

^{248}Cm SF decay [1991Ho16](#),[2001Ur01](#),[2012Sm02](#)

| Type | Author | History | Citation | Literature Cutoff Date |
|-----------------|---------------------------|---------|-------------------|------------------------|
| Full Evaluation | Balraj Singh and Jun Chen | | NDS 172, 1 (2021) | 31-Jan-2021 |

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

[1991Ho16](#): measured E_γ , I_γ , $\gamma\gamma$ -coin with ten BGO suppressed Ge detectors and two LEPS. Deduced levels. First three excited states reported.

[2001Ur01](#): measured lifetime by Doppler-shift profile method and deduced intrinsic quadrupole moment of g.s. band, Eurogam2 array with 52 large Ge detectors, 24 Clovers and four LEPS.

[2012Sm02](#): measured E_γ , $\gamma\gamma$ -coin, Doppler-broadened lineshapes, level lifetimes using EUROGAM-2 array.

[1999SmZX](#): superseded by [2001Ur01](#).

 ^{100}Sr Levels

| E(level) [†] | J^π [‡] | $T_{1/2}$ | Comments |
|------------------------|----------------------|------------|---|
| 0.0 [#] | 0 ⁺ | | |
| 129.2 ^{# 5} | (2 ⁺) | | |
| 417.3 ^{# 7} | (4 ⁺) | | |
| 852.4 ^{# 9} | (6 ⁺) | | |
| 1418.7 ^{# 10} | (8 ⁺) | 2.13 ps 31 | $T_{1/2}$: from Doppler-broadened lineshape (2012Sm02), statistical uncertainty=0.24 ps, systematic uncertainty=0.21 ps. |
| 2108.7 ^{# 11} | (10 ⁺) | 0.80 ps 12 | $T_{1/2}$: from Doppler-broadened lineshape (2012Sm02), statistical uncertainty=0.10 ps, systematic uncertainty=0.08 ps. |

[†] From E_γ data, assuming 0.5 keV uncertainty for each E_γ .

[‡] Probable assignment to g.s. yrast band.

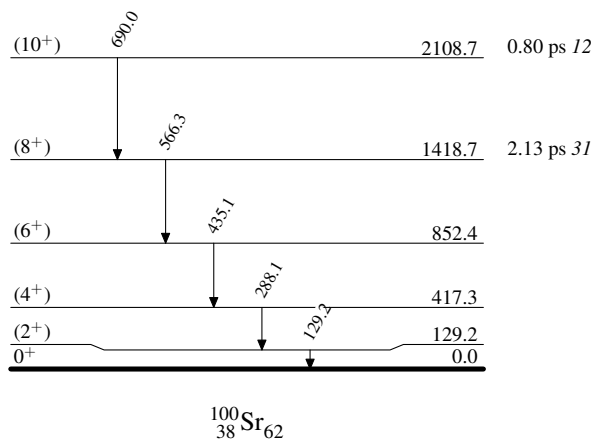
[#] Band(A): g.s. band. $Q_0=3.70$ 25 ([2001Ur01](#)) from Doppler-shift attenuations for 566 γ and 690 γ .

 $\gamma(^{100}\text{Sr})$

| E_γ | $E_i(\text{level})$ | J_i^π | E_f | J_f^π |
|--------------------|---------------------|--------------------|--------|-------------------|
| 129.2 [‡] | 129.2 | (2 ⁺) | 0.0 | 0 ⁺ |
| 288.1 [‡] | 417.3 | (4 ⁺) | 129.2 | (2 ⁺) |
| 435.1 [‡] | 852.4 | (6 ⁺) | 417.3 | (4 ⁺) |
| 566.3 [†] | 1418.7 | (8 ⁺) | 852.4 | (6 ⁺) |
| 690.0 [†] | 2108.7 | (10 ⁺) | 1418.7 | (8 ⁺) |

[†] From [2001Ur01](#).

[‡] From [1991Ho16](#).

 ^{248}Cm SF decay $^{1991}\text{Ho16},^{2001}\text{Ur01},^{2012}\text{Sm02}$ Level Scheme

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