Contribution ID: **10** Type: **poster**

Ion beam preparation at the new TRIGA-SPEC facility

The TRIGA-TRAP mass spectrometer and the TRIGA-LASER laser spectroscopy setup, forming the TRIGA-SPEC experiment, were recently installed at the research reactor TRIGA Mainz. The new facility aims for high-precision measurements of the ground state properties of short-lived neutron-rich radionuclides in the mass range $80 < A < 150$. The radionuclides are produced by thermal neutron-induced fission of an actinoide sample inside the reactor and extracted by a gas-jet system. Their ionization takes place in an ECR ion source. The ions of interest will subsequently be mass-separated in a 90° dipole magnet prior injecting into a radiofrequency ion beam cooler and buncher in order to reduce the ion beam's emittance. After ejection a pulsed drift tube will decelerate the ions for the TRIGA-TRAP part of the experiment where a double Penning-trap system for mass spectrometry is already operational. The TRIGA-LASER experiment will use ions of high energy for collinear laser spectroscopy. A switchyard will distribute the ions among both setups. The status of the ECR source, the mass separator and the ion beam cooler and buncher as well as recent results from TRIGA-SPEC will be presented.

Is this an invited talk? (please answer yes or no)

no

Would you prefer your contribution to be a poster presentation? (please answer yes or no)

no

Would you prefer your contribution to be an oral presentation? (please answer yes or no)

yes

Are you a student, postdoc or an attendee from an "emerging"country and would like to apply for financial support?

no

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Track Classification: Production and manipulation of RIB