Postdoc in AI for Microbial Carbon Dioxide Conversion Data Framework

The Daasbjerg research group at the Department of Chemistry, Aarhus University, is seeking a candidate for a 31-month postdoctoral position.

This position focuses on AI/machine learning to develop a unified data framework for microbial carbon dioxide conversion, integrating data from methanogens, acetogens, and hybrid projects for standardization, kinetic/thermodynamic measurements, and predictive modeling.

The position is available from 1 May 2026 or as soon as possible hereafter.

Job description/research area

The postdoc will contribute to a project enhancing cross-disciplinary collaboration by creating a unified data framework for microbial carbon dioxide conversion and establishing a predictive AI modeling.

Your profile

- The candidate is required to have a strong background in AI/machine learning.
- The candidates must hold a PhD in Chemistry/Physics.
- Experience in data framework development, kinetic/thermodynamic modeling, and collaborative interdisciplinary research.
- An education history in chemical engineering will be preferred
- Candidates must have experience with international collaborations and serve as a mentor/leader for the research group

Who we are

The Department of Chemistry is among the most successful departments within the Faculty of Natural Sciences at Aarhus University. The department houses several of the Danish National Research Foundation's Centres of Excellence and conducts teaching for many of the faculty's degree programs. Comprising a wide range of scientific areas, the department is a strong partner in interdisciplinary initiatives, particularly with the Novo Nordisk Foundation Carbon Dioxide Research Center and the Interdisciplinary Nanoscience Centre. The Department of Chemistry also educates most chemists in Denmark, with well over 200 active BSc students, a considerable number of MSc students, and more than 100 PhD students. There are more than 40 permanent members of the academic staff, a strong support organization, and a considerable number of affiliated researchers.

The Daasbjerg Research Group at Aarhus University specializes in organic surface chemistry, electrocatalysis, and carbon dioxide conversion technologies, with a strong emphasis on sustainable electrochemical processes and nanomaterial functionalization. Comprising around 20 members - including PhD students, postdocs, and technical staff - the group fosters a collaborative, interdisciplinary environment focused on innovative solutions for carbon capture and utilization.

Place of work and area of employment

The workplace is Gustav Wieds Vej 10C, 8000 Aarhus C, and the employer is Aarhus University, including related departments.

All interested candidates are encouraged to apply, regardless of their personal background. It is a priority that the successful candidate has a personality supporting positive teamwork. Working in Denmark offers opportunities for a good work-life balance. English is widely spoken, though Danish is the primary language of the campus. English is the working language.

Aarhus is Denmark's second-largest city and forms the center of the western parts of the country on the Jutland peninsula. Recently, Aarhus has attracted international attention as a travel destination due to its unique combination of a thriving food scene, high-quality museums, a surrounding beautiful nature, a very lively city due to the "young population", and many cultural events, including music festivals, etc. See e.g.

Application Deadline:
02 February 2026

Institute/Faculty:
Department of Chemistry

Faculty:
Faculty of Natural Sciences

Academic contact person:
Kim Daasbjerg
Professor
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+4523485249

Vacant positions:
1

Number of months:
31

Hours per week:
37

Expected date of accession:
01/05/2026

the recent recommendation by CNN (https://edition.cnn.com/travel/article/aarhus-denmark-things-to-do/index.html). Aarhus is easily reached via local international airports in Jutland within 1 hour of Aarhus, or via Copenhagen or Hamburg Airports, both about a 3-hour train journey from Aarhus.

Aarhus University is consistently ranked among the top 100 universities in the world and offers both engineering and medical schools, as well as traditional disciplines such as the sciences, social sciences, environmental and agricultural sciences, and the arts.

Contact information

For further information please contact: Professor Kim Daasbjerg, +45 23485249, kdaa@chem.au.dk.

Deadline

Applications must be received no later than 2 February 2026.

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/