

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. Lalkovski, F. G. Kondev		NDS 124, 157 (2015)	1-Aug-2014

$Q(\beta^-) = -7057$ 18; $S(n) = 10788$ 5; $S(p) = 7554$ 4; $Q(\alpha) = -1828.3$ 12 [2012Wa38](#)

 ^{112}Sn LevelsCross Reference (XREF) Flags

A	^{112}In β^- decay	G	$^{103}\text{Rh}(^{12}\text{C}, p2n\gamma)$	M	$^{112}\text{Sn}(p, p')$
B	^{112}Sb ε decay	H	$^{100}\text{Mo}(^{16}\text{O}, 4n\gamma), ^{98}\text{Mo}(^{16}\text{O}, 2n\gamma)$	N	$^{114}\text{Sn}(p, t)$
C	Coulomb excitation	I	$^{100}\text{Mo}(^{20}\text{Ne}, \alpha 4n\gamma)$	O	$^{110}\text{Cd}(^3\text{He}, n)$
D	$^{112}\text{Sn}(\gamma, \gamma')$	J	$^{110}\text{Cd}(^3\text{He}, n\gamma), ^{112}\text{Cd}(^3\text{He}, 3n\gamma)$	P	$^{112}\text{Sn}(d, d')$
E	$^{112}\text{Sn}(n, n'\gamma)$	K	$^{113}\text{In}(p, 2n\gamma)$	Q	$^{112}\text{Sn}(\alpha, \alpha')$
F	$^{110}\text{Cd}(\alpha, 2n\gamma)$	L	$^{112}\text{Sn}(p, p'\gamma)$		

E(level) [†]	J ^π	T _{1/2} [‡]	XREF	Comments
0.0 [#]	0 ⁺	stable	A B C D E F G H I J K L M N O P Q	
1256.69 [#] 4	2 ⁺	0.376 ps 5	B C D E F G H I J K L M N P Q	XREF: K(1258)P(1250)Q(1260). J^π: $L(p, t)=2$; 1256.68γ E2 to 0⁺. $T_{1/2}$: from B(E2)$\uparrow$ in Coulomb excitation. Others: 0.451 ps 28 from DSAM in 2011Ju01 and 0.37 ps +7–6 in from DSAM in 2007Or04 (note that the value was initially reported as 0.52 ps +9–6, but it was retracted by the authors). $B(E2)\uparrow$: 0.240 3, weighted average of 0.242 8 (2011Ku05, 2010Ku07), 0.240 20 (2007Va22), 0.229 5 (1975Gr30), and 0.256 6 (1970St20). Other: 0.240 14 (1987Ra01), weighted average of the data in 1975Gr30 and 1970St20. $\beta_2=0.143$ 5 (for $r_0=1.26$ fm) (1980Bl07). Other: 0.152 10 (1968Ma34). μ: +0.21 7 from g-factor=+0.104 35 in 2011Wa15. Other: +0.7 3 in 1980Ha19. Q: -0.09 10 in 1975Gr30. J^π: $L(p, p')=2$; 2150.9γ E2 to 0⁺ and 894.17γ M1+E2 to 2⁺. $T_{1/2}$: from B(E2)$\uparrow=0.00065$ 20 in Coulomb excitation (1981Jo03). XREF: H(2186.9)N(2192)Q(2200). J^π: $L(p, t)=0, L(^3\text{He}, n)=0$; 2190.9 E0 transition to 0⁺, 934.12γ E2 to 2⁺. $T_{1/2}$: From B(E2)$\uparrow\leq 0.029$. XREF: K(2251.0)N(2248)P(2260). J^π: $L(p, t)=4$; $L(p, p')=4$; 990.69γ E2 to 2⁺. $T_{1/2}$: from B(E2)(2⁺ to 4⁺)=0.032 5 in Coulomb excitation (1981Jo03). μ: +1.5 7 from g-factor=+0.38 18 in 2011Wa15. XREF: B(2355.0)N(2355)P(2360)Q(2350). J^π: $L(p, p')=3$; $L(p, t)=3$; $L(\alpha, \alpha')=3$; 1097.38γ E1 to 2⁺. $T_{1/2}$: From DSAM in 2011Ju01; Other: 0.35 +14–8 ps from DSAM in $^{112}\text{Sn}(n, n'\gamma)$ (2005Ku28). $\beta_3=0.146$ 5 (for $r_0=1.26$ fm) (1980Bl01). Other: 0.203 15 (1968Ma34). $B(E3)=0.087$ 12 (1981Jo03) in Coulomb excitation (1981Jo03) and 0.050 10 in $^{112}\text{Sn}(\alpha, \alpha')$ (1970Br07). μ: -1.4 28 from g-factor=-0.48 92 in 2011Wa15. XREF: H(2474.8)M(2475)Q(2500). J^π: $L(p, t)=2$; 2475.8γ E2 to 0⁺. XREF: I(2520.12)P(2530). J^π: $L(p, t)=4$; 1264.07γ E2 to 2⁺.
2150.87 5	2 ⁺	1.4 ps 4	B C E LMN	
2190.81 6	0 ⁺	≥ 2.7 ps	C E H LMNO Q	
2247.39 [#] 6	4 ⁺	3.3 ps 5	B C EF HIJ KLMN P	
2354.21 6	3 ⁻	0.215 ps 14	B C EF H LMN PQ	
2476.16 11	2 ⁺	>2.4 ps	B C E H MN Q	
2520.70 7	4 ⁺	0.42 ps 14	B C EFGHI MN P	

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Adopted Levels, Gammas (continued) ^{112}Sn Levels (continued)

E(level) [†]	J ^π	T _{1/2} [‡]	XREF		Comments
2549.22 14	6 ⁺	13.73 ns 8	EF	HIJK MN	T _{1/2} : from DSAM in $^{103}\text{Rh}(^{12}\text{C},\text{p}2\text{n}\gamma)$ (1990ViZW). Other: >0.8 ps in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28). XREF: K(2553.0)M(2550). J ^π : L(p,t)=6; 301.84γ E2 to 4 ⁺ . T _{1/2} : weighted average of 13.9 ns 2 (1980Va13), 14.0 ns 4 (1969Ya05), 13.2 ns 4 (1981Go17) and 13.7 ns 1 (1981Va15) in $^{110}\text{Cd}(\alpha,2\text{n}\gamma)$ and 12.1 ns 15 (1989An14, 1988Pe17) and 13.6 ns 4 (1989An14) in $^{110}\text{Cd}(^3\text{He},\text{n}\gamma)$, $^{112}\text{Cd}(^3\text{He},3\text{n}\gamma)$. Other >0.5 ps from DSAM in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28). μ: +0.53 3 (1983Le18), +0.61 5 (1981Go17), and +0.2 2 (1981Va15). Q: 0.29 6 (1975Vi03). configuration: most likely a mixture between ($\nu\text{g}_{7/2}^{-1},\text{v}\text{d}_{5/2}^{-1}$) and ($\nu\text{g}_{7/2}$) ⁻² . J ^π : 2556.6γ to 0 ⁺ ; direct population in ^{112}Sb ε decay (J ^π =(3 ⁺)).
2556.6 3	(2 ⁺)		B		J ^π : L(p,t)=0; 1360.92γ E2 to 2 ⁺ . T _{1/2} : Other: >0.8 ps from B(E2)(0 ⁺ → 2 ⁺) <0.016 (1981Ba05). XREF: M(2723). J ^π : L(p,t)=2; L(p,p')=2; 2721.6γ E2 to 0 ⁺ . XREF: M(2760). J ^π : 1499.5γ M1(+E2) to 2 ⁺ , 508.8γ M1+E2 to 4 ⁺ .
2617.62 18	0 ⁺	>0.4 ps	E	MN	J ^π : L(p,t)=4; L(p,p')=4; 1527.2γ E2 to 2 ⁺ . T _{1/2} : wt. average of 0.35 ps 14 in $^{103}\text{Rh}(^{12}\text{C},\text{p}2\text{n}\gamma)$ (1990ViZW) and 0.31 ps +10-6 in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28).
2721.06 14	2 ⁺	0.8 ps +10-3	B E	MN	
2756.02 9	3 ⁺	>0.8 ps	B E	M	
2765.2 3	0 ⁺ to 4 ⁺	>1.0 ps	E		
2783.66 14	4 ⁺	0.32 ps 7	B EFGHI	MN P	XREF: B(2784.6)M(2786)P(2800). J ^π : L(p,t)=4; L(p,p')=4; 1527.2γ E2 to 2 ⁺ . T _{1/2} : wt. average of 0.35 ps 14 in $^{103}\text{Rh}(^{12}\text{C},\text{p}2\text{n}\gamma)$ (1990ViZW) and 0.31 ps +10-6 in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28).
2860 2				M	
2913.07 21	4 ⁺	>0.6 ps	B E	M	XREF: M(2915). J ^π : L(p,p')=4; 1656.3γ E2 to 2 ⁺ . XREF: B(2918.0). J ^π : 669.9γ to 4 ⁺ , 767.0γ to 2 ⁺ . XREF: M(2928). J ^π : L(p,t)=6; 378.6γ M1 to 6 ⁺ . XREF: M(2947). J ^π : L(p,p')=4; 1688.7γ E2 to 2 ⁺ . XREF: M(2969)N(2966). J ^π : L(p,t)=2; 612.4γ E1 to 3 ⁻ ; 1709.9γ M1(+E2) to 2 ⁺ and 2966.6γ E2 to 0 ⁺ . XREF: P(2970). XREF: M(2989)N(2988). J ^π : L(p,t)=0; 1729.7γ E2 to 2 ⁺ . J ^π : 927.7γ M1+E2 to 2 ⁺ ; 1821.8γ M1+E2 to 2 ⁺ , and 831.1γ to 4 ⁺ . XREF: B(3093.3)M(3095). J ^π : L(p,p')=2; 3092.1γ E2 to 0 ⁺ . XREF: M(3118). J ^π : 962.67γ to 2 ⁺ . XREF: H(3136.5)M(3137)N(3132). J ^π : L(p,p')=5; L(p,t)=5; 779.3γ E2 to 3 ⁻ ; 886.0γ E1 to 4 ⁺ .
2917.39 10	2 ⁺ ,3,4 ⁺	>1.1 ps	B E		
2926.82 18	6 ⁺	>0.22 ps	EF HI	MN	
2945.70 13	4 ⁺	>1.1 ps	B EF HI	M	
2966.63 8	2 ⁺	0.5 ps +8-2	B E	MN	
2969.31 6		0.29 ps +21-9	E	P	
2986.4 3	0 ⁺	>1.7 ps	E	MN	
3078.53 13	(2,3) ⁺	>1.2 ps	B E		
3092.21 10	2 ⁺	0.25 ps +8-5	B E	M	
3113.54 15	0 ⁺ to 4 ⁺		E	M	
3133.42 11	5 ⁻	>1.0 ps	E H	MN	
3141.1 4			E		
3149.28 21	4 ⁺	0.6 ps +10-2	B E	M P	XREF: M(3152)P(3150). J ^π : L(p,p')=4; 1892.2γ E2 to 2 ⁺ .

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Adopted Levels, Gammas (continued)

^{112}Sn Levels (continued)					
E(level) [†]	J ^π	T _{1/2} [‡]	XREF		Comments
3248.69 10	2 ⁺	>1.1 ps	B	E MN	XREF: M(3253). J ^π : L(p,t)=2; 3248.1γ E2 to 0 ⁺ .
3272.31 16	4 ⁺	0.30 ps +21-10	E	MN	XREF: M(3278)N(3275). J ^π : L(p,p')=4; L(p,t)=4; 2016.1γ E2 to 2 ⁺ .
3283.60 21	2 ⁺		E	n	XREF: n(3286). J ^π : L(p,t)=2; 1036.2γ to 4 ⁺ .
3286.18 15	(2) ⁺	0.22 ps +15-7	B	E n	XREF: n(3286). J ^π : 2029.4γ M1(+E2) to 2 ⁺ and 3286.2γ to 0 ⁺ ; direct population in ^{112}Sb ε decay (J ^π =(3 ⁺)).
3288.0 3	(1,2 ⁺)		E	M	XREF: M(3292). J ^π : 1097.2γ to 0 ⁺ .
3338.3 3	2 ⁺	>0.3 ps	E	N	XREF: N(3345). J ^π : 2081.6γ M1+E2 to 2 ⁺ ; L(p,t)=2.
3353.1 4	2 ⁺	>1.4 ps	E		J ^π : 2096.4γ M1+E2 to 2 ⁺ and 3353.0γ E2 γ to 0 ⁺ .
3354.38 15	(7) ⁻		F HI K M		XREF: H(3355.0)K(3360)M(3360). J ^π : 805.11γ E1 to 6 ⁺ ; yrast state, but 5 ⁻ and 6 ⁻ cannot unambiguously be excluded. configuration: possible $\nu d_{3/2} h_{11/2}$ configuration.
3378.9 3	0 ⁺ to 4 ⁺		E		J ^π : 1228.0γ to 2 ⁺ .
3384.30 22	(3) ⁻	0.18 ps +8-5	B	E M	XREF: M(3387). J ^π : 2127.50γ E1 to 2 ⁺ , but 1 ⁻ and 2 ⁻ cannot unambiguously be excluded.
3397.20 12	2 ⁻ , 3 ⁻	0.23 ps +10-6	E		J ^π : 1042.95γ M1+E2 to 3 ⁻ and 1246.6γ to 2 ⁺ .
3400 3	4 ⁺			MN	XREF: M(3402). J ^π : L(p,t)=4.
3413.93@ 12	6 ⁺ @	0.6 ps 3	EFGHI	N	J ^π : L(p,t)=4,6; 1166.9γ E2 to 4 ⁺ ; member of ΔJ=2 sequence.
3417.41 11	4 ⁺	>0.4 ps	B	E M P	T _{1/2} : From DSAM in $^{103}\text{Rh}(^{12}\text{C}, p2n\gamma)$ (1990ViZW). XREF: M(3424)P(3430). J ^π : L(p,p')=4; 2160.7γ E2 to 2 ⁺ .
3430.65 22	(8) ⁻	0.61 ns 3	FGHI		J ^π : 76.3γ M1+E2 to (7) ⁻ ; no transitions to the 6 ⁺ states. T _{1/2} : weighed average of 0.58 ns 6 from $\gamma\gamma(t)$ in $^{110}\text{Cd}(\alpha, 2n\gamma)$ (1980Va13) and 0.62 ns 4 from recoil distance method in $^{100}\text{Mo}(^{16}\text{O}, 4n\gamma)$ (1986Ka25).
3433.9 5	(1 ⁻)	1.9 fs +11-10	DE	M	XREF: D(3434)M(3440). J ^π : 3433.3γ (E1) to 0 ⁺ ; B(E1)=11.5×10 ⁻⁵ 11 (2014Oz03), 10.7×10 ⁻⁵ 12 (2006Py01).
3445 3	4 ⁺			N	
3456.31 20	2 ⁺ , 3 ⁺	>0.7 ps	B	E	J ^π : 2199.6γ M1+E2 to 2 ⁺ ; direct population in ^{112}Sb ε decay (J ^π =(3 ⁺)).
3471.7 3	4 ⁺	>0.23 ps	E	MN	XREF: M(3477)N(3481). J ^π : L(p,t)=4; 951.0γ to 4 ⁺ .
3494.00 21	2 ⁺ to 6 ⁺		E		J ^π : 1246.6γ to 4 ⁺ .
3499.21 16	5 ⁻	0.04 ps +4-2	E	MN	XREF: M(3502)N(3510). J ^π : L(p,t)=5; 979.3γ to 4 ⁺ , 1144.2γ to 3 ⁻ .
3520.45 20	1 to 4 ⁺		E	M	XREF: M(3522).
3524.54 18	2 ⁺	>0.12 ps	B	E	J ^π : 1277.7γ E2 to 4 ⁺ ; 3524.2γ E2 to 0 ⁺ .
3530.15 14	2 ⁺ , 3, 4 ⁺		B	E M	XREF: M(3532). J ^π : 380.8γ to 4 ⁺ , 1379.6γ to 2 ⁺ .
3553.7 3	(3) ⁻	0.17 ps +11-6	B	E N	J ^π : L(p,t)=3; 2297.0γ to 2 ⁺ .
3557.29 12		>0.3 ps	E	M	XREF: M(3558).
3570	(0) ⁺			O	J ^π : L(^3He , n)=0.
3580 5	(4) ⁺			M	J ^π : L(p,p')=4.
3586 3	(2) ⁺			N	J ^π : L(p,t)=2.
3604.90 12			E		

