^{245}Am

^{245}Am was discovered in 1955 simultaneously by Browne et al. from Los Alamos National Laboratory in "The decay chain $Pu^{245}-Am^{245}-Cm^{245}$" (1955Br02) and Fields et al. from Argonne National Laboratory in "Production of Pu^{245} and Am^{245} by neutron irradiation of Pu^{244} (1955Fi37). Browne et al. produced ^{245}Am by neutron irradiation of transthorium elements. Beta- and gamma-ray spectra were measured following chemical separation. "The 2.08-hour activity was observed to elute identically with the Am^{241}, which established its atomic number conclusively as 95... Accordingly, the first indication of the mass number of the new activity was obtained from the datum that more atoms of the parent were present than of the known Pu^{246}, leading to a tentative mass assignment of 245." Fields et al. irradiated ^{244}Pu with neutrons in the Argonne heavy water reactor. Absorption and decay curves were recorded and γ-ray spectra were measured with a sodium iodide crystal spectrometer. "The beta-decay half-lives of Pu^{245} and Am^{245} were found to be 10.1 ± 0.5 hours and 119 ± 1 minutes, respectively." Both articles were submitted on May 20, 1955 and the primary credit for the discovery is given to Browne et al. because it appeared first in the journal.

Adapted from reference (2013Fr02)

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