



## Postdoc position in the field of advanced high-resolution analytical transmission electron microscopy

Department for Nanostructured Materials at Jožef Stefan Institute (<http://nano.ijs.si/>), Ljubljana, Slovenia offers a postdoctoral opportunity in the field of advanced high-resolution analytical transmission electron microscopy under the supervision of prof. dr. Sašo Šturm.

**The duration of the postdoc position is one year with the possibility of prolongation for another year.** Posting will remain open until filled but no later than the end of 2020. The gross salary is predetermined based on postdoctoral step rates and amounts to around 2.200 EUR, yielding a net salary of approximately 1.450 EUR.

The postdoc will work at the interface between the *Advanced material processing* and *Advanced microscopy* research groups. As an example, one goal is to design and produce permanent magnets with radically increased efficiency than the current state of the art, through the advanced tailoring of grain-interface phases where advanced microscopy characterization and in situ heating experiments in the microscopy will represent a vital part of the whole research.

### What You Will Do:

- Execution of structural and chemical characterization of interfaces, mainly grain boundaries, in various material systems at the atomic-scale using probe-corrected JEM-ARM200CF equipped with Gatan GIF Quantum, Centurio EDS system (HAADF/ABF/BF STEM, EELS, EDXS). In situ liquid-cell/electrochemical, biasing, heating, cooling, and tomography stages are also available.
- Dynamic assessment of grain boundary properties investigated by in-situ experiments.
- Development of routines for efficient characterization of large data sets.
- Work in teams effectively, joint weekly meetings, and regular publishing of scientific results to scientific journals.

### What is Required:

- Ph.D. in physics, or materials science, physical chemistry, materials engineering, or related experimental field or equivalent training/experience.
- Demonstrated experience in the independent use of various advanced transmission electron microscopy techniques.
- Deep commitment to research and experience in writing papers supported by a strong publication record in scientific/technical journals.
- Demonstrated ability to work efficiently in large teams with colleagues at all career stages and with varying scientific backgrounds and experience in handling multiple projects and tasks in parallel.

Applications, including curriculum vitae, and a motivation letter, should be sent by e-mail by December 15th, 2020, to the following address:

prof. dr. Sašo Šturm, E-mail: [saso.sturm@ijs.si](mailto:saso.sturm@ijs.si).

Department for Nanostructured Materials

"Jozef Stefan Institute", Jamova 39

1000 Ljubljana, Slovenia