^{253}Lr α decay (1.42 s) 2008Ga25,2001He35,1999He11

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Khalifeh Abusaleem	NDS 112, 2129 (2011)	31-Dec-2010

Parent: ^{253}Lr: E=0.0+x; $T_{1/2}$=1.42 s *11*; Q(α)=8937 *9*; %α decay=9×10[1] *1*

^{253}Lr-Q(α): from 2009AuZZ and 2003Au03; 2011AuZZ list 8918 *20*.

^{253}Lr-%α decay: >0.8 (1985He22); from Iα(^{253}Lr)/Iα(^{257}Db) (1985He22,1986He28). The measurement is based on the number of α's from both isomers in ^{253}Lr and ^{253}Db.

Others: 2009He20: experimental details in 2004He28 and 2006He27. Measured: Eα, Iα and half life, deduced: level energy and J^{π}.

2005He27: predicts the isomeric state is small compared to the g.s..

α-α correlation from evaporation residues implanted in position-sensitive surface barrier detectors, FWHM=30 keV. Daughter of ^{257}Db and parent of ^{249}Md (1985He22).

^{249}Md Levels

E(level)	Comments
0.0+x	E(level): if the 1.42 s isomer is the g.s. of ^{253}Lr, then x=77 *9* from Q(α)=8937 *9* (2009AuZZ) and measured Eα.

α radiations

Eα	E(level)	Iα[‡]	HF[†]	Comments
8719 *15*	0.0+x	≤100	1.2 *3*	Eα: from 2009He20; others: 8723 *10* (1999He11); 8740 (1992An16), 8722 *20* (1985He22). HF: if branching=0.9 *1* and Iα=100.

[†] $r_0(^{249}Md)$=1.470 *20*.

[‡] For absolute intensity per 100 decays, multiply by 0.9 *1*.