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## Commissioning of the CLaSsy system at RAON

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CLaSsy is an experimental setup designed for laser spectroscopy of radioactive isotopes at the RAON Isotope Separation On-Line (ISOL) facility of the Institute for Rare Isotope Science (IRIS). Laser spectroscopy provides access to mean-square charge radii through isotope shift measurements and extraction of nuclear magnetic dipole and electric quadrupole moments from hyperfine structure analysis. Recently, we have successfully observed the optical D1 and D2 transitions for  $^{21,22,23}\text{Na}$  isotopes in the form of bunched beam provided by the Radio Frequency Quadrupole-Cooler Buncher (RFQ-CB) at the ISOL facility. For stable  $^{23}\text{Na}$ , we obtained the hyperfine splitting of the ground states of  $3^2\text{S}_{1/2}$  of 1.77 GHz with the FWHM for individual peaks approximately 200 MHz at the ion beam energy of 20 keV. In particular, we employed both collinear and anti-collinear geometry to calibrate the ion beam energy, which allows accurate isotope shift measurements. In this talk, we will present the results of the recent commissioning of the CLaSsy system and an outlook on future experiments.

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