

Development and Testing of a 5 MeV Mott Polarimeter for Precision Measurement of Polarization for P2

The P2 experiment at Mainz Energy-Recovering Superconducting Accelerator (MESA) aims to measure the Weinberg angle with an uncertainty of 0.15%. This implies that the uncertainty of the beam polarization measurement must be less than 1%. To achieve this, a polarimetry chain with polarimeters operating at different energies and principles is being developed.

As a part of this polarimetry chain, a 5 MeV Mott polarimeter has been fabricated, installed, and tested at the MAMI facility. The results of these tests will be presented during this talk.

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