^{249}Bk

The 1954 discovery of ^{249}Bk was reported in "Identification of californium isotopes 249, 250, 251, and 252 from pile-irradiated plutonium" by Diamond et al. from Argonne National Laboratory (1954Di11). Plutonium was irradiated with neutrons in the Idaho Materials Testing Reactor. Activities were measured following chemical separation. "The alpha half-life of Cf^{249} is calculated to be 550±150 years from the 5.81-Mev alpha-particle growth rate into a Bk^{249} sample of a measured disintegration rate." In a table the half-life of ^{249}Bk is listed as ∼1 y. Previously, Thompson et al. had tentatively assigned a β-activity to ^{249}Bk with a lower half-life limit of one week (1954Th01).

Adapted from reference (2013Fr02)

1954Di11 H. Diamond, L. B. Magnusson, J. F. Mech, C. M. Stevens *et al.*, Phys. Rev. **94**, 1083 (1954).

1954Th01 S. G. Thompson, A. Ghiorso, B. G. Harvey, and G. R. Choppin, Phys. Rev. **93**, 908 (1954).

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