^{258}Db α decay (1.9 s) 2009He20

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 156, 1 (2019)	31-Jan-2019

Parent: ^{258}Db: E=0+x; $J^{\pi}=(1^-)$; $T_{1/2}$=1.9 s *5*; Q(α)=9500 *50*; %α decay=64 *10*

^{258}Db-J^{π},$T_{1/2}$: From ^{258}Db Adopted Levels in the ENSDF database (August 2017 update).

^{258}Db-Q(α): From 2017Wa10.

^{258}Db-%α decay: %α=64 *10* (from ^{258}Db Adopted Levels in the ENSDF database (August 2017 update)).

2009He20, 2016He15: ^{258}Db produced in ^{209}Bi(^{50}Ti,n),E=236 MeV, ^{50}Ti beam from the ECR source of the UNILAC at GSI. The Evaporation residues (ERs) were separated by the velocity filter SHIP and implanted into a position-sensitive 16-strip Si PIPS detector for detecting ERs, conversion electrons, and subsequent α-decays or spontaneous fission (SF) events. Escaped products into the backward hemisphere were detected by a box of six Si wafers. The x rays were detected by a Ge clover detector consisting of four crystals. Measured correlations between ERs, x rays, ce, α-decay and SF events. Deduced isomeric states and half-lives.

^{254}Lr Levels

E(level)
0+x

α radiations

Eα	E(level)	Comments
9196 *10*	0+x	Eα: from 2009He20. Other: 9172 *15* (1985He22). The 9172α was resolved in two components, first in 1999He11, then in more detail in 2009He20, where 9166α was assigned to the decay of 4.3-s activity, and 9196α to the decay of 1.9-s activity of ^{258}Db.