

Jobbnorge ID: 197255
Deadline: 2/1/2021
Website: <http://www.ntnu.no>
Scope: Fulltime
Duration: Temporary

The Department of Materials Science and Engineering has a vacancy for a Postdoctoral Fellowship

Postdoctoral Fellowship within High Temperature Ferroelectric Tungsten Bronzes

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=cJgKd1SwGLI>

About the position

A postdoctoral fellowship is available at the Department of Materials Science and Engineering at the Norwegian University of Science and Technology. The goal is to develop lead-free ferroelectric tetragonal tungsten bronzes for application at high temperatures. Compositional engineering of lead-free tetragonal tungsten bronzes will be applied for the first time to develop compositions with properties suitable for high temperature applications. The goal of this pioneering project is to combine electronic structure calculations and experimental measurements to develop new lead-free ferroelectric materials for a more sustainable future.

In addition to this fellowship, two PhD candidates are involved in the same project, which is funded by a Research Council of Norway FRIPRO grant. This project builds on a decade of experience with research on ferroelectric tungsten bronzes. The postdoctoral fellow will be a part a larger group of post docs and PhD students working on ferroelectric materials within the Functional Materials and Materials Chemistry Research Group (FACET - <https://www.ntnu.edu/ima/research/facet>).

For information about the position, please contact: Professor Tor Grande, grande@ntnu.no

Duties of the position

We are seeking a postdoctoral research fellow to join our team of experimental and computational scientists. The position will mainly focus on performing density functional theory (DFT) calculations on tungsten bronzes to understand their structure, polarization and ferroelectric/piezoelectric properties. The postdoctoral fellow will collaborate closely with both experimental and computational scientists in our group. The candidate must hold, or soon obtain, a PhD degree within the field of materials science, materials chemistry or solid-state physics.

Required selection criteria

A postdoctoral research fellowships is a qualification position in which the main objective is qualification for work in academic positions. You must have completed a Norwegian doctoral degree in materials science, materials chemistry or solid-state physics or corresponding foreign doctoral degree recognized as equivalent to a Norwegian doctoral degree is required.

If, for any reason, you have taken a career break or have had an atypical career and wish to disclose this in your application, the selection committee will take this into account, recognizing that the quantity of your research may be reduced as a result.

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](#).

Other required selection criteria

The candidate must have, or complete before the march 2021, a PhD degree in the field of materials science, materials chemistry or solid-state physics.

Excellent written and oral English language skills as well as presentation skills are required.

Previous experience with first principles calculations on oxide materials.

Personal characteristics

- The successful candidates can take responsibility for progress and can work independently.
- The candidates have good communication skills and are able to collaborate closely with other members of the research group.
- The candidates must be diligent and able to show initiative on behalf of their own work.

In the evaluation of which candidates are best qualified, emphasis will be placed on education, experience and personal suitability, in terms of the qualification requirements specified in the advertisement.

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

The employment period is 3 years.

Postdoctoral candidates are placed in code 1352, and are normally remunerated at gross from NOK 545 300 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 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.

The position is subject to external funding by the Research Council of Norway.

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
- Academic works - published or unpublished - that you would like to be considered in the assessment.
- Name and address of three referees

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 Professor Tor Grande grande@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 NV-116/20 when applying.

Application deadline: 01.02.21

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Additional information

Place of service:

Trondheim 7491 Trondheim (Trondheim Municipality)