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Adopted Levels, Gammas (continued) ^{112}Sn Levels (continued)

E(level) [†]	J ^π	T _{1/2} [‡]	XREF		Comments
3610.97 11		0.8 ps +4-2	E	M	XREF: M(3611).
3624 3	(2 ⁺ ,4 ⁺)			MN	J ^π : L(p,p')=(2) in 1980BI01 supports (2 ⁺), while L(p,t)=4 in (2012Gu10) supports 4 ⁽⁺⁾ .
3631.03 24			E		
3654.34 15	2 ⁺		E	MN	XREF: N(3663).
3693.68 22	(9) ⁻	47 ps 7	FGHI	M	J ^π : L(p,p')=2; 2397.6γ M1+E2 to 2 ⁺ . XREF: M(3695). J ^π : 263.03γ M1+E2 to (8) ⁻ .
					T _{1/2} : From recoil-distance measurements in ¹⁰⁰ Mo(¹⁶ O,4nγ) (1986Ka25); Other: 0.69 ps 14 in ¹⁰³ Rh(¹² C,p2nγ) (1990ViZW).
3726.22 21			E	MN	XREF: M(3737)N(3715).
3754.4 3			E	M	XREF: M(3756).
3782.9 3			E	MN	XREF: M(3773)N(3776).
3813.78 10	(2 ⁺ ,3 ⁺ ,4 ⁺)		B	MN	XREF: M(3815)N(3818).
					J ^π : 1566.4γ to 4 ⁺ ; direct population in ¹¹² Sb ε decay (J ^π =(3 ⁺)).
3832 7				M	
3857 7				M	
3877 7				MN	XREF: N(3874).
3914 7				MN	XREF: N(3930).
3988 7				M	
4031 7				MN	XREF: N(4048).
4054 7				M	
4077.59 [@] 14	8 ⁺ [@]	1.0 ps 4	FGHI	MN	XREF: M(4078)N(4091). J ^π : 663.66γ E2 to 6 ⁺ ; band member. T _{1/2} : from DSAM in ¹⁰³ Rh(¹² C,p2nγ) (1990ViZW).
4105 7				M	
4141.3 5	(1 ⁻)		D	M	XREF: M(4138). J ^π : 4141.2γ (E1) to 0 ⁺ . B(E1)=0.7×10 ⁻⁵ 2 (2014Oz03).
4151 7				M	
4162.3 5	(1 ⁻)		D	N	XREF: N(4164). J ^π : 4162.2γ (E1) to 0 ⁺ . B(E1)=1.8×10 ⁻⁵ 2 (2014Oz03).
4171 7	4 ⁽⁺⁾			M	J ^π : L(p,p')=4.
4193 7				M	
4222 7				M	
4239 7				MN	XREF: N(4241).
4279 7				MN	XREF: N(4287).
4330.4 5	(1 ⁻)		D	MN	XREF: M(4325)N(4316). J ^π : 4330.3γ (E1) to 0 ⁺ . B(E1)=0.5×10 ⁻⁵ 1 (2014Oz03).
4364 7				MN	XREF: N(4363).
4402 7				M	
4437 7				M	
4461 7				MN	XREF: N(4455).
4502 7				MN	XREF: N(4486).
4544 7				M	
4582.61 25	(10) ⁻	0.24 ps 7	FGHI	MN	XREF: M(4571)N(4576). J ^π : 1151.94γ E2 to (8) ⁻ . T _{1/2} : from DSAM in ¹⁰³ Rh(¹² C,p2nγ) (1990ViZW). Other: <21 ps from RDDS in ¹⁰⁰ Mo(¹⁶ O,4nγ) (1986Ka25);
4610 7				MN	XREF: N(4629).
4681.0 3	(10 ⁺)		HI	M	XREF: H(4680.2)M(4685).

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Adopted Levels, Gammas (continued) ^{112}Sn Levels (continued)

E(level) [†]	J ^π	T _{1/2} [‡]	XREF		Comments
4726.5 5	(1 ⁻)		D	MN	J ^π : 603.1γ to 8 ⁺ , 987.4γ to (9) ⁻ . XREF: M(4738)N(4724). J ^π : 4726.4γ (E1) to 0 ⁺ . B(E1)=0.3×10 ⁻⁵ 1 (2014Oz03). XREF: N(4740).
4757 7				MN	
4794 7				M	
4819.37 [@] 22	10 ⁺ [@]	0.14 ps 7	FGHI	M	XREF: M(4825). J ^π : 741.8γ E2 to 8 ⁺ ; band member. T _{1/2} : from DSAM in ¹⁰³ Rh(¹² C,p2nγ) (1990ViZW). J ^π : 4837.3γ (E1) to 0 ⁺ . B(E1)=0.7×10 ⁻⁵ 1 (2014Oz03).
4837.4 5	(1 ⁻)		D		
4850 7				M	
4887 7				M	
4928.9 4	(11) ⁻	<21 ps	F HI	M	J ^π : 1235.3γ E2 to (9) ⁻ , 345.9γ M1+E2 to (10) ⁻ . T _{1/2} : from recoil distance method in ¹⁰⁰ Mo(¹⁶ O,4nγ) (1986Ka25).
4957 7				M	
5057.1 5	(1 ⁻)		D	M	XREF: M(5059). J ^π : 5057.0γ (E1) to 0 ⁺ . B(E1)=3.0×10 ⁻⁵ 3 (2014Oz03).
5089 7				M	
5128.2 5	(1 ⁻)		D	M	XREF: M(5116). J ^π : 5128.1γ (E1) to 0 ⁺ . B(E1)=4.2×10 ⁻⁵ 4.
5144 7				M	
5181 7				M	
5246.2 5	(1 ⁻)		D		J ^π : 5246.1γ (E1) to 0 ⁺ . B(E1)=3.3×10 ⁻⁵ 3 (2014Oz03).
5270 7				M	
5355 7				M	
5480.5 5	(1 ⁻)		D		J ^π : 5480.4γ (E1) to 0 ⁺ . B(E1)=1.2×10 ⁻⁵ 2 (2014Oz03).
5502.6 5	(1 ⁻)		D		J ^π : 5502.5γ (E1) to 0 ⁺ . B(E1)=1.5×10 ⁻⁵ 2 (2014Oz03).
5564.3 ^{&} 3	12 ⁺	0.66 ps 14	FGHI		J ^π : 745.0γ E2 to 10 ⁺ ; band member. T _{1/2} : from DSAM in ¹⁰⁰ Mo(²⁰ Ne,α4nγ) (2007Ga45). Other: <0.14 ps in ¹⁰³ Rh(¹² C,p2nγ) (1990ViZW).
5593.7 5	(1 ⁻)		D		J ^π : 5593.6γ (E1) to 0 ⁺ . B(E1)=0.7×10 ⁻⁵ 1 (2014Oz03).
5617.6 5	(1 ⁻)		D		J ^π : 5617.4γ (E1) to 0 ⁺ . B(E1)=0.6×10 ⁻⁵ 1 (2014Oz03).
5649.1 5	(1 ⁻)		D		J ^π : 5648.9γ (E1) to 0 ⁺ . B(E1)=0.7×10 ⁻⁵ 1 (2014Oz03).
5666.4 5	(1 ⁻)		D		J ^π : 5666.2γ (E1) to 0 ⁺ . B(E1)=0.4×10 ⁻⁵ 1 (2014Oz03).
5684.59 24	12 ⁺		F HI		J ^π : 865.2γ E2 to 10 ⁺ .
5699.9 5	(1 ⁻)		D		J ^π : 5699.7γ (E1) to 0 ⁺ . B(E1)=0.5×10 ⁻⁵ 1 (2014Oz03).
5748.6 5	(1 ⁻)		D		J ^π : 5748.4γ (E1) to 0 ⁺ . B(E1)=1.0×10 ⁻⁵ 1 (2014Oz03).
5812.7 5	(1 ⁻)		D		J ^π : 5812.5γ (E1) to 0 ⁺ . B(E1)=0.5×10 ⁻⁵ 1 (2014Oz03).
5860.7 5	(1 ⁻)		D		J ^π : 5860.5γ (E1) to 0 ⁺ . B(E1)=2.3×10 ⁻⁵ 4 (2014Oz03).
5884.0 5	(1 ⁻)		D		J ^π : 5883.8γ (E1) to 0 ⁺ .

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Adopted Levels, Gammas (continued)

^{112}Sn Levels (continued)				
E(level) [†]	J ^π	T _{1/2} [‡]	XREF	Comments
5924.1 5	(1 ⁻)		D	B(E1)=1.4×10 ⁻⁵ 2 (2014Oz03). J ^π : 5923.9γ (E1) to 0 ⁺ .
5976.6 5	(1 ⁻)		D	B(E1)=1.5×10 ⁻⁵ 2 (2014Oz03). J ^π : 5976.4γ (E1) to 0 ⁺ .
6005.0 10	(1 ⁻)		D	B(E1)=1.7×10 ⁻⁵ 2 (2014Oz03). J ^π : 6004.8γ (E1) to 0 ⁺ .
6059.8 10	(1 ⁻)		D	B(E1)=3.2×10 ⁻⁵ 3 (2014Oz03). J ^π : 6059.6γ (E1) to 0 ⁺ .
6080.9 10	(1 ⁻)		D	B(E1)=6.1×10 ⁻⁵ 6 (2014Oz03). J ^π : 6080.7γ (E1) to 0 ⁺ .
6096.9 10	(1 ⁻)		D	B(E1)=0.9×10 ⁻⁵ 2 (2014Oz03). J ^π : 6096.7γ (E1) to 0 ⁺ .
6129.0 10	(1 ⁻)		D	B(E1)=3.6×10 ⁻⁵ 2 (2014Oz03). J ^π : 6128.8γ (E1) to 0 ⁺ .
6150.4 10	(1 ⁻)		D	B(E1)=1.4×10 ⁻⁵ 2 (2014Oz03). J ^π : 6150.2γ (E1) to 0 ⁺ .
6168.3 10	(1 ⁻)		D	B(E1)=3.4×10 ⁻⁵ 3 (2014Oz03). J ^π : 6168.1γ (E1) to 0 ⁺ .
6198.7 10	(1 ⁻)		D	B(E1)=1.2×10 ⁻⁵ 2 (2014Oz03). J ^π : 6198.5γ (E1) to 0 ⁺ .
6224.3 10	(1 ⁻)		D	B(E1)=2.2×10 ⁻⁵ 2 (2014Oz03). J ^π : 6224.1γ (E1) to 0 ⁺ .
6246.4 10	(1 ⁻)		D	B(E1)=3.7×10 ⁻⁵ 3 (2014Oz03). J ^π : 6246.2γ (E1) to 0 ⁺ .
6259.1 10	(1 ⁻)		D	B(E1)=1.8×10 ⁻⁵ 2 (2014Oz03). J ^π : 6259.1γ (E1) to 0 ⁺ .
6272.6 10	(1 ⁻)		D	B(E1)=1.5×10 ⁻⁵ 2 (2014Oz03). J ^π : 6272.4γ (E1) to 0 ⁺ .
6313.3 10	(1 ⁻)		D	B(E1)=2.5×10 ⁻⁵ 3 (2014Oz03). J ^π : 6313.1γ (E1) to 0 ⁺ .
6348.7 10	(1 ⁻)		D	B(E1)=2.9×10 ⁻⁵ 3 (2014Oz03). J ^π : 6348.5γ (E1) to 0 ⁺ .
6362.9 ^{&} 3	14 ⁺	1.2 ps 3	HI	B(E1)=1.5×10 ⁻⁵ 2 (2014Oz03). J ^π : 798.6γ E2 to 12 ⁺ ; band member.
6388.1 10	(1 ⁻)		D	T _{1/2} : from DSAM in ¹⁰⁰ Mo(²⁰ Ne,α4nγ) (2007Ga45). J ^π : 6387.9γ (E1) to 0 ⁺ .
6398.3 ^a 5	(13 ⁻)		HI	B(E1)=7.3×10 ⁻⁵ 5 (2014Oz03), 5.17×10 ⁻⁵ 2 (2008BoZK). XREF: H(6399.5).
6404.1 10	(1 ⁻)		D	J ^π : 1469.4γ to (11) ⁻ ; band member. J ^π : 6403.9γ (E1) to 0 ⁺ .
6428.6 10	(1 ⁻)		D	B(E1)=18.4×10 ⁻⁵ 13 (2014Oz03), B(E1)=8.47×10 ⁻⁵ 3 (2008BoZK). J ^π : 6428.4γ (E1) to 0 ⁺ .
6450.0 10	(1 ⁻)		D	B(E1)=1.2×10 ⁻⁵ 2 (2014Oz03), B(E1)=4.89×10 ⁻⁵ 2 (2008BoZK). J ^π : 6449.8γ (E1) to 0 ⁺ .
6476.3 15	(1 ⁻)		D	B(E1)=1.2×10 ⁻⁵ 2 (2014Oz03). J ^π : 6476.1γ (E1) to 0 ⁺ .
6520.7 10	(1 ⁻)		D	B(E1)=7.46×10 ⁻⁵ 4 (2008BoZK). J ^π : 6520.5γ (E1) to 0 ⁺ .
6550.1 10	(1 ⁻)		D	B(E1)=3.2×10 ⁻⁵ 3 (2014Oz03). J ^π : 6549.9γ (E1) to 0 ⁺ .
6601.0 10	(1 ⁻)		D	B(E1)=0.6×10 ⁻⁵ 1 (2014Oz03). J ^π : 6600.8γ (E1) to 0 ⁺ .
				B(E1)=1.7×10 ⁻⁵ 2 (2014Oz03).

