^{165}Pt

In 2019, Hilton et al. discovered ^{165}Pt in "α-spectroscopy studies of the new nuclides ^{165}Pt and ^{170}Hg" (2019Hi06). ^{78}Kr beams from the University of Jyväskylä K130 cyclotron irradiated ^{92}Mo (at 418 MeV) and ^{96}Ru (at 390 MeV) targets to produce ^{165}Pt and ^{170}Hg in 5n and 4n fusion evaporation reactions, respectively. The mass analyzing recoil apparatus (MARA) was used to separate the residues which were then implanted in a double-sided silicon strip detector. The isotopes were identified from correlations with the subsequent radioactive decays. "For ^{170}Hg an α-particle energy of E_α = 7590(30) keV and half-life of $t_{1/2} = 0.08^{+0.40}_{-0.04} ms$ were deduced, while for ^{165}Pt the corresponding values were 7272(14) keV and $0.26^{+0.26}_{-0.09} ms$."

Adapted from reference (2023Th03)

2019Hi06 J. Hilton, J. Uusitalo, J. Saren, R. D. Page *et al.*, Phys. Rev. C **100**, 014305 (2019).

2023Th03 M. Thoennessen, Int. J. Mod. Phys. E **32**, 2330001 (2023).

Please cite this abstract as: "FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152"