

Multiple heavy ion injection into NICA Booster

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The NICA accelerator complex (JINR) includes a Heavy ion linear accelerator (HILAC) designed for injection of heavy ions (with the mass to charge ratio $A/Z \leq 6.35$) into the storage synchrotron-Booster. Commissioning sessions with accelerated Xe²⁸⁺ ions showed insufficient beam intensity of the required heavy ion beam parameters for experiments in the Collider. A multiple injection technology has been developed and is currently being implemented for increase of beam intensity. The paper presents the results of 3-fold and 10-fold injection for heavy ion experiments in the NICA collider.

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