^{181}Pb

Toth et al. identified ^{181}Pb in the 1989 article "Identification of ^{181}Pb in ^{40}Ca irradiations of ^{144}Sm" (1989To01). Enriched ^{144}Sm targets were bombarded with 265 and 275 MeV ^{40}Ca beams from the Berkeley 88-inch cyclotron producing ^{181}Pb in the (3n) fusion-evaporation reaction. Reaction products ejected from the target were thermalized in helium gas and transported to a counting station on NaCl aerosols where α particles were measured with a Si(Au) surface barrier detector. "Thus, with the observation of the 7044-keV α peak, which fits into the decay systematics for lead nuclei, we conclude that it is probably only the most intense of several ^{181}Pb α transitions." A previously reported α energy of 7211(10) keV was incorrect (1986Ke03).

Adapted from reference (2013Fr04)

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