

$^{257}\text{Lr}$   $\alpha$  decay [1971Es01,1976BeYM](#)

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

Parent:  $^{257}\text{Lr}$ : E=0;  $T_{1/2} \approx 4$  s;  $Q(\alpha) = 9010$  30; % $\alpha$  decay=100.0

$^{257}\text{Lr}$ - $T_{1/2}$ : From [2009Qi04](#), [1997He29](#).

$^{257}\text{Lr}$ - $Q(\alpha)$ : From [2012Wa38](#),  $\Delta Q(\alpha) = 30$  syst.

[Additional information 1](#).

[2004Ga29](#): Measured  $E\alpha$ . The results are in general agreement with earlier measurements.

[1971Es01](#):  $^{257}\text{Lr}$  produced by heavy ion ( $^{11}\text{B}$ ,  $^{12}\text{C}$ ,  $^{13}\text{C}$ ,  $^{14}\text{N}$ ,  $^{15}\text{N}$ ,  $^{16}\text{O}$ ) bombardment on  $^{246}\text{Cm}$ ,  $^{249}\text{Bk}$ ,  $^{249}\text{Cf}$  and  $^{250}\text{Cf}$ .

Measured  $E\alpha$ ,  $I\alpha$ .

[1976BeYM](#), [1976BeZY](#): produced by  $^{249}\text{Cf}(^{15}\text{N}, \alpha 3n)$ . Measured  $E\alpha$ ,  $I\alpha$ .

 $^{253}\text{Md}$  Levels

E(level)	Comments
0	
60 30	E(level): Deduced from $(E\alpha_0 - E\alpha_1) \times 257/253 = 60$ 30.

 $\alpha$  radiations

$Q(\alpha)(^{257}\text{Lr}) = 9010$  syst with estimated  $\Delta Q(\alpha) = 30$  ([2012Wa38](#)).

$E\alpha^\dagger$	E(level)	$I\alpha^\ddagger@$	HF#
8810 20	60	18 2	$\approx 19$
8870 20	0	82 2	$\approx 7$

$^\dagger$  From [1971Es01](#).

$^\ddagger$  Weighted average of measurements by [1976BeYM](#) and [1971Es01](#).

#  $r_0(^{253}\text{Md}) = 1.466$  7.

@ Absolute intensity per 100 decays.