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Two-proton radioactivity of $^{48}\text{Ni}$

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In experiment performed at NSCL facility we studied the decay of extremely neutron deficient isotope of $^{48}\text{Ni}$. Ions were implanted into a gasesous detector, the Optical Time Projection Chamber which allows to record tracks of charged particles. Six events of $^{48}\text{Ni}$ were observed, the two-proton radioactivity (four events) and the $\beta$–decay (two events) channels were clearly identified. The half–life of $^{48}\text{Ni}$ is determined to be $T_{1/2} = 2.1^{+1.4}_{-0.4}$ ms. The results of three–dimensional events reconstruction as well as comparison of results with theoretical models will be presented.

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