

Fakultät für Physik

Isotopenforschung und Kernphysik

E I N L A D U N G zum

VERA-SEMINAR

von

Christof Vockenhuber

Laboratory of Ion Beam Physics, ETH Zurich, Switzerland

AMS of stable isotopes - shouldn't that be easy?

Accelerator Mass Spectrometry (AMS) has become the most sensitive method to measure long-lived radionuclides at minute concentrations. The idea to use the same method for measuring stable isotopes has been around since the early days of AMS. At several laboratories special ion sources have been installed and even dedicated facilities were built that focus on the AMS of stable isotopes. The advantages over conventional mass spectrometers are obvious, first molecular interferences can be eliminated and second high ion energies allow to separate isobars. However, despite of several attempts at various scales the use of AMS for stable isotopes did not take off and published results are sparse. At ETH Zurich a SIMS ion source is coupled to the 6 MV EN Tandem accelerator and has been used for several projects in the past 15 years. In this talk I will report on my own experiences in that field, in particular on the astrophysical use of this method, and that one not always gains by combining two successful methods.

Donnerstag, 14. November 2013, 16:30 Uhr

1090 Wien, Währinger Str. 17, "Kavalierstrakt", 1. Stock, Victor-Franz-Hess Hörsaal

W. Kutschera