

^{263}Sg

Ghiorso et al. discovered ^{263}Sg in 1974 as described in the paper “Element 106” (1974Gh04). A 95 MeV ^{18}O beam from the Berkeley SuperHILAC bombarded a ^{249}Cf target and ^{263}Sg was formed in the (4n) fusion-evaporation reaction. Recoil products were swept to a series of detection stations with a helium flow containing NaCl aerosol. Alpha-particles and spontaneous fission fragments were measured with Si(Au) surface barrier detectors. “The new nuclide $^{263}106$, produced by the ($^{18}\text{O},4n$) reaction, is shown to decay by α emission with a half-life of 0.9 ± 0.2 sec and a principal α energy of 9.06 ± 0.04 MeV to the known nuclide ^{259}Rf , which in turn is shown to decay to the known nuclide ^{255}No .” The experimental results were confirmed for the first time twenty years later by Gregorich et al. (1994Gr08).

Adapted from reference (2013Th02)

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