Postdoc in Surface Science Characterization of Electrocatalysts

Postdoc opening for a project that investigates the fundamental properties of electrocatalysts used in energy storage and conversion at the Interfaces and Catalysis group at the Interdisciplinary Nanoscience Center (iNANO) and Department of Chemistry, Aarhus University.

The 2-year postdoc position (extension possible) is starting at 1st of March 2026 or soon hereafter and will take place within the newly granted ERC Synergy Grant “MAGNESIS”.

Job description

As a postdoc, you will become part of a research team that investigates the structure and chemical properties of materials and interfaces for catalysis and electrocatalysis. You will develop a research activity within experimental characterization of electrocatalyst model catalysts using electrocatalysis workstations, scanning probe microscopy and x-ray photoemission spectroscopy.

This includes a newly established near-ambient-pressure XPS facility (NAP-XPS). In the MAGNESIS project we will specifically work towards understanding and application of magnetically enhanced electrocatalysis for water splitting and CO2 reduction (see e.g. https://doi.org/10.1038/s41560-019-0404-4).

Your main tasks may include

- Application of new materials and model systems for electrocatalysis
- Surface characterization using near-ambient pressure XPS (NAP-XPS)
- Method development for electrocatalysis measurements
- Scanning probe microscopy
- Synchrotron beam times
- Supervision of PhD or MSc students
- Coordination with international partners

Qualifications

We seek a highly motivated postdoc candidate with a PhD degree and a background in chemistry, physics, nanoscience or equivalent disciplines. You have the ambition to contribute significantly to academic research in an innovative research environment and head the development of new experimental methodologies for electrocatalysis studies.

You will apply your skills in an interdisciplinary research team that consists of students and researchers with a nanoscience, physics or chemistry background and you will work in collaboration with international partners.

If you have documented knowledge in several of the areas below, you are the right one for the job:

- Electrocatalysis
- Experimental surface science studies of catalyst materials
- X-ray Photoelectron Spectroscopy, ideally near-ambient pressure XPS (NAP-XPS)
- Scanning probe microscopy
- Surface science synchrotron measurements

Specific experience with the development of methodologies for advanced characterization of electrocatalysts or electrocatalysis measurements on planar model systems will be considered a definite plus.

Who are we?

The project will be carried out in the Interfaces and Catalysis group (Prof. Jeppe V. Lauritsen) at the Interdisciplinary Nanoscience Center (iNANO) and Department of Chemistry, Aarhus University.

Application Deadline:
15 January 2026

Institute/Faculty:
Interdisciplinary Nanoscience Center

Faculty:
Faculty of Natural Sciences

Academic contact person:
Jeppe Vang Lauritsen
Konstitueret centerleder, Professor
+4587156728
jvang@inano.au.dk
+4523382369

Vacant positions:
1

Number of months:
24

Hours per week:
37

Expected date of accession:
01/03/2026

The group commands a range of experimental techniques including a range of advanced facilities on scanning probe microscopy and a new X-ray photoelectron spectroscopy setup. We are also very active users of synchrotrons, including the local ASTRID2 light source at Aarhus University and for example the nearby MAX-IV facility in Lund, Sweden.

The research group has access to infrastructure at iNANO that enables a strong microscopy and spectroscopy characterization of the materials. You will be joining a diverse research group in terms of gender and nationalities, which prioritizes collaboration, shared responsibilities, common social activities and respectful communication.

Place of work and area of employment

The place of work is the iNANO house, Gustav Wieds Vej 14, 8000 Aarhus C, and the area of employment is Aarhus University with related departments.

As of 1 August 2026, iNANO's educational and research activities will be transferred to the faculty's departments. Consequently, your employment will as of that date be with a department.

Further information

If you have any questions, please contact Prof. Jeppe V. Lauritsen, jvang@inano.au.dk tel.: + 45 2338 2369.

Application procedure

Shortlisting is used. This means that after the deadline for applications – and with the assistance from the assessment committee chairman, and the appointment committee if necessary, – the head of department selects the candidates to be evaluated. All applicants will be notified whether or not their applications have been sent to an expert assessment committee for evaluation. The selected applicants will be informed about the composition of the committee, and each applicant is given the opportunity to comment on the part of the assessment that concerns him/her self. Once the recruitment process is completed a final letter of rejection is sent to the deselected applicants.

Letter of reference

If you want a referee to upload a letter of reference on your behalf, please state the referee's contact information when you submit your application. We strongly recommend that you make an agreement with the person in question before you enter the referee's contact information, and that you ensure that the referee has enough time to write the letter of reference before the application deadline. Unfortunately, it is not possible to ensure that letters of reference received after the application deadline will be taken into consideration.

If you wish to add a referee **after** you have submitted your application, you must send this person's details (name, job title, place of work, and email address) as well as the name of the position you have applied for to: HR.Nattech@au.dk

Formalities and salary range

Natural Sciences refers to the Ministerial Order on the Appointment of Academic Staff at Danish Universities under the Danish Ministry of Science, Technology and Innovation.

The application must be in English and include a curriculum vitae, degree certificate, a complete list of publications, a statement of future research plans and information about research activities, teaching portfolio and verified information on previous teaching experience (if any). Guidelines for applicants can be found here.

Appointment shall be in accordance with the collective labour agreement between the Danish Ministry of Taxation and the Danish Confederation of Professional Associations. Further information on qualification requirements and job content may be found in the Memorandum on Job Structure for Academic Staff at Danish Universities.

Salary depends on seniority as agreed between the Danish Ministry of Taxation and the Confederation of Professional Associations.

Aarhus University's ambition is to be an attractive and inspiring workplace for all and to foster a culture in which each individual has opportunities to thrive, achieve and develop. We view equality and diversity as assets, and we welcome all applicants.

Research activities will be evaluated in relation to actual research time. Thus, we encourage applicants to specify periods of leave without research activities, in order to be able to subtract these periods from the span of the scientific career during the evaluation of scientific productivity.

Aarhus University offers a broad variety of services for international researchers and accompanying families, including relocation service and career counselling to expat partners. Read more here. Please find more information about entering and working in Denmark here.

Aarhus University also offers a Junior Researcher Development Programme targeted at career development for postdocs at AU. You can read more about it here.

At the Faculty of Natural Science at Aarhus University, we strive to support our scientific staff in their career development. We focus on competency development and career clarification and want to make your opportunities transparent. On our website, you can find information on all types of scientific positions, as well as the entry criteria we use when assessing candidates. You can also read more about how we can assist you in your career planning and development.

The application must be submitted via Aarhus University's recruitment system, which can be accessed under the job advertisement on Aarhus University's website.

Aarhus University

Aarhus University is an academically diverse and research-intensive university with a strong commitment to high-quality research and education and the development of society nationally and globally. The university offers an inspiring research and teaching environment to its 38,000 students (FTEs) and 8,300 employees, and has an annual revenues of EUR 935 million. Learn more at www.international.au.dk/