

Experimental station SHINE for research in the field of nuclear energy technologies at the accelerator complex NICA JINR

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SHINE (Station for Head-on Investigations in Nuclear Energy technology) is a new experimental setup at the Nuclotron slow extraction channel of the accelerator complex NICA. The constructed biological shielding is designated for experiments with high intensity beams of ions from protons to gold in an energy range from hundreds of MeV to 5 GeV per nucleon. The setup is equipped with a set of beam detectors, a data acquisition system, and auxiliary detectors for registration of secondary particles, including neutrons. The main tasks at the first stage of the setup operation are presented. A new collaboration for applied and fundamental research at the station using the capabilities of the NICA accelerator complex is being formed.