Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. Lalkovski, J. Timar and Z. Elekes	NDS 161, 1 (2019)	1-Apr-2019

Q(β^-)=−11.2×10^3 *3*; S(n)=−1291×10^1 *12*; S(p)=323 *23*; Q(α)=2173 *SY* 2017Wa10

^{105}Sb Levels

Cross Reference (XREF) Flags

A ^{109}I α decay (92.8 μs)
B ^{50}Cr(^{58}Ni,p2nγ)

E(level)†	J$^\pi$	T$_{1/2}$	XREF	Comments
0‡	(5/2$^+$)	1.22 s *11*	AB	%ε+%β^+=100; %p=? %p: E(p)=478 *15* keV and %p ≈1 in 1994Ti03, but not confirmed by 1997Sh13. J$^\pi$: from systematics. T$_{1/2}$: Weighted average of 1.12 s *16* 1996FaZZ and 1.30 s *15* from 1995Sc28, 1995Sc33. configuration: $\pi d^{+1}_{5/2}$.
1219.41‡ *20*	(9/2$^+$)		B	J$^\pi$: 1219.4γ (E2) to (5/2$^+$).
1840.7‡ *3*	(13/2$^+$)		B	J$^\pi$: 621.3γ (E2) to (9/2$^+$).
2211.1‡ *4*	(15/2$^+$)		B	J$^\pi$: 370.4γ (M1) to (13/2$^+$). configuration: $\pi d^{+1}_{5/2}\nu(d^{+3}_{5/2}\nu g^{+1}_{7/2})$.
2498.1‡ *4*	(17/2$^+$)		B	J$^\pi$: 287.0γ (M1) to (15/2$^+$). configuration: $\pi d^{+1}_{5/2}\nu(d^{+3}_{5/2}\nu g^{+1}_{7/2})$.
2993.3‡ *5*	(19/2$^+$)		B	J$^\pi$: 495.2γ (M1) to (17/2$^+$). configuration: $\pi d^{+1}_{5/2}\nu(d^{+1}_{5/2}g^{+1}_{7/2})$ and one neutron pair coupled to J=0.
3728.4‡ *6*	(23/2$^+$)		B	J$^\pi$: 735.1γ (E2) to (19/2$^+$).
3973.8‡ *7*	(25/2$^+$,27/2$^+$)		B	J$^\pi$: 245.4γ to (23/2$^+$).

† From a least-squares fit to Eγ.
‡ Seq.(A): Level sequence.

γ(^{105}Sb)

E$_i$(level)	J$_i^\pi$	E$_\gamma$†	I$_\gamma$	E$_f$	J$_f^\pi$	Mult.	Comments
1219.41	(9/2$^+$)	1219.4 *2*	100	0	(5/2$^+$)	(E2)	Mult.: R$_{DCO}$=1.3 *1* from ^{50}Cr(^{58}Ni,p2nγ) in 2002Li33.
1840.7	(13/2$^+$)	621.3 *2*	100	1219.41	(9/2$^+$)	(E2)	Mult.: R$_{DCO}$=1.2 *2* from ^{50}Cr(^{58}Ni,p2nγ) in 2002Li33.
2211.1	(15/2$^+$)	370.4 *2*	100	1840.7	(13/2$^+$)	(M1)	Mult.: R$_{DCO}$=0.6 *1* from ^{50}Cr(^{58}Ni,p2nγ) in 2002Li33.
2498.1	(17/2$^+$)	287.0 *2*	100	2211.1	(15/2$^+$)	(M1)	Mult.: R$_{DCO}$=0.9 *1* from ^{50}Cr(^{58}Ni,p2nγ) in 2002Li33.
2993.3	(19/2$^+$)	495.2 *3*	100	2498.1	(17/2$^+$)	(M1)	Mult.: R$_{DCO}$=0.6 *1* from ^{50}Cr(^{58}Ni,p2nγ) in 2002Li33.
3728.4	(23/2$^+$)	735.1 *2*	100	2993.3	(19/2$^+$)	(E2)	Mult.: R$_{DCO}$=1.3 *2* from ^{50}Cr(^{58}Ni,p2nγ) in 2002Li33.
3973.8	(25/2$^+$,27/2$^+$)	245.4 *4*	100	3728.4	(23/2$^+$)		

† From ^{50}Cr(^{58}Ni,p2nγ) (2002Li33).

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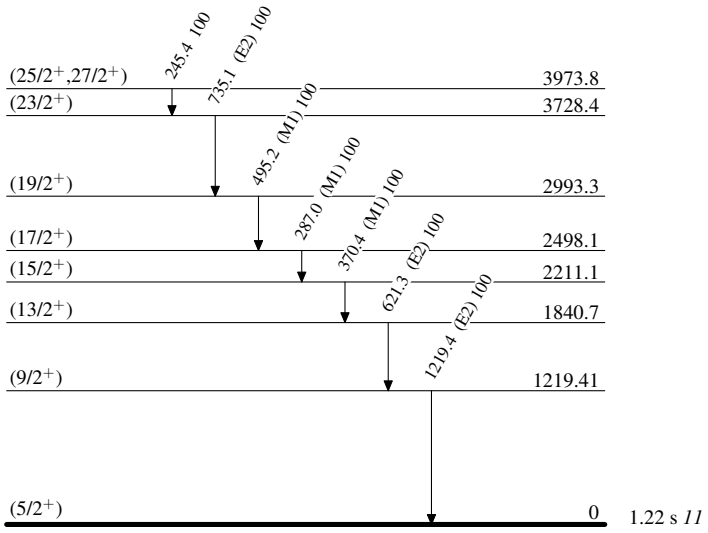
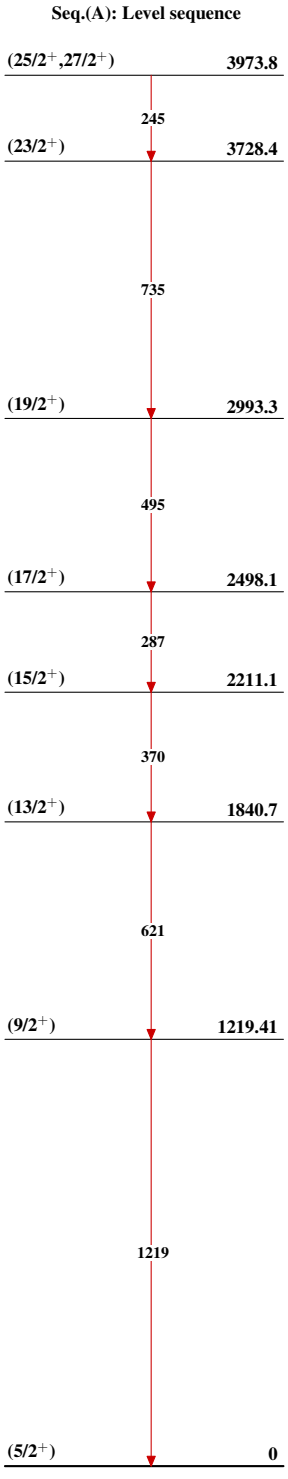
Level Scheme

Intensities: Relative photon branching from each level



$^{105}_{51}Sb_{54}$

Adopted Levels, Gammas



$^{105}_{51}Sb_{54}$