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High-intensity polarized H- source development and operation at BNL

Wednesday, 22 May 2024 16:00 (2 hours)

The AGS-RHIC injector complex includes H- ion sources at 35 keV, 750 keV RFQ and 200 MeV Linac. This report will focus on the recent upgrade of the 35 KeV Low Energy Beam Transport (LEBT) with three sources: two high-intensity magnetron H- sources and an Optically Pumped Polarized Ion Source (OPPIS) polarized H- source. There were still significant beam intensity losses in the 8 m long OPPIS transport line due to H- stripping, therefore, to meet the demand for the higher beam intensity in the 2024 polarized run, the OPPIS LEBT length was reduced by about two meters. Another possibility for increasing beam intensity is to increase the beam pulse width. The OPPIS performance and operation in Run-2024 will be presented.

Footnotes

Funding Agency

Paper preparation format

LaTeX

Region represented

North America

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