

Jobbnorge ID: 199707
Deadline: 2/26/2021
Website: <http://www.ntnu.no>
Scope: Fulltime
Duration: Temporary

The Department of Chemistry has a vacancy for a

PhD candidate within Theoretical Chemistry

This is NTNU

At NTNU, creating knowledge for a better world is the vision that unites our 7 400 employees and 42 000 students.

We are looking for dedicated employees to join us.

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

Video: <https://www.youtube.com/watch?v=clgKd1SwGLI>

About the position

The Department of Chemistry (IKJ) has a vacancy for a 100% position as a PhD candidate within the field of theoretical chemistry with focus on development of computational methods for enzyme catalysis. The overall objective of the PhD will be to develop a computational framework where mechanisms and kinetics of enzyme catalysis can be investigated and discovered in full detail, also when one has limited knowledge about the system under study. The appointment has a duration of four years and includes one year of teaching responsibilities.

The candidate will be a part of the theoretical chemistry group (<https://www.ntnu.edu/chemistry/research/theoretical>) at the Department of Chemistry, and the supervisor of the candidate will be Associate Professor Anders Lervik.

Duties of the position

The candidate is expected to work both independently and as part of a team to achieve the overall objective described above. Achieving the objective relies on the development of simulation and analysis methods for improving modeling and our understanding of enzyme-catalyzed reactions. Specifically, this will entail:

- theoretical work within computational chemistry and modelling of enzyme catalysis
- development and implementation of computational methods and algorithms
- performing simulations of enzyme catalysis and analysing simulation results
- dissemination of work through scientific publications and conference presentations

Required selection criteria

The PhD-position's main objective is to qualify for work in research positions. The qualification requirement is that you have completed a master's degree or second degree (equivalent to 120 credits) with a strong academic background in computational chemistry or equivalent education with a grade of B or better in terms of [NTNU's grading scale](#). If you do not have letter grades from previous studies, you must have an equally good academic foundation. If you are unable to meet these criteria you may be considered only if you can document that you are particularly suitable 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, post doctor and research assistant](#).

The candidate must have:

- a strong background in physical or computational chemistry
- experience with molecular simulations, quantum mechanics, and statistical thermodynamics
- experience with programming
- good written and oral English language skills

Preferred selection criteria

- knowledge of molecular simulation techniques relevant for chemical reactions (for instance free energy perturbation methods or rare event methods)

- experience with machine learning and data analysis
- experience in biochemistry

Personal characteristics

We are looking for someone who:

- is creative and curious
- has excellent analytical skills
- is self-driven and able to work independently
- has good communication and collaboration skills, and can use this to efficiently work in teams

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 482 200 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 four years including one year of teaching responsibilities.

Appointment to a PhD position requires that you are admitted to the PhD programme in [Chemistry](#) within three months of employment, and that you participate in an organized PhD programme during the employment period.

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 criteria 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.

It is a prerequisite you can be present at and accessible to the institution daily.

About the application

The application and supporting documentation to be used as the basis for the assessment must be in English.

Publications and other scientific work must follow the application. Please note that applications are only evaluated based on the information available on the application deadline. You should ensure that your application shows clearly how your skills and experience meet the criteria which are set out above.

The application must include:

- CV, certificates and diplomas
- Letter of motivation for a PhD in theoretical chemistry
- Name and address of three referees

If you have academic works - published or unpublished - that you would like to be considered in the assessment, please include up to 5 works in your application, and briefly describe your work.

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.

In the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal suitability.

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

General information

[Working at NTNU](#)

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background.

The city of Trondheim is a modern European city with a rich cultural scene. Trondheim is the innovation 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.

As an employee at NTNU, you must at all times adhere to the changes that the development in the subject entails and the organizational changes that are adopted.

Information Act (Offentleglova), your name, age, position and municipality may be made public even if you have requested not to have your name entered on the list of applicants.

If you have any questions about the position, please contact Anders Lervik, email anders.lervik@ntnu.no. If you have any questions about the recruitment process, please contact Solveig Ikdal, e-mail: Solveig.ikdal@ntnu.no

Please submit your application electronically via jobbnorge.no with your CV, diplomas and certificates. Applications submitted elsewhere will not be considered. Diploma Supplement is required to attach for European Master Diplomas outside Norway. Chinese applicants are required to provide confirmation of Master Diploma from [China Credentials Verification \(CHSI\)](#).

If you are invited for interview you must include certified copies of transcripts and reference letters. Please refer to the application number NVD-31/21 when applying.

Application deadline: 26.02.2021

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Additional information

Place of service:

Trondheim 7491 Trondheim (Trondheim Municipality)