

eurorib'10

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New laser setup for the selective isotope production and investigation in a laser ion source at the IRIS facility

New laser installation for the resonance ionization spectroscopy in a laser ion source and for rare isotope production has been recently built and put into operation at the IRIS facility (PNPI, Gatchina). This is a significant improvement of a target-laser ion source device of the IRIS mass-separator, working on-line with 1 GeV proton beam of PNPI synchrocyclotron. It makes us possible to get the isobarically clean radioactive isotope beams of a number of chemical elements. New laser setup should provide the two- or three- resonance step ionization in the range of wavelength of 200–850 nm. Two narrowband scanning dye lasers will be applied for the laser spectroscopy inside the target-ion source device of the IRIS mass-separator. The first off-line and on-line tests of the laser setup for Tl and In stable and radioactive isotopes have been carried out at IRIS facility.

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

no

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yes

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no

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Track Classification: Production and manipulation of RIB