

Director
of IT4Innovations Supercomputing Center
VSB – Technical University of Ostrava
announces a selection procedure for the post of
**Postdoc - Quantum Thermal
Modelling for Nanotechnologies Lab**

The position is suitable for both women and men.

A 2 years Post-doc position (with possibility of extension upon mutual agreement) at the IT4Innovations national supercomputing centre is open to applicants. The Material Design group led by Dr. Dominik Legut within the Modeling of Nanotechnology Lab is looking for interested candidates for a research project in the field of QUANTUM THERMAL AND ELECTRONIC TRANSPORT, THERMOELECTRICITY within the Czech Science National grant No. 26-21973S - A new era for nitrides - towards more efficient thermoelectricity and phonoelectricity, guiding the design of advanced materials for energy conversion applications in a close collaboration with experimental and theoretical colleagues from Czech Republic, and abroad.

Activity description:

- conduct research aligned with the candidate's scientific interests and preliminary project findings,
- focus the work either on:
 - application of existing theoretical frameworks in solid-state physics, electronic structure, lattice dynamics, and quantum transport, or
 - development of new theoretical approaches in these fields, particularly for novel materials.
- collaborate closely with experimental research groups to ensure consistency between theory and experiment,
- adapt and refine the project's specific scientific goals based on emerging insights,
- develop and pursue **original and creative research ideas**, with substantial freedom to shape the theoretical direction of the work.

Full time equivalent: full-time employment
Type of job contract: fixed-term employment
Expected start of employment: 1. 5. 2026 or as agreed

We require:

- Ph.D. (or soon be defended) in physics, chemistry, materials science, or a related field,
- good knowledge of solid-state physics,
- excellent proficiency of written and spoken English,
- proficiency in Linux environment, advanced data manipulation (e. g. python, perl, etc.) intermediate/advanced programming skills,
- experience in materials modeling (experience in transport theories and ab initio methods would be a strong advantage).

We offer:

- work in a promising organization,
- salary evaluation according project conditions and candidate's experience,
- modern laboratory and classroom facilities,
- opportunity to participate in excellent research team,
- possibility of further education,
- 6 weeks of holidays,
- flexible working hours,
- university kindergarten,
- contribution option to pension plan,
- company catering in the canteen,
- MultiSport card,
- other employee benefits according to the employer's offer.

Your personal data will be processed to the extent necessary for the implementation of the selection procedure in accordance with EU Regulation 2016/679.

<https://www.vsb.cz/export/sites/vsb/en/.content/files/Informace-pro-uchazece-o-zamestnani-AJ.pdf>

The application form substantiated with a letter of motivation and CV should be sent electronically to the email address: petra.brozova@vsb.cz **until 19. 4. 2026.**

In the subject of the email, please state "Open Call for the position of the Postdoc - Quantum Thermal for NANO".