In beam tests at CCB of acceleration components for the EURISOL radioactive beam facility

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EURISOL program aims at delivering radioactive ion beams, the tool that can be used by physicists to reach exotic nuclei and will help to investigate the nuclear structure at the extremes of the nuclear landscape. The R&D being performed in the framework of the EURISOL project will lead to a solution enabling a production of exotic fragments by irradiation of heavy targets with intense proton beams, separation and further acceleration.

In the first step it is investigated a possibility to use of intense H- beam at 1GeV energy, that will allow for multiple extraction and simultaneous irradiation of several target stands. It is however required that after splitting the beam emittance will be preserved.

We propose to build in IFJ PAN a prototype of a "Magnetic Chicane" [1] and perform in beam tests at CCB in order to evaluate its influence on the beam emittance. It seems that the excellent beam parameters required for the proton therapy will make the CCB proton beam particularly useful also for such applications.

[1] A.Facco et al., Phys. Rev. Special Topics - Accelerators and Beams **10**, 091001 (2007).