

## **Detectors for neutron scattering instruments at IBR-2 reactor in FLNP JINR**

One of the priority of FLNP JINR is the development of detectors for thermal and cold neutrons. There are 14 neutron instruments for condensed matter investigation at the pulsed IBR-2 reactor. Every instrument operates in time-of-flight mode and implements certain scattering method. The performance of any instrument mainly defines by characteristics of its detector system consisting of a registering unit and DAQ electronics. At IBR-2 reactor two types of registering units differing by the converter material are used in the detectors. Most part of detectors based on the gaseous He-3 converter, and several detectors based on scintillator ZnS(Ag)/6LiF. Besides this, the infrastructure for the fabrication of detectors based on boron-10 converter is developing now. The DAQ system of the detectors use the electronics solutions developed in FLNP as well as the commercially available electronics. In the report the status and future prospects of the study and implementation of neutron detector technique is considered.

**Primary author:** BODNARCHUK, Viktor (Joint Institute for Nuclear Research)

**Presenter:** BODNARCHUK, Viktor (Joint Institute for Nuclear Research)

**Session Classification:** Instruments