^{123}Ce

In the 1984 article "Beta-Delayed Proton Emission Observed in New Lanthanide Isotopes" Nitschke et al. reported the first observation of ^{123}Ce (1984Ni03). It was produced in the fusion-evaporation reaction ^{92}Mo(^{36}Ar,αn) with a 196 MeV ^{36}Ar beam from the SuperHILAC at Lawrence Berkeley National Laboratory. Beta-delayed protons and characteristic X-rays were measured in coincidence at the on-line isotope separator OASIS. "The energies of the two-x-ray lines are in excellent agreement with the literature values for La K_α- and K_β-radiation, which uniquely identifies the new isotope as ^{123}Ce." The extracted half-life was 3.8(2) s.

Adapted from reference (2009Gi07)

1984Ni03 J. M. Nitschke, P. A. Wilmarth, P. K. Lemmertz, W. D. Zeitz, and J. A. Honkanen, Z. Phys. A **316**, 249 (1984).

2009Gi07 J. Q. Ginepro, J. Snyder, and M. Thoennessen, At. Data Nucl. Data Tables **95**, 805 (2009).

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