

## <sup>245</sup>Cm

In 1954, Stevens et al. identified <sup>245</sup>Cm in “Curium isotopes 246 and 247 from pile-irradiated plutonium” (1954St33). Plutonium samples were irradiated with neutrons in the Materials Testing Reactor. <sup>245</sup>Cm was identified with the Argonne 12-in. 60° mass spectrometer following chemical separation. “Sample I contained 0.24 percent Cm<sup>246</sup>, whereas sample II contained 1.27 percent Cm<sup>246</sup> and 0.016 percent Cm<sup>247</sup>. Both curium samples also contained Cm<sup>245</sup>, whose decay characteristics were recently identified.” The previous identification of <sup>245</sup>Cm mentioned in the quote referred to unpublished results by Hulet et al. which were submitted less than five months later (1954Hu58). Both papers mentioned that <sup>245</sup>Cm was first identified by Reynolds mass-spectrometrically, however this work was unpublished.

Adapted from reference (2013Fr02)

- 1954Hu58 E. K. Hulet, S. G. Thompson, and A. Ghiorso, Phys. Rev. **95**, 1703 (1954).  
1954St33 C. M. Stevens, M. H. Studier, P. R. Fields, J. F. Mech *et al.*, Phys. Rev. **94**, 974 (1954).  
2013Fr02 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 96 (2013).

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