^{261}Sg α decay 2010St14,2007St12

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 114, 1041 (2013)	1-Mar-2012

Parent: ^{261}Sg: E=0.0; J^π=(3/2$^+$); $T_{1/2}$=178 ms *14*; Q(α)=9714 *15*; %α decay=?

^{261}Sg-$T_{1/2}$: From 2010Be16. Other value: 184 ms *5* (2007St12,2010St14); 0.26 s *+11−6* (1985Mu11,1984Mu17); 0.11 s *+14−4* (1987Mu15).

Additional information 1.

2010St14, 2007St12: ^{261}Sg activity was produced in the ^{208}Pb(^{54}Cr,n) reaction at E=258 MeV. The evaporation residues were extracted from the beam by the velocity filter SHIP. Measured alpha particles from ^{261}Sg, ^{257}Rf, and ^{253}No decay using silicon detectors, and γ rays using an array of Ge clover detectors.

2010Be16: Experiments were performed at the 88-Inch Cyclotron of the Lawrence Berkeley National Laboratory using the Berkeley Gas-filled Separator (BGS). The ^{261}Sg activity was produced in the ^{208}Pb(^{54}Cr,n) reaction at E=261 MeV. Others: 2004He23, 1997Ho13, 1987Mu15, 1985Mu11, 1984Og03.

^{257}Rf Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	(1/2$^+$)	4.4 s *+6−5*	$T_{1/2}$: From Adopted Levels. Possible configuration 1/2$^+$[620].
50 *1*	[5/2$^+$]		
157 *1*	(3/2$^+$)		Possible configuration 3/2$^+$[622].

α radiations

Eα	E(level)	Comments
9410 *10*	157	Eα: From 2010St14.

γ(^{257}Rf)

E$_\gamma$	E$_i$(level)	J^π_i	E$_f$	J^π_f	Mult.	Comments
107.3	157	(3/2$^+$)	50	[5/2$^+$]	[M1]	E$_\gamma$: From 2010St14.
157 *1*	157	(3/2$^+$)	0.0	(1/2$^+$)		E$_\gamma$: From 2010St14.

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Decay Scheme