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Adopted Levels, Gammas (continued) ^{112}Sn Levels (continued)

E(level) [†]	J ^π	T _{1/2} [‡]	XREF	Comments
6679.9 10	(1 ⁻)		D	J ^π : 6679.7γ (E1) to 0 ⁺ . B(E1)=0.7×10 ⁻⁵ 1 (2014Oz03).
6706.7 10	(1 ⁻)		D	J ^π : 6706.5γ (E1) to 0 ⁺ . B(E1)=1.8×10 ⁻⁵ 2 (2014Oz03).
6715.0 10	(1 ⁻)		D	J ^π : 6714.8γ (E1) to 0 ⁺ . B(E1)=1.5×10 ⁻⁵ 6 (2014Oz03), 3.03×10 ⁻⁵ 1 (2008BoZK).
6731.9 10	(1 ⁻)		D	J ^π : 6731.7γ (E1) to 0 ⁺ . B(E1)=2.7×10 ⁻⁵ 5 (2014Oz03), 2.66×10 ⁻⁵ 1 (2008BoZK).
6795.5 10	(1 ⁻)		D	J ^π : 6795.3γ (E1) to 0 ⁺ . B(E1)=1.7×10 ⁻⁵ 2 (2014Oz03), 2.01×10 ⁻⁵ 1 (2008BoZK).
6818.7 10	(1 ⁻)		D	J ^π : 6818.5γ (E1) to 0 ⁺ . B(E1)=1.3×10 ⁻⁵ 2 (2014Oz03), 3.16×10 ⁻⁵ 1 (2008BoZK).
6824.2 10	(1 ⁻)		D	J ^π : 6824.0γ (E1) to 0 ⁺ . B(E1)=1.7×10 ⁻⁵ 3 (2014Oz03).
6855.9 10	(1 ⁻)		D	J ^π : 6855.7γ (E1) to 0 ⁺ . B(E1)=1.5×10 ⁻⁵ 2 (2014Oz03).
6871.2 10	(1 ⁻)		D	J ^π : 6871.0γ (E1) to 0 ⁺ . B(E1)=1.7×10 ⁻⁵ 2 (2014Oz03).
6941.2 10	(1 ⁻)		D	J ^π : 6941.0γ (E1) to 0 ⁺ . B(E1)=3.1×10 ⁻⁵ 3 (2014Oz03).
6961.5 10	(1 ⁻)		D	J ^π : 6961.3γ (E1) to 0 ⁺ . B(E1)=3.1×10 ⁻⁵ 5 (2014Oz03).
6982.7 10	(1 ⁻)		D	J ^π : 6982.5γ (E1) to 0 ⁺ . B(E1)=2.1×10 ⁻⁵ 3 (2014Oz03).
7009.8 10	(1 ⁻)		D	J ^π : 7009.6γ (E1) to 0 ⁺ . B(E1)=0.5×10 ⁻⁵ 1 (2014Oz03).
7018.7 10	(1 ⁻)		D	J ^π : 7018.5γ (E1) to 0 ⁺ . B(E1)=0.7×10 ⁻⁵ 1 (2014Oz03).
7025.8 10	(1 ⁻)		D	J ^π : 7025.6γ (E1) to 0 ⁺ . B(E1)=0.7×10 ⁻⁵ 1 (2014Oz03).
7043.1 10	(1 ⁻)		D	J ^π : 7042.9γ (E1) to 0 ⁺ . B(E1)=2.0×10 ⁻⁵ 3 (2014Oz03).
7092.8 10	(1 ⁻)		D	J ^π : 7092.6γ (E1) to 0 ⁺ . B(E1)=4.2×10 ⁻⁵ 4 (2014Oz03).
7167.2 10	(1 ⁻)		D	J ^π : 7167.0γ (E1) to 0 ⁺ . B(E1)=2.8×10 ⁻⁵ 3 (2014Oz03).
7198.2 10	(1 ⁻)		D	J ^π : 7198.0γ (E1) to 0 ⁺ . B(E1)=4.4×10 ⁻⁵ 6 (2014Oz03), 2.66×10 ⁻⁵ 1 (2008BoZK).
7207.1 ^a 5	(15 ⁻)		HI	XREF: H(7208.5). J ^π : 808.8γ to (13 ⁻); band member.
7208.1 10	1 ⁻		D	J ^π : 7207.9γ (E1) to 0 ⁺ . B(E1)=1.18×10 ⁻⁵ 1 (2008BoZK).
7214.2 ^{&} 3	16 ⁺	0.55 ps 10	HI	XREF: H(7213.0). J ^π : 851.3γ E2 to 14 ⁺ ; band member.
7217.8 11	(1 ⁻)		D	T _{1/2} : from DSAM in ¹⁰⁰ Mo(²⁰ Ne,α4nγ) (2007Ga45). J ^π : 7217.6γ (E1) to 0 ⁺ . B(E1)=1.89×10 ⁻⁵ 1 (2008BoZK).
7228.1 10	(1 ⁻)		D	J ^π : 7227.8γ (E1) to 0 ⁺ . B(E1)=1.2×10 ⁻⁵ 2 (2014Oz03), 2.01×10 ⁻⁵ 1 (2008BoZK).
7248.4 14	(1 ⁻)		D	J ^π : 7248.1γ (E1) to 0 ⁺ . B(E1)=2.01×10 ⁻⁵ 1 (2008BoZK).
7311.1 10	(1 ⁻)		D	J ^π : 7310.8γ (E1) to 0 ⁺ . B(E1)=1.0×10 ⁻⁵ 2 (2014Oz03).

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Adopted Levels, Gammas (continued) ^{112}Sn Levels (continued)

E(level) [†]	J ^π	T _{1/2} [‡]	XREF	Comments
7389.9 10	(1 ⁻)		D	J ^π : 7389.6γ (E1) to 0 ⁺ . B(E1)=1.3×10 ⁻⁵ 2 (2014Oz03).
7438.6 10	(1 ⁻)		D	J ^π : 7438.3γ (E1) to 0 ⁺ . B(E1)=1.9×10 ⁻⁵ 3 (2014Oz03).
7444.1 10	(1 ⁻)		D	J ^π : 7443.8γ (E1) to 0 ⁺ . B(E1)=1.6×10 ⁻⁵ 3 (2014Oz03).
7468.3 10	(1 ⁻)		D	J ^π : 7468.0γ (E1) to 0 ⁺ . B(E1)=1.3×10 ⁻⁵ 3 (2014Oz03).
7531.3 10	(1 ⁻)		D	J ^π : 7531.0γ (E1) to 0 ⁺ . B(E1)=2.9×10 ⁻⁵ 4 (2014Oz03).
7537.2 10	(1 ⁻)		D	J ^π : 7536.9γ (E1) to 0 ⁺ . B(E1)=5.2×10 ⁻⁵ 6 (2014Oz03).
7559.1 10	(1 ⁻)		D	J ^π : 7558.8γ (E1) to 0 ⁺ . B(E1)=2.1×10 ⁻⁵ 3 (2014Oz03).
7594.5 10	(1 ⁻)		D	J ^π : 7594.2γ (E1) to 0 ⁺ . B(E1)=1.3×10 ⁻⁵ 2 (2014Oz03).
7615.3 10	(1 ⁻)		D	J ^π : 7615.0γ (E1) to 0 ⁺ . B(E1)=1.7×10 ⁻⁵ 3 (2014Oz03).
7859.5 10	(1 ⁻)		D	J ^π : 7859.2γ (E1) to 0 ⁺ . B(E1)=1.2×10 ⁻⁵ 2 (2014Oz03).
7904.7 10	(1 ⁻)		D	J ^π : 7904.4γ (E1) to 0 ⁺ . B(E1)=1.1×10 ⁻⁵ 2 (2014Oz03).
7936.7 10	(1 ⁻)		D	J ^π : 7936.4γ (E1) to 0 ⁺ . B(E1)=1.6×10 ⁻⁵ 2 (2014Oz03).
7988.2 10	(1 ⁻)		D	J ^π : 7987.9γ (E1) to 0 ⁺ . B(E1)=3.4×10 ⁻⁵ 3 (2014Oz03).
8020.7 10	(1 ⁻)		D	J ^π : 8020.4γ (E1) to 0 ⁺ . B(E1)=2.3×10 ⁻⁵ 4 (2014Oz03).
8051.6 10	(1 ⁻)		D	J ^π : 8051.3γ (E1) to 0 ⁺ . B(E1)=2.2×10 ⁻⁵ 3 (2014Oz03).
8069.6 10	(1 ⁻)		D	J ^π : 8069.3γ (E1) to 0 ⁺ . B(E1)=2.6×10 ⁻⁵ 4 (2014Oz03).
8083.0 ^a 5	(17 ⁻)		HI	XREF: H(8089.0). J ^π : 875.9γ to (15 ⁻); band member.
8147.1 ^{&} 4	18 ⁺	0.34 ps +8-10	HI	XREF: H(8145.0). J ^π : 932.9γ E2 to 16 ⁺ ; band member. T _{1/2} : from DSAM in ¹⁰⁰ Mo(²⁰ Ne,α4nγ) (2007Ga45).
8194.5 10	(1 ⁻)		D	J ^π : 8194.2γ (E1) to 0 ⁺ . B(E1)=2.7×10 ⁻⁵ 4 (2014Oz03).
8218.2 10	(1 ⁻)		D	J ^π : 8217.9γ (E1) to 0 ⁺ . B(E1)=1.4×10 ⁻⁵ 2 (2014Oz03).
8253.6 10	(1 ⁻)		D	J ^π : 8253.3γ (E1) to 0 ⁺ . B(E1)=0.9×10 ⁻⁵ 2 (2014Oz03).
8448.6 10	(1 ⁻)		D	J ^π : 8448.3γ (E1) to 0 ⁺ . B(E1)=0.7×10 ⁻⁵ 2 (2014Oz03).
8568.9 10	(1 ⁻)		D	J ^π : 8568.5γ (E1) to 0 ⁺ . B(E1)=0.8×10 ⁻⁵ 2 (2014Oz03).
8600.4 10	(1 ⁻)		D	J ^π : 8600.0γ (E1) to 0 ⁺ . B(E1)=0.5×10 ⁻⁵ 2 (2014Oz03).
8750.2 10	(1 ⁻)		D	J ^π : 8749.8γ (E1) to 0 ⁺ . B(E1)=1.1×10 ⁻⁵ 2 (2014Oz03).
8823.4 10	(1 ⁻)		D	J ^π : 8823.0γ (E1) to 0 ⁺ . B(E1)=1.2×10 ⁻⁵ 3 (2014Oz03).

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Adopted Levels, Gammas (continued) ^{112}Sn Levels (continued)

E(level) [†]	J ^π	T _{1/2} [‡]	XREF	Comments
9045.2 ^a 6	(19 ⁻)		HI	XREF: H(9051). J ^π : 962.2γ to (17 ⁻); band member.
9050.5 10	(1 ⁻)		D	J ^π : 9050.1γ (E1) to 0 ⁺ . B(E1)=1.6×10 ⁻⁵ 4 (2014Oz03).
9095.3 10	(1 ⁻)		D	J ^π : 9094.9γ (E1) to 0 ⁺ . B(E1)=1.0×10 ⁻⁵ 2 (2014Oz03).
9150.1 10	(1 ⁻)		D	J ^π : 9149.7γ (E1) to 0 ⁺ . B(E1)=0.9×10 ⁻⁵ 3 (2014Oz03).
9186.6 ^{&} 4	20 ⁺	0.22 ps 6	HI	XREF: H(9184). J ^π : 1039.5γ E2 to 18 ⁺ ; band member.
9329.8 10	(1 ⁻)		D	T _{1/2} : from DSAM in ¹⁰⁰ Mo(²⁰ Ne,α4nγ) (2007Ga45). J ^π : 9329.4γ (E1) to 0 ⁺ . B(E1)=2.1×10 ⁻⁵ 5 (2014Oz03).
10076.2 ^a 12	(21 ⁻)		HI	XREF: H(10082). J ^π : 1031.0γ to (19 ⁻); band member.
10335.7 ^{&} 5	22 ⁺	0.14 ps 4	HI	XREF: H(10332). J ^π : 1149.1γ E2 to 20 ⁺ ; band member.
11570.6 ^{&} 7	(24 ⁺)	<0.35 ps	I	T _{1/2} : from DSAM in ¹⁰⁰ Mo(²⁰ Ne,α4nγ) (2007Ga45). J ^π : 1234.9γ to 22 ⁺ ; band member.
12965.1 ^a 13	(26 ⁺)		I	T _{1/2} : from DSAM in ¹⁰⁰ Mo(²⁰ Ne,α4nγ) (2007Ga45). J ^π : 1395.0γ to (24 ⁺); band member.

