ISOLDE Workshop and Users meeting 2011

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Tilted-foils setup for nuclear spin polarization of post accelerated beams

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Content :

Spin polarized nuclei are of great interest for many applications, for example in nuclear structure, solid state and biological physics. Recently, a project was started at ISOLDE to evaluate the tilted-foils technique applied to post accelerated beams at REX-ISOLDE. Thin tilted foils are introduced into the beam line which induces nuclear spin polarization and the degree of attained polarization can be measured with Coulomb excitation or more commonly with Beta-NMR. This year, the first online studies took place with a Beta-NMR setup that has been under construction behind REX-ISOLDE for this evaluation project. In this contribution, I will present the setup, the measurement and current results from the analysis, and an outlook for future improvements and extensions to the experiment.

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