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Exotic decay modes studied with the Optical TPC

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Over the last decade, the optical-readout time projection chamber developed in Warsaw has been applied to study a variety of rare and very exotic decay channels with emission of charged particles. The device, originally developed for studying two-proton radioactivity, turned out to be extremely well suited for studying delayed (multi) proton emission, in particular when low-energy protons are involved. Protons with energies down to ~150 keV have been detected and their energy measured. In this talk, those cases will be presented for which the OTPC presents advantages with respect to traditional, silicon-based, measurements. Particular focus will be given to those studied at ISOLDE. An outlook on future perspectives will be given.

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