



Preliminary information. See [KTH's Job Vacancies Website](#) for any official announcement, which will also provide a link to the application portal.

Title: Postdoc in atom probe tomography for sustainable metals

Job description

The Hultgren Laboratory at the Department of Materials Science and Engineering, KTH Royal Institute of Technology, invites applications for a postdoctoral researcher position in atom probe tomography (APT). The successful candidate will join our materials characterization team and conduct research aimed at advancing the sustainability of metallic materials.

The Hultgren Laboratory is equipped with an EIKOS-UV atom probe instrument (laser and voltage pulse modes), funded through Hugo Carlsson's Foundation under Jernkontoret, KTH research infrastructure, and the Department of Materials Science and Engineering. Our research focuses on sustainable metallic and composite materials, with ongoing projects spanning hydrogen-tolerant alloys for fossil-free energy systems, metallic materials for electrification of the automotive industry, alloy design compatible with high recycled-material content, and nanoscale precipitation and trace element behavior across different material systems.

The postdoctoral researcher will conduct APT characterization and data analysis as a core part of individual and collaborative research projects, and apply complementary techniques to establish process–structure–property correlations in metallic materials. The role also involves contributing to the development of novel alloys and processing routes through advanced microstructural understanding, collaborating with academic and industrial partners in Sweden and internationally, and supporting student supervision and dissemination of results through publications and conferences.

What we offer

- A position at a leading technical university that generates knowledge and skills for a sustainable future.
- Engaged and ambitious colleagues along with a creative, international and dynamic working environment
- Work in Stockholm, in close proximity to nature
- Help to [relocate and be settled in Sweden and at KTH](#).
- An opportunity and support to develop expertise via access to a broad range of advanced materials characterization instruments at Hultgren laboratory.

[Read more about what it is like to work at KTH](#)

Qualifications

Requirements

- A doctoral degree or an equivalent foreign degree in materials science, materials physics, materials characterization, or closely-related area for the proposed research. This eligibility requirement must be met no later than the time the employment decision is made.

- Demonstrated experience in APT characterization of metallic materials, including specimen preparation, data acquisition, and reconstruction/analysis
- The ability to express yourself very well in English, spoken and written, as this will be required in day-to-day work
- You are self-motivated with a strong ability to take initiative and run projects

Preferred qualifications

- A doctoral degree or an equivalent foreign degree, obtained within the last three years prior to the application deadline
- Background in physical metallurgy and solid-state phase transformations
- Experience with complementary characterization techniques (e.g., FIB-SEM, TEM)

Great emphasis will be placed on personal skills.

As a person, you have well-developed analytical and problem-solving skills and like to take responsibility. You have strong collaboration skills including the ability to lead and to support research.

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