

Postdoctoral Research in Materials Science for Environmental Protection

About the job

Are you interested in developing silica materials for environmental protection and the circular economy? The Budapest Neutron Centre (BNC) invites you to apply for a two-year postdoctoral position. At the Budapest Neutron Centre, we value your expertise and independency, creating an environment where you can thrive both personally and professionally.

Expected start date and duration of employment

The position will commence in November 2025, or as soon as possible thereafter. The project is funded for a period of two years, with the possibility of an additional three-year extension.

Job description

This position provides an excellent opportunity to engage in the emerging research field of silica-based adsorbents for applications in water purification and the circular economy. The postdoctoral project is jointly supported by CERIC-ERIC (<https://www.ceric-eric.eu/>) and the Budapest Neutron Centre (<https://bnc.hu/>) and will focus on the rational design and development of advanced silica adsorbents. The successful candidate will contribute to the synthesis, structural characterization, and performance evaluation of novel silica-based materials, with particular emphasis on elucidating structure–activity relationships that underpin their precious metals and rare earths adsorption efficiency and selectivity, targeting pollutants such as silver, palladium, and europium.

Your profile

Applicants should hold a PhD in materials science, chemistry, or physics. Expertise in experimental chemistry and structural characterization methods is essential. In addition, basic skills in small-angle scattering (neutron or X-ray) and a proven track record of publishing in peer-reviewed journals are considered advantageous.

The project will be led collaboratively with the silica and mesoscale structures research groups at BNC, under the joint supervision of Zoltán Dudás. Utilizing the CERIC-ERIC infrastructure to characterize the synthesized adsorbents.

Our team

Based at BNC, we are a young, dedicated, and international team of six colleagues, specialized in development, characterization, and application of silica materials across a broad spectrum of applications.

What we offer

The BNC offers an exciting interdisciplinary environment with many national and international, as well as industrial, collaborators. Every year, the project supports conference participation. As a newcomer, you will have the opportunity to work in a stimulating environment and gain experience in neutron-based characterization techniques. We offer a competitive salary according to Hungarian standards.

Do our expectations match yours?

Then we look forward to receiving your application (CV, motivation letter, certificates and at least two references).

Place of work and area of employment

The workplace is located in a green area, away from the noise of the city, at the Budapest Neutron Centre (1121 Budapest, Konkoly-Thege Miklós út 29–33).

Contact information

For further information, please contact: Dr. Zoltán Dudás, dudas.zoltan@bnc.hu