

## Charge-particle spectroscopy of exotic nuclei with the Optical TPC

*Monday 25 November 2013 14:10 (30 minutes)*

The Optical TPC detector has been developed to study the very rare and exotic decays with emission of charged particles.

The primary goal was to study in detail the  $2p$  radioactivity, but the device was proven successful also in the beta-delayed particle spectroscopy. In the talk, the main results obtained for beta-delayed proton emission and for  $2p$  radioactivity in the region of the doubly magic  $48\text{Ni}$  will be summarized. The cases where the OTPC chamber has advantages over traditional set-ups based on Si detectors, will be discussed. The examples include multiparticle decays, detection of low energy particles on a large background of beta radiation, or precise branching ratio measurements.

Finally, some ideas for possible future experiments will be presented.

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**Session Classification:** Structure Light Nuclei