^{269}Sg α decay (3.1 min) 2010El06,2015Ut02

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	31-Oct-2015

Parent: ^{269}Sg: E=0; $T_{1/2}$=3.1 min *+37−11*; Q(α)=8.63×10^3 *6*; %α decay≈100.0

^{269}Sg-$T_{1/2}$: Measured by 2015Ut02 from $\alpha\alpha$ correlation timing.

^{269}Sg-Q(α): Deduced from Eα=8.50 MeV *6* (2015Ut02). Other: Eα=8.57 MeV *10* (2010El06). 2012Wa38 give Q(α)=8700 *50*.

2010El06: First identification of ^{269}Sg nuclide in the α-decay chain of ^{285}114 nuclide produced in ^{242}Pu(^{48}Ca,5n) at E=256 MeV from LBNL cyclotron facility. Evaporation residues were separated by BGS based on magnetic rigidities. Signals from multiwire proportional counters (MWPC) and focal plane detector (FPD) were used to distinguish implantation events from radioactive decay events in the FPD. Z=114 events were identified by detecting time and position correlated events corresponding to their implantation and subsequent radioactive decay chain terminating in SF decay.

The data of 1999Ni03 reporting α-decay chain of ^{293}118 leading to the final nuclide ^{265}Rf, and cited in earlier Nuclear Data Sheets evaluation of 2000Fi12 have since been retracted (2002Ni10), and have not been confirmed in a repeated experiment at LBNL (2003Gr26).

^{265}Rf Levels

E(level)	$T_{1/2}$	Comments
0	1.0 min *+12−3*	$T_{1/2}$: measured by 2015Ut02 from $\alpha\alpha$-correlated timing.

α radiations

Eα	E(level)	Comments
8.50×10^3 *6*	0	Eα: from 2015Ut02. Other: 8.57 MeV *10* (2010El06).