

Jobbnorge ID: 295466
Deadline: 3/15/2026
Website: <http://www.ntnu.no>
Scope: Fulltime
Duration: Temporary

The Department of Chemical Engineering has a vacancy for a

Postdoctoral Fellow in Battery Materials and Membrane-Based Energy Storage Research

This is NTNU

NTNU is a broad-based university with a technical-scientific profile and a focus in professional education. The university is located in three cities with headquarters in Trondheim.

At NTNU, 9,000 employees and 43,000 students work to create knowledge for a better world.

You can find more information about working at NTNU and the application process [here](#).

Video: <https://youtu.be/Xt-yHCN5QS0>

About the position

The Department of Chemical Engineering (IKP), Faculty of Natural Sciences (NV), at the Norwegian University of Science and Technology (NTNU) has a vacancy for a Postdoctoral Fellow. The position is associated with the research project AMAZIEN - Transforming Multifunctional Membranes into High-Performance Cathodes and Separators in Aqueous Zn-I₂ Batteries for Sustainable Energy Storage, funded by the Research Council of Norway.

Are you ready to take your research career to the next level? We offer an exciting three-year postdoctoral position that provides an excellent opportunity to build a strong and independent research profile in battery materials and membrane-based energy storage technologies. You will work in a highly interdisciplinary and international research environment, with access to state-of-the-art laboratory facilities and close collaboration with national and international research partners.

The purpose of the postdoctoral position is to strengthen the candidate's scientific profile and prepare for a future career in academia, research institutes, or industry.

The desired starting date is as soon as possible, and no later than 1 June.

Your immediate leader will be the Head of Department.

About the project

The AMAZIEN project aims to develop innovative cathode and separator materials for aqueous zinc-iodine (Zn-I₂) batteries, addressing key challenges such as polyiodide shuttling, zinc dendrite formation, and sluggish iodine redox kinetics. By integrating advanced membrane design concepts, nanostructured materials, and insights from lithium-sulfur battery research in the group, the project seeks to significantly improve battery energy density, cycle life, safety, and storage efficiency.

The postdoctoral fellow will work flexibly across cathode and separator development, depending on the candidate's background and interests, and will contribute to experimental design, materials development, advanced characterization, and electrochemical performance evaluation of Zn-I₂ batteries.

The main duties of the Postdoctoral Fellow will include

- Carrying out high-quality and independent research within the AMAZIEN project
- Design, synthesis, and characterization of advanced cathode and separator materials for aqueous Zn-I₂ batteries
- Investigation of structure-property relationships governing ion transport and electrochemical performance
- Assembly and testing of battery cells and analysis of electrochemical performance
- Publication of research results in high-impact, peer-reviewed scientific journals
- Dissemination of research results at national and international conferences
- Active participation in the research group and project meetings

- Mentoring PhD and Master's students and advising on experimental methodology and academic writing
- Contribution to the preparation of research proposals and progress reporting when relevant

Applicants must

- Hold a doctoral degree (PhD) in battery technology, electrochemistry, materials science, chemical engineering, chemistry, or a closely related discipline
- Have a strong research background in battery materials or electrochemical energy storage systems
- Demonstrate very good oral and written communication skills in English
- Applicants who are in the final phase of their doctoral studies may be considered, provided that the PhD thesis has been submitted or a confirmed defense date can be documented. Documentation of the completed doctoral degree must be presented before taking up the position.

PLEASE NOTE: For detailed information about what the application must contain, see paragraph "About the application".

If you do not already have educational competence that meets the requirements for a position as associate professor in Norway, NTNU will arrange for you to acquire such competence during the employment period. In such cases, you will also be assigned relevant teaching as part of the career-promoting work.

The appointment is to be made in accordance with [NTNUs guidelines for recruitment positions](#) and [Regulations concerning the degrees of philosophiae doctor \(ph.d.\) in artistic development work at the Norwegian University of Science and Technology \(NTNU\)](#) for general criteria for the position.

The following qualifications will be considered an advantage

- Research experience with aqueous batteries, particularly Zn-based or Zn-I₂ battery systems
- Experimental expertise in cathode and/or separator materials
- Experience with membrane materials, polymer science, nanocomposites, or functional thin films
- Strong background in electrochemical characterization techniques
- Proven ability to publish research in international peer-reviewed journals
- Experience with interdisciplinary research and international collaboration

Personal characteristics

Working as a Postdoctoral fellow requires that you

- Can work independently and in a structured manner
- Demonstrates strong analytical and problem-solving skills
- Shows curiosity and strong motivation for battery and materials research
- Is flexible and open to adapting research plans as the project develops
- Communicates and collaborates well in an interdisciplinary research environment

Emphasis will be placed on personal qualities.

We offer

- An exciting job with an important [social mission](#)
- Developing tasks in a strong and international professional environment
- Career guidance throughout the postdoctoral program and together with you we will prepare a career plan, which contains the skills and knowledge you will acquire
- Open and inclusive working environment with committed colleagues
- [Mentor programme](#) as a [new employee at NTNU](#)
- Favorable terms in the [Norwegian Public Service Pension Fund](#)
- Free Norwegian language training at a basic level ([A2](#)).

