^{136}I

In 1949, Stanley and Katcoff identified ^{136}I in the paper "The properties of 86-second I$^{(136)}$" (1949St27). Uranium and plutonium were irradiated in the Los Alamos homogeneous pile. The resulting activities were measured with a bell-type Geiger counter with a mica window following chemical separation. "From similar considerations of fission yield, 86-sec. I is probably not isomeric with these either. Mass numbers 133 and 134 are also improbable for another reason: 60-min Te^{133} and 43-min. Te^{184} cannot decay to 86-sec. I with a fission yield greater than 0.05 percent as shown in [the table]. The possibility that 86-sec. I decays to a long-lived isomeric state of 3.4-min. Xe^{137} or of 17-min. Xe^{138} has not been ruled out. Nevertheless the most probable assignment of 86-sec. I is to mass 136." Strassmann and Hahn had reported a 1.8(4) min half-life without a mass assignment (1940St03).

Adapted from reference (2013Ka01)

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