

Abstract Submitted  
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**Rare isotope production at the ALTO facility** KAROLINA KOLOS, IPN Orsay, France — The ALTO facility (Accélérateur Linéaire et Tandem d'Orsay) at Institut de Physique Nucléaire d'Orsay received its authorization for operating. The aim of this facility is to provide neutron rich isotope beams for both nuclear physics study (far from the valley of stability) and developments dedicated to next generation facilities such as SPIRAL2. The neutron rich isotopes are produced by photo-fission of  $^{238}\text{U}$  induced by the 50 MeV  $10\mu\text{A}$  electrons from the linear accelerator. The isotopes coming out from the fission target effuse towards an ion source and are extracted to the on line separator PARRNe. Additional experimental beam line has been constructed and a new detection system BEDO (BEta Decay studies at Orsay) has been mounted and commissioned. The central element of the BEDO is a complex of Compton suppressed germanium detectors and plastic scintillators dedicated to study beta-decay. Gamma rays from the beta decay of  $^{84}\text{Ga}$  isotopes were measured with the prototype of the BEDO system. The gallium atoms were selectively ionized with a newly developed laser ion source. We have improved level schemes of certain descendants of gallium:  $^{83,84}\text{Ge}$  and  $^{84}\text{As}$ . The experimental results will be presented and compared with the shell model calculation.

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