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Development of offline ion source for collinear laser spectroscopy at the SLOWRI facility in RIKEN

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We have prepared an offline ion source mainly for a planned collinear laser spectroscopy of RI beams at the SLOWRI facility in RIKEN. It was designed to provide low-emittance ion beams including refractory elements such as Zr, by combining laser ablation of a solid target in He gas and RF ion guide system [1]. We have connected the ion source to a test beamline and observed about 10^7 singly charged ions per laser pulse (≤ 10 Hz) extracted at 10 keV. The current situation including tests to evaluate the performance will be presented.

References:

[1] M. Wada *et al.*, Nucl. Instrum. Methods Phys. Res. **B** 204, 570 (2003).

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