As a Postdoctoral Fellow at NTNU, you will have access to [employee benefits](#).

Diversity

Diversity is a strength, and at NTNU we aim to be an employer that reflects the diversity in society and that makes use of the potential of the population's collective skills. Our vision is [Knowledge for a better world](#) and [our values are creative, critical, constructive and respectful](#). We believe that an organization that is equal, diverse and gender-balanced is essential for us to achieve our goals.

We strive to attract employees with different skills, life experiences and perspectives to contribute to even better problem solving of our societal mission in research and education.

If you think this position is relevant and interesting, we encourage you to apply, regardless of gender, functional ability and cultural background, or whether you have been out of work for a period of time.

At NTNU we want to increase the proportion of women in scientific positions. We have a number of [measures](#) to promote equality.

Salary and conditions

As a Postdoctoral Fellow (code 1352) you are normally paid from gross NOK 633 400,- per annum before tax, depending on qualifications and seniority. From the salary, 2% is deducted as a contribution to the Norwegian Public Service Pension Fund.

The period of employment is 3.

As an employee at NTNU, it is important to keep yourself up to date with academic and organizational changes and to adapt to them.

For the necessary professional and social interaction, it is a prerequisite that you are physically present and available to the institution on a daily basis.

The appointment is carried out in accordance with the principles of the [State Employees Act](#), and [Export control](#) (legislation that regulates the export of knowledge, technology and services). Candidates who, after assessment of the application and attachments, are considered to be in conflict with the criteria in the latter act, will not be able to be employed.

About the application

The attachments (including a description of your scientific work) must accompany the application as these documents form the basis of the application assessment. The documents must be in English.

Please note: the application will only be assessed on the basis of the information we have received by the application deadline. Therefore, make sure that your application clearly shows how your skills and experience meet the criteria described above.

The application and all attachments must be sent electronically via Jobbnorge.no. If you are invited to an interview, you must bring certified copies of certificates and diplomas upon request.

The application must include:

- Transcripts and diplomas for Bachelor's-, Master's- and PhD degrees. If you have not yet completed your PhD, you must provide confirmation on your estimated date for the doctoral dissertation, or confirmation that your PhD thesis has been submitted. Documentation of a completed doctoral degree must be presented before taking up the position.
- CV
- A copy of the doctoral thesis. If you are close to submitting, you can attach a draft of the thesis.
- Research plan (2-3 pages)
- Academic works - published or unpublished
- Possible recommendation letters
- Name and contact information of three referees

If all or parts of your education has been taken abroad, we also ask you to attach documentation of the scope and quality of your entire education. Description of the documentation required can be found [here](#). If you already have a statement from [Norwegian Directorate for Higher Education and Skills \(HK-dir\)](#), please attach this as well.

Joint works will be considered. If it is difficult to identify your contribution to joint works, you must attach a brief description of your participation.

If you have had leave or another break in your career, it is important that this is stated in your application so that the selection committee can take this into account and that the amount of your research may be reduced as a result.

In the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal qualities. Motivation, ambitions and potential for research will also be emphasized in the assessment of the candidates.

NTNU recognizes a wide range of academic contributions and is committed to follow evaluation criteria for research quality according to [The San Francisco Declaration on Research Assessment DORA](#) and the obligations in [CoARA](#) (responsible assessment of research and recognition of a greater breadth of academic contributions in accordance with NTNU's social mission).

General information

A public list of applicants with name, age, job title and municipality of residence is prepared after the application deadline. If you wish to be exempt from entry on the public list of applicants, this must be justified. Assessment will be made in accordance with [current legislation](#). You will be notified if the exemption is not granted.

If you have any questions about the position, please contact Professor Liyuan Deng (liyuan.deng@ntnu.no).

If you have any questions about the recruitment process, please contact HR Consultant Lise Skorstad (lise.skorstad@ntnu.no)

If you find this position interesting, and in accordance with your qualifications, please submit your application electronically via jobbnorge.no with your CV, diplomas and certificates attached. Applications submitted elsewhere will not be considered. Upon request, you must be able to obtain certified copies of your documentation.

Application deadline: 15.03.2026

For practical information about [working at NTNU](#), please visit this webpage.

[The city of Trondheim](#) is a modern European city with a rich cultural scene. [Trondheim is the tech capital of Norway](#) with a population of 200,000. The Norwegian welfare state, including healthcare, schools, kindergartens and overall equality, is probably the best of its kind in the world. Professional subsidized day-care for children is easily available. Furthermore, Trondheim offers great opportunities for education (including international schools) and possibilities to enjoy nature, culture and family life and has low crime rates and clean air quality.

NTNU - knowledge for a better world

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.

Additional information

Contact person:

Liyuan Deng, Professor

Phone: | E-mail: liyuan.deng@ntnu.no

Place of service:

Høgskoleringen 1 7491 Trondheim (Trondheim Municipality)