[†] From a least-squares fit to Eγ.[‡] From DSAM in ¹¹²Sn(n,n'γ) (2005Ku28), unless otherwise noted.

Ground state band.

@ Probable member of the ΔJ=2 sequence; configuration=πg_{9/2}⁻²⊗πg_{7/2}².& Band(A): Probable member of a ΔJ=2 band on the 5564.3 (J^π=12⁺) state; configuration=π[g_{9/2}⁻²g_{7/2}²]⊗vh_{11/2}².^a Band(B): Probable member of a ΔJ=2 band on the 6398.3 (J^π=13⁻) state; configuration=π[g_{9/2} 1h_{11/2}]⊗vh_{11/2}².

Adopted Levels, Gammas (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. #	$\delta^{\ddagger\#c}$	$\gamma(^{112}\text{Sn})$	$I_{(\gamma+ce)}$	Comments
								α^b		
1256.69	2 ⁺	1256.68 4	100	0.0	0 ⁺	E2		8.05×10^{-4}		$\alpha(\text{K})=0.000687$ 10; $\alpha(\text{L})=8.28 \times 10^{-5}$ 12; $\alpha(\text{M})=1.616 \times 10^{-5}$ 23 $\alpha(\text{N})=3.04 \times 10^{-6}$ 5; $\alpha(\text{O})=2.62 \times 10^{-7}$ 4; $\alpha(\text{IPF})=1.523 \times 10^{-5}$ 22 B(E2)(W.u.)=14.96 20 Mult.: $\alpha(\text{K})_{\text{exp}}=0.00060$ 8 in $^{110}\text{Cd}(\alpha, 2n\gamma)$ (1979Br07); $A_2=0.64$ 8 and $A_4=-0.82$ 8 in Coulomb excitation (2011Wa15); Alternatively, $A_2=0.90$ 6 and $A_4=-0.71$ 6 in Coulomb excitation (2011Wa15). $A_2=0.243$ 5 and $A_4=-0.048$ 9 in $^{110}\text{Cd}(\alpha, 2n\gamma)$ (1979Br07); DCO=1.01 6 in $^{100}\text{Mo}(^{20}\text{Ne}, \alpha 4n\gamma)$ (2007Ga45); $P_\gamma=0.39$ in $^{110}\text{Cd}(\alpha, 2n\gamma)$ (1979Br07) and $+0.05$ 2 in $^{100}\text{Mo}(^{20}\text{Ne}, \alpha 4n\gamma)$ (2007Ga45).
2150.87	2 ⁺	894.17 4	100 1	1256.69	2 ⁺	M1+E2	-0.28 6	0.00199		$\alpha(\text{K})=0.00173$ 3; $\alpha(\text{L})=0.000207$ 3; $\alpha(\text{M})=4.05 \times 10^{-5}$ 6 $\alpha(\text{N})=7.63 \times 10^{-6}$ 12; $\alpha(\text{O})=6.71 \times 10^{-7}$ 11 B(M1)(W.u.)=0.017 5; B(E2)(W.u.)=1.4 7 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(n, n'\gamma)$ (2005Ku28).
		2150.9 4	16.7 @ 11	0.0	0 ⁺	E2		6.53×10^{-4}		$\alpha(\text{K})=0.000245$ 4; $\alpha(\text{L})=2.88 \times 10^{-5}$ 4; $\alpha(\text{M})=5.60 \times 10^{-6}$ 8 $\alpha(\text{N})=1.055 \times 10^{-6}$ 15; $\alpha(\text{O})=9.27 \times 10^{-8}$ 13; $\alpha(\text{IPF})=0.000372$ 6 B(E2)(W.u.)=0.039 12 Mult.: from $\gamma(\theta)$ in 2005Ku28.
2190.81	0 ⁺	934.12 4	100	1256.69	2 ⁺	E2		1.50×10^{-3}		$\alpha(\text{K})=0.001301$ 19; $\alpha(\text{L})=0.0001608$ 23; $\alpha(\text{M})=3.14 \times 10^{-5}$ 5 $\alpha(\text{N})=5.90 \times 10^{-6}$ 9; $\alpha(\text{O})=5.00 \times 10^{-7}$ 7 B(E2)(W.u.)<9.2 E_γ : 928 in $^{100}\text{Mo}(^{16}\text{O}, 4n\gamma)$, $^{98}\text{Mo}(^{16}\text{O}, 2n\gamma)$ (1988Ha20). Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(n, n'\gamma)$ (2005Ku28).
		2190.9 5		0.0	0 ⁺	E0			0.1455 21	E_γ , Mult.: from ce measurements in $^{112}\text{Sn}(p, p'\gamma)$ (1981Ba05). $I_{(\gamma+ce)}$: from Ice(K)(2190.9 γ)/Ice(K)(934.12 γ)=0.55 10 in $^{112}\text{Sn}(p, p'\gamma)$ (1981Ba05), $\alpha(\text{K})(934.12\gamma)=0.001301$ 19, $I_\gamma(934.12\gamma)=100$ and $\Omega_K/\Omega_T=0.8942$ (2008Ki07).
2247.39	4 ⁺	990.69 4	100	1256.69	2 ⁺	E2		1.31×10^{-3}		$\alpha(\text{K})=0.001140$ 16; $\alpha(\text{L})=0.0001402$ 20; $\alpha(\text{M})=2.74 \times 10^{-5}$ 4 $\alpha(\text{N})=5.14 \times 10^{-6}$ 8; $\alpha(\text{O})=4.38 \times 10^{-7}$ 7 B(E2)(W.u.)=5.6 9 E_γ : 993 in $^{113}\text{In}(p, 2n\gamma)$ (1969Ya05).

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult.#	$\delta^{\ddagger\#c}$	α^b	Comments
2354.21	3 ⁻	203.2 2		2150.87	2 ⁺	[E1]		0.0246	Mult.: $\alpha(\text{K})\text{exp}=0.0014$ in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1979Br07); $A_2=0.236$ 5 and $A_4=-0.050$ 9 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1979Br07); $\text{DCO}=1.03$ 5 in $^{100}\text{Mo}(^{20}\text{Ne},\alpha 4n\gamma)$ (2007Ga45); $\text{P}\gamma=+0.07$ 3 in $^{100}\text{Mo}(^{20}\text{Ne},\alpha 4n\gamma)$ (2007Ga45) and $\text{P}\gamma=0.37$ in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1979Br07); $\alpha(\text{K})=0.0214$ 3; $\alpha(\text{L})=0.00262$ 4; $\alpha(\text{M})=0.000510$ 8 $\alpha(\text{N})=9.51\times 10^{-5}$ 14; $\alpha(\text{O})=7.67\times 10^{-6}$ 11 $\text{B(E1)(W.u.)}=0.00102$ 7 $\alpha(\text{K})=0.000401$ 6; $\alpha(\text{L})=4.70\times 10^{-5}$ 7; $\alpha(\text{M})=9.13\times 10^{-6}$ 13 $\alpha(\text{N})=1.718\times 10^{-6}$ 24; $\alpha(\text{O})=1.492\times 10^{-7}$ 21 Mult.: $A_2=-0.21$ 3 and $A_4=0.03$ 4 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1980Va13); $\text{P}\gamma=0.34$ 9 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1980Va13); $\alpha(\text{K})\text{exp}<0.0005$ in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1980Va13).
		1097.38 7	100	1256.69	2 ⁺	E1		4.59×10^{-4}	
2476.16	2 ⁺	286		2190.81	0 ⁺				E_γ : from $^{98}\text{Mo}(^{16}\text{O},2n\gamma)$ (2003Wo15). $\text{B(M1)(W.u.)}<0.00071$; $\text{B(E2)(W.u.)}<0.13$ $\alpha(\text{K})=0.000845$ 14; $\alpha(\text{L})=0.0001006$ 16; $\alpha(\text{M})=1.96\times 10^{-5}$ 3 $\alpha(\text{N})=3.70\times 10^{-6}$ 6; $\alpha(\text{O})=3.25\times 10^{-7}$ 6; $\alpha(\text{IPF})=8.59\times 10^{-6}$ 14 Mult., δ : from $\gamma(\theta)$ in $^{112}\text{Sn}(n,n'\gamma)$ (2005Ku28). $\text{B(E2)(W.u.)}<0.066$ $\alpha(\text{K})=0.000191$ 3; $\alpha(\text{L})=2.23\times 10^{-5}$ 4; $\alpha(\text{M})=4.34\times 10^{-6}$ 6 $\alpha(\text{N})=8.18\times 10^{-7}$ 12; $\alpha(\text{O})=7.20\times 10^{-8}$ 10; $\alpha(\text{IPF})=0.000529$ 8 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(n,n'\gamma)$ (2005Ku28). $\alpha(\text{K})=0.000679$ 10; $\alpha(\text{L})=8.18\times 10^{-5}$ 12; $\alpha(\text{M})=1.596\times 10^{-5}$ 23 $\alpha(\text{N})=3.00\times 10^{-6}$ 5; $\alpha(\text{O})=2.59\times 10^{-7}$ 4; $\alpha(\text{IPF})=1.648\times 10^{-5}$ 24 $\text{B(E2)(W.u.)}=13$ 5 Mult.: $\alpha(\text{K})\text{exp}=0.0007$ 2 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1979Br07); $A_2=0.218$ 11 and $A_4=-0.07$ 2 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1979Br07); $\text{P}\gamma=0.53$ 8 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1979Br07); $\text{B(E2)(W.u.)}=0.496$ 3 $\alpha(\text{K})=0.0292$ 5; $\alpha(\text{L})=0.00448$ 7; $\alpha(\text{M})=0.000889$ 13 $\alpha(\text{N})=0.0001632$ 23; $\alpha(\text{O})=1.155\times 10^{-5}$ 17 Mult.: $\alpha(\text{K})\text{exp}=0.033$ 5 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1980Va13); Also, $A_2=0.220$ 4 and $A_4=-0.04$ 1 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1980Va13); $\text{DCO}=1.11$ 6 in $^{100}\text{Mo}(^{20}\text{Ne},\alpha 4n\gamma)$ (2007Ga45) and $\text{P}\gamma=0.31$ 6 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1980Va13) and $+0.06$ 3 in $^{100}\text{Mo}(^{20}\text{Ne},\alpha 4n\gamma)$ (2007Ga45).
		1219.34 13	20.5 24	1256.69	2 ⁺	M1+E2	-0.54 7	9.77×10^{-4} 16	
		2475.8 3	100.0 24	0.0	0 ⁺	E2		7.48×10^{-4}	
2520.70	4 ⁺	1264.07 7	100	1256.69	2 ⁺	E2		7.96×10^{-4}	
2549.22	6 ⁺	301.84 13	100	2247.39	4 ⁺	E2		0.0348	
2556.6	(2 ⁺)	2556.6@ 3	100@	0.0	0 ⁺				
2617.62	0 ⁺	1360.92 17	100	1256.69	2 ⁺	E2		7.08×10^{-4}	$\alpha(\text{K})=0.000584$ 9; $\alpha(\text{L})=7.01\times 10^{-5}$ 10; $\alpha(\text{M})=1.367\times 10^{-5}$ 20 $\alpha(\text{N})=2.57\times 10^{-6}$ 4; $\alpha(\text{O})=2.23\times 10^{-7}$ 4; $\alpha(\text{IPF})=3.74\times 10^{-5}$ 6 $\text{B(E2)(W.u.)}<9.4$ Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(n,n'\gamma)$ (2005Ku28).

