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Modernization of the Ion Source "Krion-2" and Preparation of Experiments to Determine the Dependence of the Energy of Alpha Particles on the Ion Charge

The «Kryon-2» (Electron Beam Iion Source - EBIS) ion source has been upgraded. A new electron collector designed to work with an electron beam with an intensity of up to 0.5 A and an accelerating voltage of up to 20 kV has been developed. At the same time, the ability to operate the source in the reflective mode is preserved. Cryogenic tests of semiconductor silicon detectors in a magnetic field of up to 3 Tesla were carried out. A device has been prepared for feeding 220Rn to the ion source for producing highly charged 220Rn ions to determine the energy dependence of the emitted alpha particles as a function of the charge of the ions.

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