information about the department and our activities.

The position as professor is remunerated according to wage levels 66 to 95 on the Norwegian State salary scale, with gross salary from NOK 514 500 to NOK 1 019 800 a year. Professorships are normally remunerated at wage level 66-78. The position as associate

professor is remunerated according to wage levels 57 to 76, with gross salary from NOK 435 500 to NOK 625 900 a year. Two per cent of the salary will be deducted at source as an obligatory premium to the Norwegian Public Service Pension Fund.

NTNU expressively invites applications from qualified female scientists.

Applications with full CV, list of publications, brief description of the scientific and technological relevance of the candidate's research, research proposal (max 10 pages), educational experience incl. plans for courses development, and other documents which the applicant would like to present should be submitted

Application should contain CV and certified copies of transcripts and

- Academic work - published or unpublished - that has relevance to the evaluation of the applicant's qualifications by the evaluation committee.
- A description of all the academic work that the applicant feels is most significant and that he/she feels the evaluation committee should pay particular attention to. This description should not normally refer to more than 10 examples of the applicant's work, but other work that has relevance to the evaluation of the applicant's qualifications can also be mentioned.
- A list of all publications with bibliographical references.

Joint work will be evaluated. If it is difficult to identify the contributions from individuals in a joint piece of work, applicants are to enclose a short descriptive summary of what he/she did in this connection.

Applications should be submitted electronically through www.jobbnorge.no
Reference number NT-23/10. **Closing date is September 30, 2010.**