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult.#	$\delta^{\ddagger\#c}$	α^b	Comments
2721.06	2 ⁺	1464.22 15	100@ 4	1256.69	2 ⁺	M1+E2	0.17 10	7.38×10 ⁻⁴	$\alpha(\text{K})=0.000589$ 9; $\alpha(\text{L})=6.96\times 10^{-5}$ 11; $\alpha(\text{M})=1.357\times 10^{-5}$ 21 $\alpha(\text{N})=2.56\times 10^{-6}$ 4; $\alpha(\text{O})=2.26\times 10^{-7}$ 4; $\alpha(\text{IPF})=6.28\times 10^{-5}$ 10 B(M1)(W.u.)=0.007 +3-7; B(E2)(W.u.)=0.08 +10-8 Mult., δ : from $\gamma(\theta)$ in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28).
		2721.6 3	15.9@ 13	0.0	0 ⁺	E2		8.28×10 ⁻⁴	$\alpha(\text{K})=0.0001620$ 23; $\alpha(\text{L})=1.89\times 10^{-5}$ 3; $\alpha(\text{M})=3.67\times 10^{-6}$ 6 $\alpha(\text{N})=6.92\times 10^{-7}$ 10; $\alpha(\text{O})=6.10\times 10^{-8}$ 9; $\alpha(\text{IPF})=0.000643$ 9 B(E2)(W.u.)=0.020 +8-20 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28).
2756.02	3 ⁺	234.8@ 3	5.9@ 6	2520.70	4 ⁺	[M1+E2]		0.0542	$\alpha(\text{K})=0.0469$ 7; $\alpha(\text{L})=0.00586$ 9; $\alpha(\text{M})=0.001148$ 17 $\alpha(\text{N})=0.000216$ 4; $\alpha(\text{O})=1.88\times 10^{-5}$ 3
		279.5@ 2	4.0@ 4	2476.16	2 ⁺	[M1+E2]		0.0343	$\alpha(\text{K})=0.0297$ 5; $\alpha(\text{L})=0.00369$ 6; $\alpha(\text{M})=0.000723$ 11 $\alpha(\text{N})=0.0001361$ 20; $\alpha(\text{O})=1.188\times 10^{-5}$ 17
		401.3@ 5	2.6@ 6	2354.21	3 ⁻	[E1]		0.00406	B(E1)(W.u.)<0.00011 $\alpha(\text{K})=0.00354$ 5; $\alpha(\text{L})=0.000425$ 7; $\alpha(\text{M})=8.28\times 10^{-5}$ 12 $\alpha(\text{N})=1.552\times 10^{-5}$ 23; $\alpha(\text{O})=1.303\times 10^{-6}$ 19
		508.8 ^d 3		2247.39	4 ⁺	M1+E2	0.2 1	0.00757	$\alpha(\text{K})=0.00658$ 10; $\alpha(\text{L})=0.000804$ 12; $\alpha(\text{M})=0.0001572$ 23 $\alpha(\text{N})=2.96\times 10^{-5}$ 5; $\alpha(\text{O})=2.59\times 10^{-6}$ 4 E $_\gamma$: 508.8 γ seen in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28) and I $_\gamma(509)/I_\gamma(1499)=100/18$.
		605.1@ 2	21.2@ 13	2150.87	2 ⁺	[M1+E2]		0.00500	$\alpha(\text{K})=0.00435$ 6; $\alpha(\text{L})=0.000527$ 8; $\alpha(\text{M})=0.0001029$ 15 $\alpha(\text{N})=1.94\times 10^{-5}$ 3; $\alpha(\text{O})=1.705\times 10^{-6}$ 24
		1499.5@ 1	100@ 3	1256.69	2 ⁺	M1(+E2)	≤ 0.08	7.18×10 ⁻⁴	$\alpha(\text{K})=0.000562$ 8; $\alpha(\text{L})=6.64\times 10^{-5}$ 10; $\alpha(\text{M})=1.294\times 10^{-5}$ 19 $\alpha(\text{N})=2.44\times 10^{-6}$ 4; $\alpha(\text{O})=2.16\times 10^{-7}$ 3; $\alpha(\text{IPF})=7.42\times 10^{-5}$ 11 B(E2)(W.u.)<0.014? Mult., δ : from $\gamma(\theta)$ in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28).
2765.2	0 ⁺ to 4 ⁺	1508.5 3	100	1256.69	2 ⁺				E $_\gamma$: from $^{98}\text{Mo}(^{16}\text{O},2\text{n}\gamma)$ (2003Wo15).
2783.66	4 ⁺	536		2247.39	4 ⁺				$\alpha(\text{K})=0.000466$ 7; $\alpha(\text{L})=5.54\times 10^{-5}$ 8; $\alpha(\text{M})=1.080\times 10^{-5}$ 16
		1527.2 2	100	1256.69	2 ⁺	E2		6.25×10 ⁻⁴	$\alpha(\text{N})=2.03\times 10^{-6}$ 3; $\alpha(\text{O})=1.770\times 10^{-7}$ 25; $\alpha(\text{IPF})=9.08\times 10^{-5}$ 13 B(E2)(W.u.)=6.6 15

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [#]	$\delta_{\ddagger\#}^c$	α^b	Comments
2913.07	4 ⁺	392.8 5	12 3	2520.70	4 ⁺	[M1]		0.01440	Mult.: $A_2=-0.09$ 3 and $A_4=0.7$ 2 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1979Br07); $\alpha(\text{K})=0.01250$ 18; $\alpha(\text{L})=0.001535$ 22; $\alpha(\text{M})=0.000300$ 5 $\alpha(\text{N})=5.65\times 10^{-5}$ 9; $\alpha(\text{O})=4.95\times 10^{-6}$ 8 $\text{B}(\text{M1})(\text{W.u.})<0.049$ I_γ : $I_\gamma(392.3)/I_\gamma(1656.7)=12.32\%$ in ^{112}Sb ε decay (1976Wi10,1975WiZX).
		665.6 3	100 3	2247.39	4 ⁺	[M1]		0.00399	$\alpha(\text{K})=0.00347$ 5; $\alpha(\text{L})=0.000419$ 6; $\alpha(\text{M})=8.18\times 10^{-5}$ 12 $\alpha(\text{N})=1.542\times 10^{-5}$ 22; $\alpha(\text{O})=1.357\times 10^{-6}$ 19 $\text{B}(\text{M1})(\text{W.u.})<0.084$ E_γ : not observed in ^{112}Sb ε decay (1976Wi10,1975WiZX).
		1656.3 4	35 3	1256.69	2 ⁺	E2		5.99×10^{-4}	$\text{B}(\text{E2})(\text{W.u.})<0.56$ $\alpha(\text{K})=0.000398$ 6; $\alpha(\text{L})=4.72\times 10^{-5}$ 7; $\alpha(\text{M})=9.20\times 10^{-6}$ 13 $\alpha(\text{N})=1.732\times 10^{-6}$ 25; $\alpha(\text{O})=1.511\times 10^{-7}$ 22; $\alpha(\text{IPF})=0.0001422$ 20 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(\text{n,n}'\gamma)$ (2005Ku28).
2917.39	2 ⁺ ,3,4 ⁺	669.9 1	100 [@] 15	2247.39	4 ⁺				
		767.0 2	11.8 [@] 8	2150.87	2 ⁺				
2926.82	6 ⁺	378.6 3	100	2549.22	6 ⁺	M1		0.01579	$\text{B}(\text{M1})(\text{W.u.})<1.8$ $\alpha(\text{K})=0.01371$ 20; $\alpha(\text{L})=0.001685$ 24; $\alpha(\text{M})=0.000330$ 5 $\alpha(\text{N})=6.21\times 10^{-5}$ 9; $\alpha(\text{O})=5.44\times 10^{-6}$ 8 Mult.: $\alpha(\text{K})_{\text{exp}}=0.017$ 3 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1980Va13); $A_2=0.365$ 8 and $A_4=0.00$ 2 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1980Va13); $P_\gamma=0.67$ 5 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1980Va13); E_γ : from $^{98}\text{Mo}(^{16}\text{O},2n\gamma)$ (2003Wo15).
2945.70	4 ⁺	470		2476.16	2 ⁺				
		794.5 2		2150.87	2 ⁺	E2		0.00219	$\alpha(\text{K})=0.00189$ 3; $\alpha(\text{L})=0.000239$ 4; $\alpha(\text{M})=4.67\times 10^{-5}$ 7 $\alpha(\text{N})=8.74\times 10^{-6}$ 13; $\alpha(\text{O})=7.31\times 10^{-7}$ 11 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(\text{n,n}'\gamma)$ (2005Ku28).
		1688.7 3	100	1256.69	2 ⁺	E2		5.96×10^{-4}	$\text{B}(\text{E2})(\text{W.u.})<1.2$ $\alpha(\text{K})=0.000384$ 6; $\alpha(\text{L})=4.55\times 10^{-5}$ 7; $\alpha(\text{M})=8.86\times 10^{-6}$ 13 $\alpha(\text{N})=1.667\times 10^{-6}$ 24; $\alpha(\text{O})=1.456\times 10^{-7}$ 21; $\alpha(\text{IPF})=0.0001561$ 22 Mult.: $A_2=0.22$ 3 and $A_4=0.5$ 2 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1979Br07); $\alpha(\text{K})=0.001307$ 19; $\alpha(\text{L})=0.0001555$ 22; $\alpha(\text{M})=3.03\times 10^{-5}$ 5 $\alpha(\text{N})=5.68\times 10^{-6}$ 8; $\alpha(\text{O})=4.85\times 10^{-7}$ 7 $\text{B}(\text{E1})(\text{W.u.})=0.00039+16-39$ I_γ : 12 3 in $^{112}\text{Sn}(\text{n,n}'\gamma)$ (2005Ku28).
2966.63	2 ⁺	612.4 1	28 [@] 2	2354.21	3 ⁻	E1		1.50×10^{-3}	Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(\text{n,n}'\gamma)$ (2005Ku28).
		1709.9 4	100 [@] 4	1256.69	2 ⁺	M1(+E2)	≤ 0.7	6.36×10^{-4} 12	$\alpha(\text{K})=0.000418$ 11; $\alpha(\text{L})=4.93\times 10^{-5}$ 12; $\alpha(\text{M})=9.60\times 10^{-6}$ 24 $\alpha(\text{N})=1.81\times 10^{-6}$ 5; $\alpha(\text{O})=1.60\times 10^{-7}$ 5; $\alpha(\text{IPF})=0.000157$ 3

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [#]	$\delta^{\ddagger\#c}$	α^b	Comments
2966.63	2 ⁺	2966.6 1	53 [@] 4	0.0	0 ⁺	E2			B(M1)(W.u.)>0.0033?; B(E2)(W.u.)<0.44? I _γ : 37 9 in ¹¹² Sn(n,n'γ) (2005Ku28). Mult.: from γ(θ) in ¹¹² Sn(n,n'γ) (2005Ku28). α(K)=0.0001398 20; α(L)=1.624×10 ⁻⁵ 23; α(M)=3.16×10 ⁻⁶ 5 α(N)=5.95×10 ⁻⁷ 9; α(O)=5.26×10 ⁻⁸ 8; α(IPF)=0.000752 11 B(E2)(W.u.)=0.045 +19-45 I _γ : 100 12 in ¹¹² Sn(n,n'γ) (2005Ku28). Mult.: from γ(θ) in ¹¹² Sn(n,n'γ) (2005Ku28).
2969.31		818.43 6		2150.87	2 ⁺				
		1712.61 6	100	1256.69	2 ⁺				
2986.4	0 ⁺	1729.7 3	100	1256.69	2 ⁺	E2		5.94×10 ⁻⁴	B(E2)(W.u.)<0.67 α(K)=0.000367 6; α(L)=4.34×10 ⁻⁵ 6; α(M)=8.45×10 ⁻⁶ 12 α(N)=1.591×10 ⁻⁶ 23; α(O)=1.391×10 ⁻⁷ 20; α(IPF)=0.0001741 25
3078.53	(2,3) ⁺	557.8 3	12.0 [@] 8	2520.70	4 ⁺				
		831.1 4	8.8 [@] 19	2247.39	4 ⁺				
		927.7 2	97 [@] 3	2150.87	2 ⁺	M1+E2	0.60 +1-2	0.00176 3	α(K)=0.001535 22; α(L)=0.000185 3; α(M)=3.61×10 ⁻⁵ 6 α(N)=6.80×10 ⁻⁶ 10; α(O)=5.94×10 ⁻⁷ 9 B(M1)(W.u.)<0.0076; B(E2)(W.u.)<2.6 I _γ : 100.0 19 in ¹¹² Sn(n,n'γ) (2005Ku28). Mult.,δ: from γ(θ) in ¹¹² Sn(n,n'γ) (2005Ku28).
		1821.8 2	100 [@] 4	1256.69	2 ⁺	M1+E2	-1.3 +3-5	6.11×10 ⁻⁴ 10	α(K)=0.000348 8; α(L)=4.10×10 ⁻⁵ 9; α(M)=7.99×10 ⁻⁶ 17 α(N)=1.51×10 ⁻⁶ 4; α(O)=1.32×10 ⁻⁷ 3; α(IPF)=0.000212 4 B(M1)(W.u.)<0.00067; B(E2)(W.u.)<0.25 I _γ : 88.7 19 in ¹¹² Sn(n,n'γ) (2005Ku28). Mult.,δ: from γ(θ) in ¹¹² Sn(n,n'γ) (2005Ku28).
3092.21	2 ⁺	1836.0 3	100 [@] 3	1256.69	2 ⁺	M1+E2	-1.5 10	6.09×10 ⁻⁴ 20	α(K)=0.000340 21; α(L)=4.01×10 ⁻⁵ 24; α(M)=7.8×10 ⁻⁶ 5 α(N)=1.47×10 ⁻⁶ 9; α(O)=1.29×10 ⁻⁷ 9; α(IPF)=0.000219 7 B(M1)(W.u.)=0.003 4; B(E2)(W.u.)=1.9 +9-10 Mult.,δ: from γ(θ) in ¹¹² Sn(n,n'γ) (2005Ku28).
		3092.1 1	26.2 [@] 19	0.0	0 ⁺	E2		9.54×10 ⁻⁴	α(K)=0.0001303 19; α(L)=1.513×10 ⁻⁵ 22; α(M)=2.94×10 ⁻⁶ 5 α(N)=5.55×10 ⁻⁷ 8; α(O)=4.90×10 ⁻⁸ 7; α(IPF)=0.000805 12 B(E2)(W.u.)=0.052 +12-17 Mult.: from γ(θ) in ¹¹² Sn(n,n'γ) (2005Ku28).

