

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 108,2035 (2007)	30-Mar-2007

$Q(\beta^-) = -1.246 \times 10^4$ 13; $S(n) = 1.273 \times 10^4$ 7; $S(p) = 4287$ 11; $Q(\alpha) = 143$ 6 [2012Wa38](#)

Note: Current evaluation has used the following Q record -12400 SY12700 SY4281.14 11230 140 [2003Au03](#).

 ^{104}Sn LevelsCross Reference (XREF) Flags

- A** (HI,xn γ)
B $^{58}\text{Ni}(^{50}\text{Cr},2p2n\gamma)$
C ^{108}Te α decay

E(level)	J^π [†]	$T_{1/2}$ [‡]	XREF	Comments
0.0	0 ⁺	20.8 s 5	ABC	$\% \varepsilon + \% \beta^+ = 100$ $T_{1/2}$: from 1989SzZY . Others: 21 s 1 (1985Ra19), 23 s 2 (1985De08).
1260.1 3	2 ⁺		AB	
1942.7 5	4 ⁺		AB	
2257.2 6	(6 ⁺)	1.5 ns 5	AB	
3440.2 6	8 ⁺	<14 ps	AB	
3980.2 7	10 ⁺	104 ps 14	AB	
4721.7? 5	(9 ⁻)	<5.5 ps	B	
5838.9 4	(11 ⁻)		B	
6033.4 4	(11 ⁻)		B	
6084.5 5	(11 ⁻)	0.7 ps 3	B	$T_{1/2}$: From DSA.
6431.5 9	(13 ⁻)	44 ps 7	AB	
6469.5 4	(13 ⁻)	36 ps 8	B	
6581.0 6	(12 ⁻)	≤ 1 ps	B	$T_{1/2}$: From DSA.
6854.0 4	(14 ⁻)		B	
7125.1 6	(13 ⁻)		B	
7997.6 5			B	
8443?			B	
8990?			B	
9587?			B	
9998?			B	

[†] From γ properties measured by DCO ratios in $^{58}\text{Ni}(^{50}\text{Cr},2p2n\gamma)$, see [1998Go12](#) for suggested shell-model configurations.

[‡] From RDM in $^{58}\text{Ni}(^{50}\text{Cr},2p2n\gamma)$, unless noted.

 $\gamma(^{104}\text{Sn})$

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult. [†]	Comments
1260.1	2 ⁺	1260.2 2	100	0.0	0 ⁺	E2	
1942.7	4 ⁺	682.8 1	100	1260.1	2 ⁺	E2	
2257.2	(6 ⁺)	314.2 1	100	1942.7	4 ⁺	E2	$B(E2)(W.u.) = 4.2$ 15
3440.2	8 ⁺	1183.1 1	100	2257.2	(6 ⁺)	E2	$B(E2)(W.u.) > 0.60$
3980.2	10 ⁺	540.2 1	100	3440.2	8 ⁺	E2	$B(E2)(W.u.) = 4.1$ 6
4721.7?	(9 ⁻)	1281.1 5	100	3440.2	8 ⁺		
5838.9	(11 ⁻)	1117.0 5	11 2	4721.7? (9 ⁻)			
		1858.5 3	26 3	3980.2	10 ⁺	E1	
6033.4	(11 ⁻)	2053.2 4	100	3980.2	10 ⁺	E1	

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Adopted Levels, Gammas (continued) $\gamma(^{104}\text{Sn})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult. [†]	Comments
6084.5	(11 ⁻)	2104.0 4	100	3980.2	10 ⁺	E1	B(E1)(W.u.)= 4.7×10^{-5} 21
6431.5	(13 ⁻)	594.0 1	100	5838.9	(11 ⁻)	Q	
		2451.8 5	6 2	3980.2	10 ⁺	E3	B(E3)(W.u.)=4.6 17
6469.5	(13 ⁻)	436.1 2	100 18	6033.4	(11 ⁻)	Q	
		2488.7 5	46 10	3980.2	10 ⁺	E3	B(E3)(W.u.)=28 10
6581.0	(12 ⁻)	496.5 2	100	6084.5	(11 ⁻)	M1	B(M1)(W.u.)>0.18
6854.0	(14 ⁻)	384.6 2	25 3	6469.5	(13 ⁻)	D	
		421.1 2	100 4	6431.5	(13 ⁻)	D	
7125.1	(13 ⁻)	544.1 3	100	6581.0	(12 ⁻)	D	
7997.6		1143.5 4	13 2	6854.0	(14 ⁻)		
		1564.8 5	100	6431.5	(13 ⁻)		
8443?		445.9 2	100	7997.6			
8990?		547.1 3	100	8443?			
9587?		597.2 3	100	8990?			
9998?		411.7 3	100	9587?			

[†] From DCO ratios and RUL in $^{58}\text{Ni}(^{50}\text{Cr}, 2\text{p}2\text{n}\gamma)$.

Adopted Levels, GammasLevel Scheme

Intensities: Relative photon branching from each level

