

Towards High Intensity Energy ISOLDE: extrapolation of yields for accelerated isotopes at REX-ISOLDE

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Since the first year of operation, REX-ISOLDE has been delivering numerous post-accelerated radioactive beams [1,2]. An update of the ISOLDE database 3 is being done, including REX efficiencies for more than 50 isotopes corresponding to more than 15 elements. Based on this data the yields of post-accelerated beams was extrapolated for the upgrade of the ISOLDE facility, the so-called High Intensity Energy ISOLDE project.

A method will be demonstrated to predict yields for post accelerated isotopes at HIE-ISOLDE starting from the existing low energy ISOLDE yield database. The REX post acceleration system has the potential to transport and accelerate most of the 700+ radioisotopes from 65 elements of ISOLDE's repertoire thanks to the generic approach used for charge breeding and acceleration.

[1]: J. Cederkall et al., nucl. Phys. A746 (2004) 17c-21c

[2]: D. Voulot et. al. Nucl. Instrum. and Meth. A, proceeding of the EMIS 2007 conference, to be published

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