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult.#	α^b	Comments
3113.54	0^+ to 4^+	962.67 14	100	2150.87	2^+			
3133.42	5^-	779.3 2	16.3 12	2354.21	3^-	E2	0.00229	B(E2)(W.u.)<8.6 $\alpha(K)=0.00198$ 3; $\alpha(L)=0.000250$ 4; $\alpha(M)=4.90\times 10^{-5}$ 7 $\alpha(N)=9.18\times 10^{-6}$ 13; $\alpha(O)=7.66\times 10^{-7}$ 11 E_γ : 782 in $^{98}\text{Mo}(^{16}\text{O},2n\gamma)$ (2003Wo15). Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(n,n'\gamma)$ (2005Ku28).
		886.0 1	100.0 12	2247.39	4^+	E1	6.91×10^{-4}	B(E1)(W.u.)<0.00036 $\alpha(K)=0.000603$ 9; $\alpha(L)=7.10\times 10^{-5}$ 10; $\alpha(M)=1.381\times 10^{-5}$ 20 $\alpha(N)=2.60\times 10^{-6}$ 4; $\alpha(O)=2.24\times 10^{-7}$ 4 Mult., δ : from $\gamma(\theta)$ in $^{112}\text{Sn}(n,n'\gamma)$ (2005Ku28).
3141.1		990.2 4	100	2150.87	2^+			
3149.28	4^+	901.8 6	24@ 7	2247.39	4^+	[M1+E2]	0.00197	$\alpha(K)=0.001718$ 25; $\alpha(L)=0.000206$ 3; $\alpha(M)=4.01\times 10^{-5}$ 6 $\alpha(N)=7.57\times 10^{-6}$ 11; $\alpha(O)=6.68\times 10^{-7}$ 10
		1892.2 5	100@ 3	1256.69	2^+	E2	6.03×10^{-4}	B(E2)(W.u.)=1.0 +4-10 $\alpha(K)=0.000310$ 5; $\alpha(L)=3.65\times 10^{-5}$ 6; $\alpha(M)=7.11\times 10^{-6}$ 10 $\alpha(N)=1.340\times 10^{-6}$ 19; $\alpha(O)=1.174\times 10^{-7}$ 17; $\alpha(\text{IPF})=0.000248$ 4 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(n,n'\gamma)$ (2005Ku28).
3248.69	2^+	772.44 24	25.9@ 19	2476.16	2^+	[M1+E2]	0.00282	$\alpha(K)=0.00245$ 4; $\alpha(L)=0.000295$ 5; $\alpha(M)=5.75\times 10^{-5}$ 8 $\alpha(N)=1.084\times 10^{-5}$ 16; $\alpha(O)=9.55\times 10^{-7}$ 14
		894.2 2	27@ 19	2354.21	3^-	[E1]	6.79×10^{-4}	$\alpha(K)=0.000593$ 9; $\alpha(L)=6.97\times 10^{-5}$ 10; $\alpha(M)=1.356\times 10^{-5}$ 19 $\alpha(N)=2.55\times 10^{-6}$ 4; $\alpha(O)=2.20\times 10^{-7}$ 3 B(E1)(W.u.)<5.7 $\times 10^{-5}$
		1097.4 2		2150.87	2^+	[M1+E2]	1.27×10^{-3}	$\alpha(K)=0.001106$ 16; $\alpha(L)=0.0001317$ 19; $\alpha(M)=2.57\times 10^{-5}$ 4 $\alpha(N)=4.84\times 10^{-6}$ 7; $\alpha(O)=4.28\times 10^{-7}$ 6
		1992.25 12	22.9@ 13	1256.69	2^+	M1+E2	6.41×10^{-4}	$\alpha(K)=0.000312$ 5; $\alpha(L)=3.66\times 10^{-5}$ 6; $\alpha(M)=7.13\times 10^{-6}$ 10 $\alpha(N)=1.345\times 10^{-6}$ 19; $\alpha(O)=1.192\times 10^{-7}$ 17; $\alpha(\text{IPF})=0.000284$ 4 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(n,n'\gamma)$ (2005Ku28).
		3248.8 8	100.0 21	0.0	0^+	E2	1.01×10^{-3}	$\alpha(K)=0.0001199$ 17; $\alpha(L)=1.391\times 10^{-5}$ 20; $\alpha(M)=2.70\times 10^{-6}$ 4 $\alpha(N)=5.10\times 10^{-7}$ 8; $\alpha(O)=4.50\times 10^{-8}$ 7; $\alpha(\text{IPF})=0.000871$ 13 B(E2)(W.u.)<0.025 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(n,n'\gamma)$ (2005Ku28).
3272.31	4^+	1121.39 15	27 9	2150.87	2^+	E2	1.00×10^{-3}	B(E2)(W.u.)=7 +4-6 $\alpha(K)=0.000872$ 13; $\alpha(L)=0.0001060$ 15; $\alpha(M)=2.07\times 10^{-5}$ 3 $\alpha(N)=3.89\times 10^{-6}$ 6; $\alpha(O)=3.34\times 10^{-7}$ 5; $\alpha(\text{IPF})=9.93\times 10^{-7}$ 15 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(n,n'\gamma)$ (2005Ku28).
		2016.1 5	100 9	1256.69	2^+	E2	6.24×10^{-4}	B(E2)(W.u.)=1.4 +5-10 $\alpha(K)=0.000276$ 4; $\alpha(L)=3.24\times 10^{-5}$ 5; $\alpha(M)=6.31\times 10^{-6}$ 9 $\alpha(N)=1.189\times 10^{-6}$ 17; $\alpha(O)=1.043\times 10^{-7}$ 15; $\alpha(\text{IPF})=0.000308$ 5 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(n,n'\gamma)$ (2005Ku28).
3283.60	2^+	1036.2 2	100	2247.39	4^+			

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)										
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [#]	$\delta^{\ddagger\#c}$	α^b	$I_{(\gamma+ce)}$	Comments
3286.18	(2) ⁺	2029.4 2	84 5	1256.69	2 ⁺	M1(+E2)	≤0.4	6.45×10 ⁻⁴ 10		$\alpha(\text{K})=0.000298$ 5; $\alpha(\text{L})=3.50\times10^{-5}$ 6; $\alpha(\text{M})=6.82\times10^{-6}$ 11 $\alpha(\text{N})=1.287\times10^{-6}$ 20; $\alpha(\text{O})=1.139\times10^{-7}$ 18; $\alpha(\text{IPF})=0.000303$ 5 B(M1)(W.u.)>0.0047?; B(E2)(W.u.)<0.15? Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28). I_γ : 8 3 in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28).
3288.0	(1,2 ⁺)	3286.2 2	100 3	0.0	0 ⁺					
3338.3	2 ⁺	1097.2 3	100	2190.81	0 ⁺					
3338.3	2 ⁺	2081.6 3	100	1256.69	2 ⁺	M1+E2		6.54×10 ⁻⁴		$\alpha(\text{K})=0.000285$ 4; $\alpha(\text{L})=3.35\times10^{-5}$ 5; $\alpha(\text{M})=6.52\times10^{-6}$ 10 $\alpha(\text{N})=1.229\times10^{-6}$ 18; $\alpha(\text{O})=1.090\times10^{-7}$ 16; $\alpha(\text{IPF})=0.000328$ 5 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28).
3353.1	2 ⁺	2096.4 4	9 3	1256.69	2 ⁺	M1+E2		6.57×10 ⁻⁴		$\alpha(\text{K})=0.000281$ 4; $\alpha(\text{L})=3.30\times10^{-5}$ 5; $\alpha(\text{M})=6.42\times10^{-6}$ 9 $\alpha(\text{N})=1.212\times10^{-6}$ 17; $\alpha(\text{O})=1.074\times10^{-7}$ 15; $\alpha(\text{IPF})=0.000335$ 5 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28).
		3353.0 5	100 3	0.0	0 ⁺	E2		1.04×10 ⁻³		B(E2)(W.u.)<0.027 $\alpha(\text{K})=0.0001138$ 16; $\alpha(\text{L})=1.319\times10^{-5}$ 19; $\alpha(\text{M})=2.56\times10^{-6}$ 4 $\alpha(\text{N})=4.83\times10^{-7}$ 7; $\alpha(\text{O})=4.27\times10^{-8}$ 6; $\alpha(\text{IPF})=0.000914$ 13 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28).
3354.38	(7) ⁻	427.67& 10	5.8& 3	2926.82	6 ⁺	E1		0.00347		$\alpha(\text{K})=0.00302$ 5; $\alpha(\text{L})=0.000363$ 5; $\alpha(\text{M})=7.07\times10^{-5}$ 10 $\alpha(\text{N})=1.325\times10^{-5}$ 19; $\alpha(\text{O})=1.115\times10^{-6}$ 16 Mult.: $A_2=-0.20$ 2 and $A_4=0.07$ 4 in (1980Va13); $P_\gamma=0.38$ 5 (1980Va13).
		805.11& 7	100& 6	2549.22	6 ⁺	E1		8.38×10 ⁻⁴		$\alpha(\text{K})=0.000731$ 11; $\alpha(\text{L})=8.63\times10^{-5}$ 12; $\alpha(\text{M})=1.678\times10^{-5}$ 24 $\alpha(\text{N})=3.16\times10^{-6}$ 5; $\alpha(\text{O})=2.72\times10^{-7}$ 4 E_γ : 807 1 in $^{113}\text{In}(\text{p},2\text{n}\gamma)$ (1969Ya05). Mult.: $\alpha(\text{K})_{\text{exp}}=0.00070$ 15 in $^{110}\text{Cd}(\alpha,2\text{n}\gamma)$ (1980Va13); $A_2=-0.233$ 5 and $A_4=-0.01$ 1 in $^{110}\text{Cd}(\alpha,2\text{n}\gamma)$ (1980Va13); $P_\gamma=0.37$ 5 in $^{110}\text{Cd}(\alpha,2\text{n}\gamma)$ (1980Va13) and +0.06 3 in $^{100}\text{Mo}(^{20}\text{Ne},\alpha 4\text{n}\gamma)$ (2007Ga45); DCO=0.71 13 in $^{100}\text{Mo}(^{20}\text{Ne},\alpha 4\text{n}\gamma)$ (2007Ga45).
3378.9	0 ⁺ to 4 ⁺	1228.0 3	100	2150.87	2 ⁺					

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult.#	$\delta^{\ddagger\#c}$	α^b	Comments
3384.30	(3) ⁻	467.2 @ 3 2127.3 3	16.1 @ 15 100 @ 6	2917.39 2 ⁺ ,3,4 ⁺ 1256.69 2 ⁺		E1		8.44×10 ⁻⁴	$\alpha(\text{K})=0.0001324$ 19; $\alpha(\text{L})=1.528\times 10^{-5}$ 22; $\alpha(\text{M})=2.97\times 10^{-6}$ 5 $\alpha(\text{N})=5.59\times 10^{-7}$ 8; $\alpha(\text{O})=4.91\times 10^{-8}$ 7; $\alpha(\text{IPF})=0.000693$ 10 B(E1)(W.u.)=0.00014 +5-7 Mult.: from $\gamma(\theta)$ in ¹¹² Sn(n,n'γ) (2005Ku28). $\alpha(\text{K})=0.00107$ 11; $\alpha(\text{L})=0.000130$ 12; $\alpha(\text{M})=2.54\times 10^{-5}$ 23 $\alpha(\text{N})=4.8\times 10^{-6}$ 5; $\alpha(\text{O})=4.1\times 10^{-7}$ 5 B(M1)(W.u.)=0.008 +9-8; B(E2)(W.u.)=20 +9-11
3397.20	2 ⁻ ,3 ⁻	1042.95 11	72.4 17	2354.21 3 ⁻		M1+E2	1.8 12	0.00123 13	
3413.93	6 ⁺	1246.6 3 468.03 & 13	100 17 32 & 2	2150.87 2 ⁺ 2945.70 4 ⁺		E2		0.00893	$\alpha(\text{K})=0.00764$ 11; $\alpha(\text{L})=0.001047$ 15; $\alpha(\text{M})=0.000206$ 3 $\alpha(\text{N})=3.83\times 10^{-5}$ 6; $\alpha(\text{O})=2.98\times 10^{-6}$ 5 B(E2)(W.u.)=1.8×10 ² 10 Mult.: $\alpha(\text{K})\text{exp}=0.007$ 2 in ¹¹⁰ Cd(α,2nγ) (1979Br07); A ₂ =0.32 6 and A ₄ =-0.18 10 in ¹¹⁰ Cd(α,2nγ) (1979Br07); Pγ=0.49 8 in ¹¹⁰ Cd(α,2nγ) (1979Br07);
		630.36 & 12	56 & 2	2783.66 4 ⁺		E2		0.00392	B(E2)(W.u.)=7.E+1 4 $\alpha(\text{K})=0.00337$ 5; $\alpha(\text{L})=0.000439$ 7; $\alpha(\text{M})=8.61\times 10^{-5}$ 12 $\alpha(\text{N})=1.606\times 10^{-5}$ 23; $\alpha(\text{O})=1.310\times 10^{-6}$ 19 Mult.: $\alpha(\text{K})\text{exp}=0.0038$ 8 in ¹¹⁰ Cd(α,2nγ) (1979Br07); A ₂ =0.34 2 and A ₄ =0.71 8 in ¹¹⁰ Cd(α,2nγ) (1979Br07); Pγ=0.71 8 in ¹¹⁰ Cd(α,2nγ) (1979Br07);
		893.2 & 2	38 & 12	2520.70 4 ⁺		E2		1.66×10 ⁻³	B(E2)(W.u.)=9 6 $\alpha(\text{K})=0.001440$ 21; $\alpha(\text{L})=0.000179$ 3; $\alpha(\text{M})=3.50\times 10^{-5}$ 5 $\alpha(\text{N})=6.56\times 10^{-6}$ 10; $\alpha(\text{O})=5.54\times 10^{-7}$ 8
		1166.9 & 3	100 & 10	2247.39 4 ⁺		E2		9.25×10 ⁻⁴	B(E2)(W.u.)=6 3 $\alpha(\text{K})=0.000801$ 12; $\alpha(\text{L})=9.72\times 10^{-5}$ 14; $\alpha(\text{M})=1.90\times 10^{-5}$ 3 $\alpha(\text{N})=3.56\times 10^{-6}$ 5; $\alpha(\text{O})=3.06\times 10^{-7}$ 5; $\alpha(\text{IPF})=3.50\times 10^{-6}$ 6 Mult.: $\alpha(\text{K})\text{exp}=0.0009$ 4 in ¹¹⁰ Cd(α,2nγ) (1979Br07); A ₂ =0.38 7 and A ₄ =-0.12 13 in ¹¹⁰ Cd(α,2nγ) (1979Br07); Pγ=0.8 2 in ¹¹⁰ Cd(α,2nγ) (1979Br07);

