NEUTRON SCATTERING INSTRUMENTATION FOR CONDENSED MATTER RESEARCH AT THE IBR-2 PULSED REACTOR: CURRENT STATE AND FURTHER DEVELOPMENTS

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The complex of neutron scattering instruments of the IBR-2 high flux pulsed reactor presently consists of 14 instruments, including diffractometers, small angle scattering spectrometer, reflectometers, inelastic neutron scattering spectrometer.
The recent developments of the instruments focused on improvement of the technical parameters of the spectrometers and extension of research capabilities are reviewed. They include installation of the intermediate part of the supermirror neutron guide at the DN-6 diffractometer, installation of new Fourier chopper at the FSD diffractometer, replacement of the Fourier chopper of the FSS diffractometer, fabrication of new changeable collimation unit for YuMO SANS spectrometer.
The progress in development of the new small angle neutron scattering and imaging spectrometer to be installed at the 10A beamline is discussed. The realization of the first state of the project of the new inelastic neutron scattering spectrometer in inverted geometry BJN is started.