CHARACTERISTICS OF THE BEAM FROM THE GTS-ECR SOURCE IN CERN'S ION LINAC

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Abstract

The ion injection chain for the LHC includes a new ECR ion source, in order to increase the ejected Pb ion intensity from Linac 3. The source has delivered up to twice the intensity of lead 27+ when compared to the former ECR4 ion source. This report details the measurements of the beam quality through the Linac, and the characteristics of the energy ramping cavity which allows multi-turn injection in the momentum phase space in the following sychrotron.

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