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. #	$\delta^{\ddagger\#c}$	α^b	Comments
3417.41	4^+	2160.7 1	100	1256.69	2^+	E2		6.56×10^{-4}	B(E2)(W.u.) < 0.94 $\alpha(K)=0.000243$ 4; $\alpha(L)=2.85 \times 10^{-5}$ 4; $\alpha(M)=5.55 \times 10^{-6}$ 8 $\alpha(N)=1.046 \times 10^{-6}$ 15; $\alpha(O)=9.19 \times 10^{-8}$ 13; $\alpha(\text{IPF})=0.000377$ 6 Mult.: from $\gamma(\theta)$ in $^{112}\text{Sn}(n,n'\gamma)$ (2005Ku28).
3430.65	$(8)^-$	76.3 & 2	100 &	3354.38	$(7)^-$	M1+E2	0.04 3	1.221 22	B(M1)(W.u.)=0.0365 19; B(E2)(W.u.)=8 +12-8 $\alpha(K)=1.053$ 18; $\alpha(L)=0.136$ 4; $\alpha(M)=0.0267$ 9 $\alpha(N)=0.00502$ 15; $\alpha(O)=0.000430$ 8 Mult.: $A_2=-0.15$ 2 (1980Va13); $A_4=-0.01$ 2 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1980Va13).
3433.9	(1^-)	3433.8 ^a 5	100	0.0	0^+	(E1) ^a		1.50×10^{-3}	$\alpha(K)=6.62 \times 10^{-5}$ 10; $\alpha(L)=7.59 \times 10^{-6}$ 11; $\alpha(M)=1.473 \times 10^{-6}$ 21 $\alpha(N)=2.78 \times 10^{-7}$ 4; $\alpha(O)=2.45 \times 10^{-8}$ 4; $\alpha(\text{IPF})=0.001424$ 20 B(E1)(W.u.)=0.0038 +20-22
3456.31	$2^+, 3^+$	700.3 @ 6 2199.6 @ 2	22 @ 5 100 @ 6	2756.02 3^+ 1256.69 2^+		M1+E2	2.8 10	6.67×10^{-4}	$\alpha(K)=0.000238$ 5; $\alpha(L)=2.79 \times 10^{-5}$ 5; $\alpha(M)=5.42 \times 10^{-6}$ 10 $\alpha(N)=1.022 \times 10^{-6}$ 18; $\alpha(O)=8.99 \times 10^{-8}$ 17; $\alpha(\text{IPF})=0.000395$ 6 B(M1)(W.u.) < 0.00045; B(E2)(W.u.) < 0.38 Mult., δ : from $^{112}\text{Sn}(n,n'\gamma)$ (2005Ku28).
3471.7	4^+	951.0 3	100	2520.70 4^+		[M1]		1.75×10^{-3}	$\alpha(K)=0.001524$ 22; $\alpha(L)=0.000182$ 3; $\alpha(M)=3.55 \times 10^{-5}$ 5 $\alpha(N)=6.70 \times 10^{-6}$ 10; $\alpha(O)=5.91 \times 10^{-7}$ 9 B(M1)(W.u.) < 0.11
3494.00	2^+ to 6^+	1246.6 2	100	2247.39 4^+					
3499.21	5^-	979.3 2	54 5	2520.70 4^+		[E1]		5.69×10^{-4}	B(E1)(W.u.)=0.0027 +14-27 $\alpha(K)=0.000497$ 7; $\alpha(L)=5.83 \times 10^{-5}$ 9; $\alpha(M)=1.134 \times 10^{-5}$ 16 $\alpha(N)=2.13 \times 10^{-6}$ 3; $\alpha(O)=1.85 \times 10^{-7}$ 3
		1144.2 2	100 5	2354.21 3^-		[E2]		9.63×10^{-4}	B(E2)(W.u.)=1.5 $\times 10^2$ +8-15 $\alpha(K)=0.000835$ 12; $\alpha(L)=0.0001014$ 15; $\alpha(M)=1.98 \times 10^{-5}$ 3 $\alpha(N)=3.72 \times 10^{-6}$ 6; $\alpha(O)=3.20 \times 10^{-7}$ 5; $\alpha(\text{IPF})=1.96 \times 10^{-6}$ 3
3520.45	1 to 4^+	1166.3 2 1369.0 6		2354.21 3^- 2150.87 2^+					
3524.54	2^+	431.9 @ 6	9.2 @ 14	3092.21 2^+		[M1]		0.01136	$\alpha(K)=0.00987$ 15; $\alpha(L)=0.001208$ 18; $\alpha(M)=0.000236$ 4 $\alpha(N)=4.45 \times 10^{-5}$ 7; $\alpha(O)=3.90 \times 10^{-6}$ 6 B(M1)(W.u.) < 0.16
		1277.7 @ 5	22 @ 8	2247.39 4^+		E2		7.82×10^{-4}	$\alpha(K)=0.000664$ 10; $\alpha(L)=8.00 \times 10^{-5}$ 12; $\alpha(M)=1.560 \times 10^{-5}$ 22

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)									
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult. #	$\delta^{\ddagger\#c}$	α^b	Comments
3524.54	2 ⁺	2267.80 @ 20	100 @ 8	1256.69	2 ⁺	M1(+E2)	≥ -0.5	6.88×10 ⁻⁴ 11	$\alpha(\text{N})=2.93\times 10^{-6}$ 5; $\alpha(\text{O})=2.53\times 10^{-7}$ 4; $\alpha(\text{IPF})=1.89\times 10^{-5}$ 3 B(E2)(W.u.)<7.2 Mult.: From $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ in 2005Ku28. $\alpha(\text{K})=0.000230$ 8; $\alpha(\text{L})=2.69\times 10^{-5}$ 9; $\alpha(\text{M})=5.24\times 10^{-6}$ 18 $\alpha(\text{N})=9.9\times 10^{-7}$ 4; $\alpha(\text{O})=8.7\times 10^{-8}$ 4; $\alpha(\text{IPF})=0.000425$ 7 B(M1)(W.u.)<0.0096? Mult., δ : From $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ in 2005Ku28. $\alpha(\text{K})=0.0001048$ 15; $\alpha(\text{L})=1.213\times 10^{-5}$ 17; $\alpha(\text{M})=2.36\times 10^{-6}$ 4 $\alpha(\text{N})=4.45\times 10^{-7}$ 7; $\alpha(\text{O})=3.93\times 10^{-8}$ 6; $\alpha(\text{IPF})=0.000981$ 14
		3524.2 10		0.0	0 ⁺	E2		1.10×10 ⁻³	
3530.15	2 ⁺ ,3,4 ⁺	380.8 2 1009.4 @ 4 1282.4 @ 4 1379.6 @ 2	84 @ 19 65 @ 13 100 @ 5	3149.28 4 ⁺ 2520.70 4 ⁺ 2247.39 4 ⁺ 2150.87 2 ⁺					
3553.7	(3) ⁻	2297.0 3	100	1256.69	2 ⁺	[E1]		9.40×10 ⁻⁴	B(E1)(W.u.)=0.00014 +5-10 $\alpha(\text{K})=0.0001179$ 17; $\alpha(\text{L})=1.359\times 10^{-5}$ 19; $\alpha(\text{M})=2.64\times 10^{-6}$ 4 $\alpha(\text{N})=4.97\times 10^{-7}$ 7; $\alpha(\text{O})=4.37\times 10^{-8}$ 7; $\alpha(\text{IPF})=0.000806$ 12
3557.29		1036.1 4 1203.1 1	16.3 23 100.0 23	2520.70 4 ⁺ 2354.21 3 ⁻					
3604.90		1357.5 1	100	2247.39 4 ⁺					
3610.97		1460.1 1 2354.1 5	100	2150.87 2 ⁺ 1256.69 2 ⁺					
3631.03		552.5 2	100	3078.53 (2,3) ⁺					
3654.34	2 ⁺	2397.6 2		1256.69	2 ⁺	M1+E2	0.52 6	7.28×10 ⁻⁴	$\alpha(\text{K})=0.000213$ 3; $\alpha(\text{L})=2.49\times 10^{-5}$ 4; $\alpha(\text{M})=4.84\times 10^{-6}$ 7 $\alpha(\text{N})=9.13\times 10^{-7}$ 13; $\alpha(\text{O})=8.08\times 10^{-8}$ 12; $\alpha(\text{IPF})=0.000485$ 7 $\alpha(\text{K})=9.87\times 10^{-5}$ 14; $\alpha(\text{L})=1.142\times 10^{-5}$ 16; $\alpha(\text{M})=2.22\times 10^{-6}$ 4 $\alpha(\text{N})=4.19\times 10^{-7}$ 6; $\alpha(\text{O})=3.70\times 10^{-8}$ 6; $\alpha(\text{IPF})=0.001032$ 15 Mult.: assigned by the evaluators; M1+E2 with $\delta=0.48$ 6 in $^{112}\text{Sn}(\text{n},\text{n}'\gamma)$ (2005Ku28) is not consistent with the J^π differences.
		3654.3 2		0.0	0 ⁺	E2		1.14×10 ⁻³	
3693.68	(9) ⁻	263.03 & 7	100 &	3430.65	(8) ⁻	M1+E2	0.13 1	0.0404	B(M1)(W.u.)=0.024 4; B(E2)(W.u.)=4.8 11

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)							
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. #	α^b
Comments							
$\alpha(\text{K})=0.0350$ 5; $\alpha(\text{L})=0.00438$ 7; $\alpha(\text{M})=0.000859$ 13 $\alpha(\text{N})=0.0001615$ 23; $\alpha(\text{O})=1.401\times 10^{-5}$ 20 δ : Also 0.12 16 in $^{100}\text{Mo}(^{20}\text{Ne},\alpha 4n\gamma)$ (2007Ga45).							
3726.22		2469.5 2	100	1256.69	2 ⁺		
3754.4		1507.0 3	100	2247.39	4 ⁺		
3782.9		1632.0 3	100	2150.87	2 ⁺		
3813.78	(2 ⁺ ,3 ⁺ ,4 ⁺)	283.8@ 2	2.59@ 24	3530.15	2 ⁺ ,3,4 ⁺		
		900.8@ 5	17@ 3	2913.07	4 ⁺		
		1029.6@ 7	43@ 3	2783.66	4 ⁺		
		1293.6@ 7	6@ 3	2520.70	4 ⁺		
		1459.5@ 1	27.1@ 12	2354.21	3 ⁻		
4077.59	8 ⁺	1566.4@ 2	100.0@ 24	2247.39	4 ⁺		
		384		3693.68	(9) ⁻		
		663.66& 8	100&	3413.93	6 ⁺	E2	0.00343
E_γ : from $^{98}\text{Mo}(^{16}\text{O},2n\gamma)$ (2003Wo15). $\alpha(\text{K})=0.00296$ 5; $\alpha(\text{L})=0.000381$ 6; $\alpha(\text{M})=7.47\times 10^{-5}$ 11 $\alpha(\text{N})=1.396\times 10^{-5}$ 20; $\alpha(\text{O})=1.146\times 10^{-6}$ 16 $B(\text{E}2)(\text{W.u.})=1.4\times 10^2$ 6 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0027$ 4 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1979Br07); $A_2=0.375$ 9 and $A_4=-0.11$ 2 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1979Br07); $\text{DCO}=0.93$ 9 in $^{100}\text{Mo}(^{20}\text{Ne},\alpha 4n\gamma)$ (2007Ga45); $P_\gamma=0.65$ 6 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1979Br07) and +0.11 4 in $^{100}\text{Mo}(^{20}\text{Ne},\alpha 4n\gamma)$ (2007Ga45);							
4141.3	(1 ⁻)	4141.2 ^a 5	100	0.0	0 ⁺	(E1) ^a	1.78×10^{-3}
4162.3	(1 ⁻)	4162.2 ^a 5	100	0.0	0 ⁺	(E1) ^a	1.78×10^{-3}
4330.4	(1 ⁻)	4330.3 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00184
4582.61	(10) ⁻	1151.94& 11	100&	3430.65	(8) ⁻	E2	9.49×10^{-4}
$\alpha(\text{K})=5.14\times 10^{-5}$ 8; $\alpha(\text{L})=5.88\times 10^{-6}$ 9; $\alpha(\text{M})=1.141\times 10^{-6}$ 16 $\alpha(\text{N})=2.15\times 10^{-7}$ 3; $\alpha(\text{O})=1.90\times 10^{-8}$ 3; $\alpha(\text{IPF})=0.001717$ 24 $\alpha(\text{K})=5.11\times 10^{-5}$ 8; $\alpha(\text{L})=5.84\times 10^{-6}$ 9; $\alpha(\text{M})=1.134\times 10^{-6}$ 16 $\alpha(\text{N})=2.14\times 10^{-7}$ 3; $\alpha(\text{O})=1.89\times 10^{-8}$ 3; $\alpha(\text{IPF})=0.001725$ 25 $\alpha(\text{K})=4.85\times 10^{-5}$ 7; $\alpha(\text{L})=5.54\times 10^{-6}$ 8; $\alpha(\text{M})=1.075\times 10^{-6}$ 15 $\alpha(\text{N})=2.03\times 10^{-7}$ 3; $\alpha(\text{O})=1.79\times 10^{-8}$ 3; $\alpha(\text{IPF})=0.00179$ 3 $\alpha(\text{K})=0.000824$ 12; $\alpha(\text{L})=9.99\times 10^{-5}$ 14; $\alpha(\text{M})=1.95\times 10^{-5}$ 3 $\alpha(\text{N})=3.66\times 10^{-6}$ 6; $\alpha(\text{O})=3.15\times 10^{-7}$ 5; $\alpha(\text{IPF})=2.42\times 10^{-6}$ 4 $B(\text{E}2)(\text{W.u.})=36$ 11 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0007$ 3 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1980Va13); $A_2=0.344$ 15 and $A_4=-0.14$ 3 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1980Va13); $P_\gamma=0.72$ 8 in $^{110}\text{Cd}(\alpha,2n\gamma)$ (1980Va13);							
4681.0	(10 ⁺)	603.1 5	25 11	4077.59	8 ⁺		
		987.4 3	100 22	3693.68	(9) ⁻		
4726.5	(1 ⁻)	4726.4 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00197
4819.37	10 ⁺	741.8& 2	100&	4077.59	8 ⁺	E2	0.00259
E_γ, I_γ : from $^{100}\text{Mo}(^{20}\text{Ne},\alpha 4n\gamma)$ (2007Ga45). E_γ, I_γ : from $^{100}\text{Mo}(^{20}\text{Ne},\alpha 4n\gamma)$ (2007Ga45). $\alpha(\text{K})=4.32\times 10^{-5}$ 6; $\alpha(\text{L})=4.94\times 10^{-6}$ 7; $\alpha(\text{M})=9.59\times 10^{-7}$ 14 $\alpha(\text{N})=1.81\times 10^{-7}$ 3; $\alpha(\text{O})=1.596\times 10^{-8}$ 23; $\alpha(\text{IPF})=0.00193$ 3 $B(\text{E}2)(\text{W.u.})=6.E+2$ 3 $\alpha(\text{K})=0.00224$ 4; $\alpha(\text{L})=0.000284$ 4; $\alpha(\text{M})=5.56\times 10^{-5}$ 8 $\alpha(\text{N})=1.041\times 10^{-5}$ 15; $\alpha(\text{O})=8.65\times 10^{-7}$ 13							

