

## Research on the rare isotope nuclear physics at CENS

*Monday, 8 August 2022 11:50 (40 minutes)*

Exploring the limits of nuclear existence plays an important role in understanding the particle stability of neutron-rich and proton-rich nuclei. It provides many opportunities to study exotic nuclear structures, nuclear reactions and nuclear astrophysics, and it can be a benchmark for theoretical mass models at the extremely exotic region.

In this talk, the research on the rare isotope nuclear physics at Center for Exotic Nuclear Studies (CENS) will be introduced. The details of the experiments and plans to detector development for nuclear experiments will be also presented. In addition, a search for the determination of neutron driplines for fluorine, neon, and sodium will be presented along with comparisons with nuclear mass and structure models. These results provide new keys to understanding the nuclear stability at extremely neutron-rich conditions.

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