

INSTITUT FÜR ISOTOPENFORSCHUNG UND KERNPHYSIK
DER UNIVERSITÄT WIEN

E I N L A D U N G

zum

S E M I N A R V O R T R A G

von

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**Beam dynamics simulation of a post-accelerator for the next
generation European radioactive beam facility EURISOL**

A superconducting linac for radioactive beam acceleration up to 100 MeV/u has been studied in the framework of the EURISOL collaboration. The linac, fed by a high charge state breeder, is based on high gradient SC quarter and half-wave resonators and includes superconducting RFQs. It was designed for ion acceleration of all masses and especially studied for mass number 132. Two stripping stages are foreseen along the linac. Multi-charge beam transport dynamics simulations have been performed with resonators realistic field distribution. The design of the linac and the beam dynamics simulation show that the proposed post-accelerator scheme could reach the EURISOL demands. The beam quality and transmission are excellent in the non-stripper mode of operation, where most of the experiments are expected. In the 2-strippers mode of operation, the beam emittance and transmission can be considered satisfactory and the particles reach the maximum energy. Interfering isobars can be attenuated by several orders of magnitudes at the price of transmission.

Mittwoch, 26. Juni 2002, 16:30 Uhr

**1090 Wien, Währingerstr. 17, "Kavalierstrakt",
1. Stock, Seminarraum von VERA**

P. Hille

W. Kutschera