Budapest Neutron Centre (BNC*)

BNC – a multidisciplinary center for natural sciences – operates the largest research infrastructure in Hungary, the 10 MW Budapest Research Reactor (BRR) with its experimental stations. The BRR has been utilized as a neutron source for scientific investigations and a complex source of irradiations for materials testing and modification, diagnostics in nanotechnologies, engineering and healthcare. It serves the society by producing radioisotopes for the industry and medicine, diagnosis and radiotherapy.

Science, innovation, production and services in

- NEUTRON IMAGING; neutron radiography and tomography non-destructively visualize the internal structure of objects in 2D and 3D
- NEUTRON ACTIVATION; gamma radiation of nuclear activation products for diagnosis, therapy and non-destructive analysis. BNC operates one of the word-leading NAA and PGAA laboratories.
- NEUTRON SCATTERING; studies on the atomic, nano- and the micro scale

BNC

- provides researchers with 15 neutron instruments and more than 3.000 beam hours/year
- the instruments are supported by a variety of sample environments and data analysis and visualization capabilities
- provides access to the international and national neutron user community through a peer-review arrangement
- is strongly committed to the training of future professionals, in cooperation with Hungarian universities, accommodates students for laboratory practice for studying nuclear-based techniques

The BRR is open to the public. Further information at **www.bnc.hu.**

* BNC – consortium of the Centre for Energy Research and Wigner Research Centre for Physics of the Hungarian Academy of Science

http://sine2020.eu

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