

The Budapest Neutron Centre at the HUN-REN Centre for Energy Research is opening a tenure-track position



for a TOF Neutron Scattering Instrument Scientist

The HUN-REN Centre for Energy Research is the host institute for the Budapest Neutron Centre (BNC) and responsible for the operation of the Budapest Research Reactor, providing a source of neutrons, for the investigation of the structure and composition of condensed matter.

The BNC is one of the largest research infrastructures in Hungary and Central Europe and operates an international user program with access to 14 neutron beam instruments. The BNC is a respected member of the European research network, and its staff conduct high-impact multidisciplinary research.

The BNC's TOF-ND is a general-purpose thermal neutron time-of-flight diffractometer. We are looking for an instrument scientist to conduct user experiments and further develop the instrument, whilst also undertaking their own programme of research.

Duration of employment:

The position is initially offered for a fixed term of three years, with the possibility of being subsequent extension into a permanent position.

Form of employment: full-time

Place of work: Konkoly-Thege Miklós Street 29-33., 1121 Budapest, Hungary

Essential tasks of the job:

The successful candidate will be responsible for the operation of the TOF-ND, performing user experiments, carrying out data reduction, and participating in the interpretation of results. The post-holder will also contribute to developing concepts for a major upgrade of the instrument including guide and chopper systems, shielding, installation of the inelastic scattering setup, and improvement of the instrument control and the data reduction software etc. They will also be required to carry out their own research in materials science and/or neutron optics.

Requirements:

- Interest in experimental and developmental work
- Experience in diffraction and/or neutron instrumentation
- Ability to work precisely, and undertake independent work
- Good teamwork skills
- Degree in natural sciences (preferably PhD)
- Good knowledge of written and spoken English
- No criminal record

Advantages:

- Deep knowledge of metallurgy
- Proficiency in data processing of diffraction measurements (Rietveld, RMC)
- Experience with time-of-flight neutron data analysis
- Existing field of research in neutron/X-ray diffraction
- Experience with instrument control
- Knowledge of programming languages (C++, Python, LabView)

Documents and certificates to be submitted as part of the application:

Applicants are requested to submit a CV, cover letter, copies of their degree certificates, and up to four letters of recommendation, together with written consent that their personal data may be obtained by the evaluating committee in connection with their application.

Application deadline: The position will remain open until filled

Earliest start date: 1st of September, 2025

For more information on the application please contact Dr Zoltán Dudás at +36 1 392-2222 ext.1414 or dudas.zoltan@bnc.hu and/or bnc@bnc.hu