^{117}Pd

^{117}Pd was identified by Weiss et al. in 1968, as reported in "Identification and yield of 5.0-sec ^{117}Pd in the thermal-neutron fission of ^{235}U" (1968We11). A uranium solution enriched in ^{235}U was irradiated with neutrons from the Vallecitos Nuclear Test Reactor. Decay curves of the resulting activities were measured with a gas-flow proportional counter following chemical separation of the fission fragments. "The counting rate of ^{117}Cd for twelve palladium separations made at various times after irradiation appears in [the figure]. A linear relationship between the logarithm of the counting rate and the time of separation is evident. From a least-squares analysis of these data, a half-life of $5.0^{+0.5}_{-0.7}$ sec for ^{117}Pd was computed."

Adapted from reference (2013Ka01)

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