^{248}Cm SF decay 2001Bh06

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	28-Feb-2018

Parent: ^{248}Cm: E=0.0; $J^\pi=0^+$; $T_{1/2}=3.48\times10^5$ y *6*; %SF decay=8.39 *16*
^{248}Cm-%SF decay: %SF=8.39 *16* for decay of ^{248}Cm.
2001Bh06: Measured Eγ and γγ using GAMMASPHERE array.

^{132}Sb Levels

E(level)†	Jπ‡	Comments
0+x@	(8⁻)	E(level): x=150-250 keV (1989St06).
1025.0+x@ *8*	(9⁻)	
2799.0+x& *8*	(10⁺)	
3199.7+x& *11*	(11⁺)	
3489.1+x# *11*	(10⁻)	
4126.3+x*a* *11*	(11⁺)	
4266.2+x*a* *12*	(12⁺)	
4446.2+x*b* *12*	(12⁻)	
4544.7+x*a* *13*	(13⁺)	
4601.2+x*b* *16*	(13⁻)	
4892.2+x*b* *19*	(14⁻)	
5109.2+x*b* *21*	(15⁻)	

† From least-squares fit to Eγ′s, assuming Δ(Eγ)=1 keV for each γ ray.
‡ As proposed by 2001Bh06.
# Reverse ordering of 957-2464 is possible from intensity considerations (2001Bh06) with an intermediate level at 1982+x instead of that at 3489+x, however, based on model considerations and decay characteristics discussed by 2001Bh06, the latter is preferred.
@ Member of $\pi g_{7/2}\otimes\nu(h^{-1}_{11/2})$ configuration.
& Member of $\pi h_{11/2}\otimes\nu(h^{-1}_{11/2})$ configuration.
a Member of $\pi g_{7/2}\otimes\nu(f_{7/2}h^{-1}_{11/2}d^{-1}_{3/2})$ configuration.
b Member of $\pi g_{7/2}\otimes\nu(f_{7/2}h^{-2}_{11/2})$ configuration.

γ(^{132}Sb)

Eγ	Iγ†	Ei(level)	J^π_i	E_f	J^π_f	Eγ	Iγ†	Ei(level)	J^π_i	E_f	J^π_f
99	11	4544.7+x	(13⁺)	4446.2+x	(12⁻)	957‡	18	4446.2+x	(12⁻)	3489.1+x	(10⁻)
140	14	4266.2+x	(12⁺)	4126.3+x	(11⁺)	1025	100	1025.0+x	(9⁻)	0+x	(8⁻)
155	14	4601.2+x	(13⁻)	4446.2+x	(12⁻)	1066	7	4266.2+x	(12⁺)	3199.7+x	(11⁺)
217	7	5109.2+x	(15⁻)	4892.2+x	(14⁻)	1247	25	4446.2+x	(12⁻)	3199.7+x	(11⁺)
278	6	4544.7+x	(13⁺)	4266.2+x	(12⁺)	1327	4	4126.3+x	(11⁺)	2799.0+x	(10⁺)
291	7	4892.2+x	(14⁻)	4601.2+x	(13⁻)	1774	60	2799.0+x	(10⁺)	1025.0+x	(9⁻)
401	50	3199.7+x	(11⁺)	2799.0+x	(10⁺)	2464‡	21	3489.1+x	(10⁻)	1025.0+x	(9⁻)
927	14	4126.3+x	(11⁺)	3199.7+x	(11⁺)	2799	25	2799.0+x	(10⁺)	0+x	(8⁻)

† Intensities are estimated (by evaluators) from thickness of arrows in figure 3 of 2001Bh06.
‡ Reverse ordering of 957-2464 is possible, however, the ordering shown here is preferred. See also comment for 3489+x level.

^{248}Cm SF decay 2001Bh06

Level Scheme

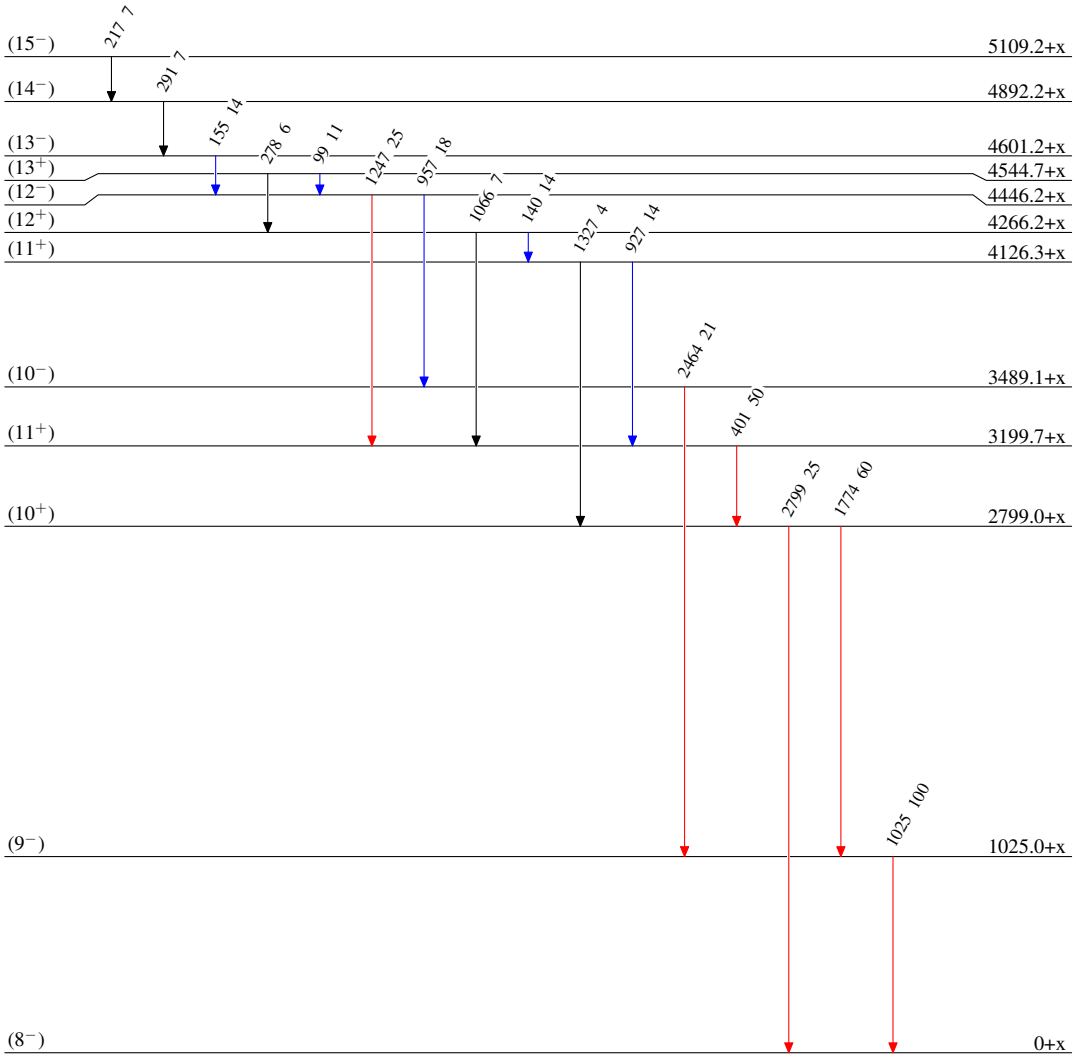
Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



$^{132}_{51}Sb_{81}$