



PhD position in PRICE project

About the position

The PhD position is for three years of duration, but with the possibility of one year extension on basis of teaching duties depending on the candidate.

The PhD position is within the PRICE project "PRocess Industries in the Circular Economy - development of improved environmentally friendly processes and recoveries of strategic elements" funded by the Research Council of Norway through the BIA program together with six Norwegian industrial companies. The PRICE project also covers three other PhD projects on different research topics, and thus have inter- and multidisciplinary aspects.

The position is available from 1st August 2019. The PhD candidate will be supervised by Associate Professor Liyuan Deng.

Main duties and responsibilities

The research topic of the PhD project is membrane development for electrodialysis for upgrading mineral streams in and between various hydrometallurgical sectors. Electrodialysis is a membrane-based technology, where a forced electric current is used to transfer ions from one solution to another, and thereby remove ions from one solution and concentrating them in the other solution.

The main part of the PhD research is to be conducted in IKP at NTNU in Trondheim, Norway, in the membrane research laboratory (<https://www.ntnu.edu/chemeng/research/environmental-engineering-and-reactor-technology/membrane-research>). The candidate has the opportunity to work in close collaboration with the Department of Energy and Process Engineering (EPT) at NTNU and the PRICE project partners in the Department of Chemistry at University of Oslo, Simon Fraiser University (Canada), Boliden Odda, K.A. Rasmussen, Yara International ASA, NOAH, Glencore Nikkelverk, Solberg industry, and SINTEF. Opportunities also exist for performing research at other laboratories in industry and through international exchange. More information about the PRICE project can be found on www.hydromet.no/price.html.

Membrane material development and optimization are core research in this PhD project, and suitable background for the selected candidates ranges from chemical engineering to chemistry, nanotechnology and materials science. Previous experimental training in electrochemistry and membrane synthesis/characterization is highly advantageous.

For more information about the Department, please look at our web page <http://www.ntnu.edu/chemeng/>

Qualification requirements

The PhD-position's main objective is to qualify for work in research positions. The qualification requirement is completion of a master's degree or second degree (equivalent to 120 credits) with a strong academic background with a grade of B or better in terms of [NTNU's grading scale](#). Applicants with no letter grades from previous studies must have an equally good academic foundation. Applicants who are unable to meet these criteria may be considered only if they can document that they are particularly suitable candidates for education leading to a PhD degree.

The appointment is to be made in accordance with the regulations in force concerning State Employees and Civil Servants and [national guidelines for appointment as PhD, postdoctor and research assistant](#)

NTNU is committed to following evaluation criteria for research quality according to [The San Francisco Declaration on Research Assessment - DORA](#).

Other qualifications

- The sought candidate should, because of the close collaboration with industrial companies, have an interest in trying to combine solid fundamental research with practical innovation.
- Relevant backgrounds would be a master degree in chemical engineering, mechanical engineering (with some basic chemistry), physics (with some basic chemistry), nanotechnology, chemistry or an engineering degree focusing on environmental or ecological aspects.
- All applicants must be able to communicate fluently in English (in speaking and writing), while knowledge of Norwegian is considered an additional advantage. Applicants must indicate their level of language skills in English and Norwegian.

We offer

- exciting and stimulating tasks in a strong international academic environment
- an open and [inclusive work environment](#) with dedicated colleagues
- favourable terms in the [Norwegian Public Service Pension Fund](#)
- [employee benefits](#)

Salary and conditions

PhD candidates are remunerated in code 1017, and are normally remunerated at gross from NOK 449 400 before tax per year. From the salary, 2 % is deducted as a contribution to the Norwegian Public Service Pension Fund.

The period of employment is 3 years with the possibility of one year extension due to teaching duties.

As a PhD candidate, you undertake to participate in an organized PhD programme during the employment period. A condition of appointment is that you are in fact qualified for admission to the PhD programme within three months.

The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants, and the acts relating to Control of the Export of Strategic Goods, Services and Technology. Candidates who by assessment of the application and attachment are seen to conflict with the criterias in the latter law will be prohibited from recruitment to NTNU. After the appointment you must assume that there may be changes in the area of work.

General information

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background. Under the Freedom of Information Act (offentleglova), information about the applicant may be made public even if the applicant has requested not to have their name entered on the list of applicants.

Questions about the position can be directed to Associate Professor Liyuan Deng, e-mail: liyuan.deng@ntnu.no

Publications and other academic works that the applicant would like to be considered in the evaluation must accompany the application. Joint works will be considered. If it is difficult to identify the individual applicant's contribution to joint works, the applicant must include a brief description of his or her contribution. The candidate should be able to start in the second part of 2019 and preferably in August, but exempt for the right candidate can be made for up to half a year.

Please submit your application electronically via jobb norge.no with your CV, diplomas, certificates and reference letters in English language proficiency (e.g. TOEFL, IELTS, etc.). Applicants invited for interview must include certified copies of transcripts and reference letters. Please refer to the application number NV-54/19 when applying.

Application deadline: 01.06.19

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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.

Department of Chemical Engineering

We take chemistry from laboratory scale to industrial production. This demands a wide range of knowledge, from molecular processes and nanotechnology to building and operation of large processing plants. We educate graduates for some of Norway's most important industries. [The Department of Chemical Engineering](#) is one of eight departments in [the Faculty of Natural Sciences](#).

Jobbnorge-ID: 170145, Søknadsfrist: Søknadsfristen er gått ut