PhD student position in Chemistry - Fabrication of Polymeric Membranes

Umeå University, Faculty of Science and Technology

Umeå University is dedicated to providing creative environments for learning and work. We offer a wide variety of courses and programmes, world leading research, and excellent innovation and collaboration opportunities. More than 4 300 employees and 31 500 students have already chosen Umeå University. We welcome your application!

We are now recruiting a PhD student to a project where we synthesis new polymers and fabricate polymeric membranes based on these polymers for separation applications. The applicant should have experience in the synthesis of polymer, polymeric membrane formation, and characterizing the prepared membranes. Application deadline is January 15th, 2019.

Description

The focus of the PhD project is research on synthesis of new polymers and fabrication of polymeric membranes for separation applications. Further targets of this project are to investigate the preparation conditions on the performance of the produced membranes, studying the thermodynamic and kinetic aspect of membrane formation, optimizing the fabrication parameters, and evaluating the potential of the prepared membranes for pilot scale separation. The work which will be carried out in the project is largely experimental. The project is based on a collaboration between industry and university.

Admission requirements

You are required to have completed a second- cycle level degree, or completed course requirements of at least 240 ECTS credits, of which at least 60 ECTS credits are at second-cycle level, or have an equivalent education from abroad, or equivalent qualifications.

To fulfil the specific entry requirements for studies at third-cycle level in chemistry, you are required to have completed first-cycle courses of at least 90 ECTS credits within the fields of chemistry or chemical technology, or other closely related subjects considered directly relevant to the specialization in question. Among these 90 ECTS credits, at least 15 ECTS credits shall have been acquired at the second-cycle level within the specialization or an equivalent subject.

Fundamental knowledge about the synthesis of polymer, polymeric membrane formation, and characterizing the prepared membranes are mandatory. Documented experience of laboratory work in the areas of separation science and organic synthesis is meriting. Part of the experimental work will involve designing and building unique equipment. Familiarity with electronics and a reasonable amount of handiness is therefore needed to successfully carry out the work.

Very good communication skills in English, both orally and in writing are required. In order to succeed as a PhD student, you must be creative, goal-oriented and devoted to work. You must also have good interpersonal skills, be resourceful, and have a high degree of independence. You should also have a keen interest in polymer chemistry, alternatively, in organic chemistry, industrial chemistry, separation sciences, and be prepared to adopt scientific and technological challenges.

About the position

The position is intended to result in a doctoral degree and the main task of the PhD students is to pursue their doctoral studies, which includes participation in research, in the compulsory department seminar series, and postgraduate courses. Teaching and other departmental work can be assigned (up to a maximum of 20% of full working time). The employment is time-limited to four years of full-time work, with extension of up one year to compensate for part time teaching and other duties. Salary is set in accordance with the established salary ladder for PhD positions.

The application

A complete application should contain the following documents:

- An application letter (see below for expected contents) which should include your contact information;
- A curriculum vitae including a listing of formal merits,
- A digital copy of your completed BSc and/or MSc thesis and, if applicable, other research publications;
- Verified copies of degree certificates translated into Swedish or English, including documentation of completed academic courses and obtained grades; and

- Contact information to at least three reference persons

As part of your application letter you are requested to account for a) the driving forces that motivate you to pursue studies at the PhD level in this area of science and in our group in particular; b) your career ambitions; and c) the expectations you have on working life after you have completed a doctoral degree. You are also requested to explain why you are convinced that your previous study background and work experience, combined with other items listed in the CV attached to your application, are particularly useful for solving the research challenges listed in this advertisement.

Your application should be written in Swedish or English and be submitted *via* our e-recruitment system MyNetwork Pro/Varbi (link below) on **January 15th, 2019** at latest.

For specific information on this position, contact Dr. Naser Tavajohi Hassan Kiadeh, naser.tavajohi@umu.se, +46(0)90-7866061.

For general information on PhD studies in chemistry, contact the director of postgraduate studies, prof. Elisabeth Sauer-Eriksson, elisabeth.sauer-eriksson@umu.se, +46(0)90-7865923.

We politely but firmly decline any contacts from recruitment agencies in connection to this ad.

Information about the department

The Department of Chemistry is part of the Faculty of Science and Technology. It is currently the workplace of about 200 employees, including about 50 postgraduate students. The research is a strong and expanding part of our activities, which covers three major areas: Biological Chemistry, Environmental and Biogeochemistry, and Technical Chemistry. These three focus areas are also mirrored in programs and courses taught by our staff at the undergraduate and graduate levels. The department is also a strong partner in The Chemical-Biological Centre (KBC). Information about the Department of Chemistry; www.chemistry.umu.se/english. Information about postgraduate education can be found on the Faculty of Science and Technology website: http://www.teknat.umu.se/english/doctoral-studies/. For more information about working at Umeå University, https://www.umu.se/en/work-with-us/

Umeå University wants to offer an equal environment where open dialogue between people with different backgrounds and perspectives lay the foundation for learning, creativity and development. We welcome people with different backgrounds and experiences to apply for the current employment.

We kindly decline offers of recruitment and advertising help.

Link to ad http://umu.mynetworkglobal.com/what:job/jobID:238427/