

# Direct reactions and spectroscopy with hydrogen targets: past 10 years at the RIBF and future prospects

Contribution ID: 44

Type: **Invited talk**

## Kiwis or frisbees? Onset of deformation above $N=50$

*Wednesday, 2 August 2023 09:30 (25 minutes)*

The SEASTAR campaigns allowed us to have a first look into the structural evolution of neutron rich Ge isotopes, up to  $N=56$ , through in-beam gamma spectroscopy. In addition, the availability of the EURICA array for the first campaigns allowed to efficiently do decay spectroscopy on most neutron rich isotopes, including Se up to  $N=60$ . The spectroscopy hinted at a rich picture for the evolution of quadrupole deformation in this region, ranging from the onset of collectivity next to the shell (from  $^{84}\text{Ge}$ ) to potentially triaxial structure in  $^{86}\text{Ge}$ , and signatures for a prolate-oblate shape coexistence in then neutron-rich Se isotopes. The exploration into this region of the nuclear chart will be reviewed. It will be put into context with the structural evolution around  $N=56-60$  in higher- $Z$  isotopes like Zr, and will be related to more recent approaches taken at RIBF.

**Primary author:** WERNER, Volker (TU Darmstadt)

**Presenter:** WERNER, Volker (TU Darmstadt)

**Session Classification:** Collectivity from Zn to Zr