^{200}Tl

^{200}Tl was discovered in 1949 by Orth et al. as reported in "Radioactive thallium isotopes produced from gold" (1949Or01). The Berkeley 60-inch cyclotron was used to irradiate gold targets with 20 MeV ^{4}He beams to form ^{200}Tl in (α,n). Decay curves were recorded following chemical separation. "The maximum yields of 1.8-hour, 7-hour, and 27-hour thallium were obtained at 38 Mev, 28 Mev, and 20 Mev, respectively. The thresholds were in the same decreasing order but were not well defined by these experiments. These data suggest (α,3n), (α,2n), and (α,n) reactions leading to Tl^{198}, Tl^{199}, and Tl^{200}, respectively." Previously reported half-lives of 10.5 h and 44 h assigned to ^{200}Tl and/or ^{201}Tl (1940Kr08) were incorrect.

Adapted from reference (2013Fr04)

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