

^{248}Cm SF decay [1991Ho16](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	D. De Frenne	NDS 110, 2081 (2009)	1-Mar-2009

Parent: ^{248}Cm : $E=0.0$; $J^\pi=0^+$; $T_{1/2}=3.48\times 10^5$ y 6; %SF decay=8.39 16

^{248}Cm chemically purified.

The ^{248}Cm source was placed at the normal target position of the Argonne-Notre Dame BGO γ -ray facility. 10 BGO-suppressed Ge detectors, 2 LEPS, an array 50 BGO detectors. 500 million coin events recorded.

The authors use the fission properties of the fragments (complementary) and the coin with previously established transitions to identify the nuclides.

 ^{103}Zr Levels

E(level)	J^π [†]
0.0	(5/2 ⁻)
109.4	(7/2 ⁻)
256.0	(9/2 ⁻)
428.0	(11/2 ⁻)
657.3	(13/2 ⁻)
882.2	(15/2 ⁻)

[†] From Adopted Levels.

 $\gamma(^{103}\text{Zr})$

E_γ [†]	I_γ	E_i (level)	J_i^π	E_f	J_f^π
109.4	100	109.4	(7/2 ⁻)	0.0	(5/2 ⁻)
146.6	60	256.0	(9/2 ⁻)	109.4	(7/2 ⁻)
172.0	24	428.0	(11/2 ⁻)	256.0	(9/2 ⁻)
224.9	10	882.2	(15/2 ⁻)	657.3	(13/2 ⁻)
229.3	19	657.3	(13/2 ⁻)	428.0	(11/2 ⁻)
256.0	12	256.0	(9/2 ⁻)	0.0	(5/2 ⁻)
318.6	22	428.0	(11/2 ⁻)	109.4	(7/2 ⁻)
401.3	20	657.3	(13/2 ⁻)	256.0	(9/2 ⁻)
454.2	17	882.2	(15/2 ⁻)	428.0	(11/2 ⁻)




[†] Not given by [1991Ho16](#), derived by evaluator from level energy differences.

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Level Scheme

Intensities: Relative I_γ

Legend

-  $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
-  $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
-  $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

