^{248}Es α decay   1989Ha27

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 146, 387 (2017)	31-Aug-2017

Parent: ^{248}Es: E=0.0; J$^{\pi}$=(2$^-$,0$^+$); T$_{1/2}$=24 min *3*; Q(α)=7160 *SY*; %α decay≈0.25

^{248}Es-Q(α): From systematics in 2017Wa10 with ΔQ(α)= 50.

^{248}Es-J$^{\pi}$,T$_{1/2}$: From Adopted Levels of ^{248}Es (2014Ma86).

^{248}Es-%α decay: From Adopted Levels of ^{248}Es (2014Ma86).

1989Ha27: ^{248}Es produced by ^{249}Cf(p,2n) at the 88 inch cyclotron at Lawrence Berkeley Laboratory and the Tandem Van de Graaff accelerator at the Japan Atomic Research Institute with Ep=18-33 MeV. α particles from the decay of the reaction products were measured with Si(Au) surface barrier detectors.

1970Ah01: ^{248}Es produced by ^{249}Bk(^{3}He,4n) reaction at the Argonne 152.4 cm cyclotron. The isotope was characterized using the recoil technique. The energy of the ^{248}Es α group was measured with a Au-Si surface barrier detector.

1956Ch67: ^{248}Es identified via ^{249}Cf(d,3n) reaction at the 60 inch cyclotron at Crocker Laboratory with E(d)=18-22 MeV. The branching ratio of electron capture to alpha decay was ≈ 400 from observed decays in ^{248}Es and ^{248}Cf.

^{244}Bk Levels

E(level)†	Comments
140 *SY*	E(level): Δ(E)=50 (sys).
170 *SY*	E(level): Δ(E)=50 (sys).
200 *SY*	E(level): Δ(E)=50 (sys).

† Level energies are calculated from Qα(^{248}Es)=7160 *syst* (2017Wa10) and measured Eα's.

α radiations

E$\alpha^{\dagger}$	E(level)	I$\alpha^{\ddagger@}$	HF$^{\#}$	Comments
6848 *14*	200	9 *8*	≈34	
6879 *5*	170	63 *14*	≈6.6	Eα: Others: 6.87 MeV *1* (1970Ah01), 6.87 MeV *2* (1956Ch77).
6907 *5*	140	28 *12*	≈20	

† From 1989Ha27.

‡ Alpha intensity per 100 alpha decays, measured by 1989Ha27.

$^{\#}$ r$_0$(^{244}Bk)=1.4871 *76* from unweighted average of r$_0$'s of neighboring even-even nuclei listed in 1998Ak04.

$^{@}$ For absolute intensity per 100 decays, multiply by ≈0.0025.