

# Current status of CLaSsy for the laser spectroscopy at RAON

Thursday, November 14, 2024 1:00 PM (1h 30m)

CLaSsy is an experimental setup designed for laser spectroscopy of radioactive isotopes at the RAON ISOL facility of the Institute for Rare Isotope Science (IRIS). Laser spectroscopy provides model-independent determinations of nuclear ground state properties, such as mean-square charge radii and electromagnetic moments. Recently, we successfully obtained a spectrum of Kr ions using collinear laser spectroscopy. The Kr ion beam is produced by an offline source, which is a hot cathode plasma ion source. The ion beam was neutralized by passing it through a charge exchange cell filled with Rb vapor before interacting with the laser. The fluorescence generated during resonance was measured with a photomultiplier tube to obtain the spectrum. Instead of scanning the laser frequency, we stabilized it and continuously varied the ion beam's speed using an external electric field prior to neutralization to obtain the spectrum. In this presentation, the status and test results of CLaSsy will be described.

## Paper submission Plan

No

## Best Presentation

Yes

## Contribution track

ICABU WG3. Beamline and Instrumentation

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**Session Classification:** ICABU Poster Session

**Track Classification:** ICABU: ICABU WG3. Beamline and Instrumentation