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. #	α^b	Comments
								Mult.: $\alpha(\text{K})_{\text{exp}}=0.0025$ 4 in ¹¹⁰ Cd($\alpha,2n\gamma$) (1979Br07); $A_2=0.366$ 12 and $A_4=-0.11$ 2 in ¹¹⁰ Cd($\alpha,2n\gamma$) (1979Br07); DCO=1.04 10 for 741.7 γ +744.6 γ in ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45); $P\gamma=0.53$ 5 in ¹¹⁰ Cd($\alpha,2n\gamma$) (1979Br07) and +0.25 11 in ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45).
4837.4	(1 ⁻)	4837.3 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00201	$\alpha(\text{K})=4.20\times 10^{-5}$ 6; $\alpha(\text{L})=4.79\times 10^{-6}$ 7; $\alpha(\text{M})=9.30\times 10^{-7}$ 13 $\alpha(\text{N})=1.754\times 10^{-7}$ 25; $\alpha(\text{O})=1.549\times 10^{-8}$ 22; $\alpha(\text{IPF})=0.00196$ 3
4928.9	(11 ⁻)	345.9 8	<8.3	4582.61	(10 ⁻)	M1+E2	0.0198	$\alpha(\text{K})=0.0172$ 3; $\alpha(\text{L})=0.00212$ 4; $\alpha(\text{M})=0.000415$ 7 $\alpha(\text{N})=7.82\times 10^{-5}$ 12; $\alpha(\text{O})=6.84\times 10^{-6}$ 11 $E_\gamma, I_\gamma, \text{Mult.}$: from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45).
		1235.3 ^{&} 3	100 ^{&} 25	3693.68	(9 ⁻)	E2	8.30 $\times 10^{-4}$	B(E2)(W.u.)>0.28 $\alpha(\text{K})=0.000712$ 10; $\alpha(\text{L})=8.59\times 10^{-5}$ 12; $\alpha(\text{M})=1.676\times 10^{-5}$ 24 $\alpha(\text{N})=3.15\times 10^{-6}$ 5; $\alpha(\text{O})=2.72\times 10^{-7}$ 4; $\alpha(\text{IPF})=1.182\times 10^{-5}$ 18 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0007$ 2 in ¹¹⁰ Cd($\alpha,2n\gamma$) (1980Va13); $A_2=0.34$ 3 and $A_4=-0.13$ 3 in ¹¹⁰ Cd($\alpha,2n\gamma$) (1980Va13); $P\gamma=0.72$ 8 in ¹¹⁰ Cd($\alpha,2n\gamma$) (1980Va13);
5057.1	(1 ⁻)	5057.0 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00207	$\alpha(\text{K})=3.96\times 10^{-5}$ 6; $\alpha(\text{L})=4.53\times 10^{-6}$ 7; $\alpha(\text{M})=8.78\times 10^{-7}$ 13 $\alpha(\text{N})=1.656\times 10^{-7}$ 24; $\alpha(\text{O})=1.462\times 10^{-8}$ 21; $\alpha(\text{IPF})=0.00203$ 3
5128.2	(1 ⁻)	5128.1 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00209	$\alpha(\text{K})=3.89\times 10^{-5}$ 6; $\alpha(\text{L})=4.45\times 10^{-6}$ 7; $\alpha(\text{M})=8.62\times 10^{-7}$ 12 $\alpha(\text{N})=1.627\times 10^{-7}$ 23; $\alpha(\text{O})=1.436\times 10^{-8}$ 21; $\alpha(\text{IPF})=0.00205$ 3
5246.2	(1 ⁻)	5246.1 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00213	$\alpha(\text{K})=3.78\times 10^{-5}$ 6; $\alpha(\text{L})=4.32\times 10^{-6}$ 6; $\alpha(\text{M})=8.38\times 10^{-7}$ 12 $\alpha(\text{N})=1.580\times 10^{-7}$ 23; $\alpha(\text{O})=1.395\times 10^{-8}$ 20; $\alpha(\text{IPF})=0.00208$ 3
5480.5	(1 ⁻)	5480.4 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00220	$\alpha(\text{K})=3.58\times 10^{-5}$ 5; $\alpha(\text{L})=4.08\times 10^{-6}$ 6; $\alpha(\text{M})=7.92\times 10^{-7}$ 11 $\alpha(\text{N})=1.494\times 10^{-7}$ 21; $\alpha(\text{O})=1.320\times 10^{-8}$ 19; $\alpha(\text{IPF})=0.00216$ 3
5502.6	(1 ⁻)	5502.5 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00220	$\alpha(\text{K})=3.56\times 10^{-5}$ 5; $\alpha(\text{L})=4.06\times 10^{-6}$ 6; $\alpha(\text{M})=7.88\times 10^{-7}$ 11 $\alpha(\text{N})=1.487\times 10^{-7}$ 21; $\alpha(\text{O})=1.313\times 10^{-8}$ 19; $\alpha(\text{IPF})=0.00216$ 3
5564.3	12 ⁺	745.0 ^{&} 2	100 ^{&} 19	4819.37	10 ⁺	E2	0.00256	B(E2)(W.u.)=8.E+1 3 $\alpha(\text{K})=0.00221$ 4; $\alpha(\text{L})=0.000281$ 4; $\alpha(\text{M})=5.50\times 10^{-5}$ 8 $\alpha(\text{N})=1.029\times 10^{-5}$ 15; $\alpha(\text{O})=8.56\times 10^{-7}$ 12 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0024$ 6 in ¹¹⁰ Cd($\alpha,2n\gamma$) (1979Br07); $A_2=0.27$ 4 and $A_4=-0.05$ 6 in ¹¹⁰ Cd($\alpha,2n\gamma$) (1979Br07); DCO=1.04 10 for 741.7+744.6 in ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45); $P\gamma=0.61$ 12 in ¹¹⁰ Cd($\alpha,2n\gamma$) (1979Br07) and +0.27 11 in ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45).
		883.2 3	40 11	4681.0	(10 ⁺)	[E2]	1.70 $\times 10^{-3}$	$\alpha(\text{K})=0.001478$ 21; $\alpha(\text{L})=0.000184$ 3; $\alpha(\text{M})=3.60\times 10^{-5}$ 5 $\alpha(\text{N})=6.74\times 10^{-6}$ 10; $\alpha(\text{O})=5.69\times 10^{-7}$ 8 B(E2)(W.u.)=14 6 E_γ, I_γ : from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45).
5593.7	(1 ⁻)	5593.6 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00223	$\alpha(\text{K})=3.49\times 10^{-5}$ 5; $\alpha(\text{L})=3.98\times 10^{-6}$ 6; $\alpha(\text{M})=7.72\times 10^{-7}$ 11 $\alpha(\text{N})=1.456\times 10^{-7}$ 21; $\alpha(\text{O})=1.286\times 10^{-8}$ 18; $\alpha(\text{IPF})=0.00219$ 3

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [#]	α^b	Comments	
5617.6	(1 ⁻)	5617.4 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00223	$\alpha(\text{K})=3.47\times 10^{-5}$ 5; $\alpha(\text{L})=3.96\times 10^{-6}$ 6; $\alpha(\text{M})=7.68\times 10^{-7}$ 11 $\alpha(\text{N})=1.448\times 10^{-7}$ 21; $\alpha(\text{O})=1.279\times 10^{-8}$ 18; $\alpha(\text{IPF})=0.00219$ 3	
5649.1	(1 ⁻)	5648.9 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00224	$\alpha(\text{K})=3.45\times 10^{-5}$ 5; $\alpha(\text{L})=3.93\times 10^{-6}$ 6; $\alpha(\text{M})=7.62\times 10^{-7}$ 11 $\alpha(\text{N})=1.438\times 10^{-7}$ 21; $\alpha(\text{O})=1.270\times 10^{-8}$ 18; $\alpha(\text{IPF})=0.00220$ 3	
5666.4	(1 ⁻)	5666.2 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00225	$\alpha(\text{K})=3.43\times 10^{-5}$ 5; $\alpha(\text{L})=3.91\times 10^{-6}$ 6; $\alpha(\text{M})=7.59\times 10^{-7}$ 11 $\alpha(\text{N})=1.432\times 10^{-7}$ 20; $\alpha(\text{O})=1.265\times 10^{-8}$ 18; $\alpha(\text{IPF})=0.00221$ 3	
5684.59	12 ⁺	865.21 ^{&} 9	100 ^{&}	4819.37	10 ⁺	E2	0.00179	$\alpha(\text{K})=0.001550$ 22; $\alpha(\text{L})=0.000193$ 3; $\alpha(\text{M})=3.78\times 10^{-5}$ 6 $\alpha(\text{N})=7.08\times 10^{-6}$ 10; $\alpha(\text{O})=5.97\times 10^{-7}$ 9 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0024$ 7 in $^{110}\text{Cd}(\alpha,2\text{n}\gamma)$ (1979Br07); $A_2=0.40$ 6 and $A_4=-0.12$ 10 in $^{110}\text{Cd}(\alpha,2\text{n}\gamma)$ (1979Br07); $\text{P}\gamma=0.7$ 2 in $^{110}\text{Cd}(\alpha,2\text{n}\gamma)$ (1979Br07); E_γ : from $^{100}\text{Mo}(^{16}\text{O},4\text{n}\gamma)$ (1988Ha20).	
5699.9	(1 ⁻)	1004 5699.7 ^a 5	100	4681.0	(10 ⁺) 0.0	0 ⁺	(E1) ^a	0.00225	$\alpha(\text{K})=3.41\times 10^{-5}$ 5; $\alpha(\text{L})=3.89\times 10^{-6}$ 6; $\alpha(\text{M})=7.54\times 10^{-7}$ 11 $\alpha(\text{N})=1.422\times 10^{-7}$ 20; $\alpha(\text{O})=1.256\times 10^{-8}$ 18; $\alpha(\text{IPF})=0.00221$ 4
5748.6	(1 ⁻)	5748.4 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00226	$\alpha(\text{K})=3.37\times 10^{-5}$ 5; $\alpha(\text{L})=3.84\times 10^{-6}$ 6; $\alpha(\text{M})=7.46\times 10^{-7}$ 11 $\alpha(\text{N})=1.407\times 10^{-7}$ 20; $\alpha(\text{O})=1.243\times 10^{-8}$ 18; $\alpha(\text{IPF})=0.00223$ 4	
5812.7	(1 ⁻)	5812.5 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00228	$\alpha(\text{K})=3.32\times 10^{-5}$ 5; $\alpha(\text{L})=3.79\times 10^{-6}$ 6; $\alpha(\text{M})=7.35\times 10^{-7}$ 11 $\alpha(\text{N})=1.387\times 10^{-7}$ 20; $\alpha(\text{O})=1.225\times 10^{-8}$ 18; $\alpha(\text{IPF})=0.00224$ 4	
5860.7	(1 ⁻)	5860.5 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00230	$\alpha(\text{K})=3.29\times 10^{-5}$ 5; $\alpha(\text{L})=3.75\times 10^{-6}$ 6; $\alpha(\text{M})=7.28\times 10^{-7}$ 11 $\alpha(\text{N})=1.373\times 10^{-7}$ 20; $\alpha(\text{O})=1.213\times 10^{-8}$ 17; $\alpha(\text{IPF})=0.00226$ 4	
5884.0	(1 ⁻)	5883.8 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00230	$\alpha(\text{K})=3.27\times 10^{-5}$ 5; $\alpha(\text{L})=3.73\times 10^{-6}$ 6; $\alpha(\text{M})=7.24\times 10^{-7}$ 11 $\alpha(\text{N})=1.366\times 10^{-7}$ 20; $\alpha(\text{O})=1.207\times 10^{-8}$ 17; $\alpha(\text{IPF})=0.00226$ 4	
5924.1	(1 ⁻)	5923.9 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00231	$\alpha(\text{K})=3.25\times 10^{-5}$ 5; $\alpha(\text{L})=3.70\times 10^{-6}$ 6; $\alpha(\text{M})=7.18\times 10^{-7}$ 10 $\alpha(\text{N})=1.354\times 10^{-7}$ 19; $\alpha(\text{O})=1.197\times 10^{-8}$ 17; $\alpha(\text{IPF})=0.00228$ 4	
5976.6	(1 ⁻)	5976.4 ^a 5	100	0.0	0 ⁺	(E1) ^a	0.00233	$\alpha(\text{K})=3.21\times 10^{-5}$ 5; $\alpha(\text{L})=3.66\times 10^{-6}$ 6; $\alpha(\text{M})=7.10\times 10^{-7}$ 10 $\alpha(\text{N})=1.340\times 10^{-7}$ 19; $\alpha(\text{O})=1.184\times 10^{-8}$ 17; $\alpha(\text{IPF})=0.00229$ 4	
6005.0	(1 ⁻)	6004.8 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6059.8	(1 ⁻)	6059.6 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6080.9	(1 ⁻)	6080.7 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6096.9	(1 ⁻)	6096.7 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6129.0	(1 ⁻)	6128.8 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6150.4	(1 ⁻)	6150.2 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6168.3	(1 ⁻)	6168.1 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6198.7	(1 ⁻)	6198.5 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6224.3	(1 ⁻)	6224.1 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6246.4	(1 ⁻)	6246.2 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6259.1	(1 ⁻)	6258.9 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6272.6	(1 ⁻)	6272.4 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6313.3	(1 ⁻)	6313.1 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6348.7	(1 ⁻)	6348.5 ^a 10	100	0.0	0 ⁺	(E1) ^a			
6362.9	14 ⁺	678.1 8	<4	5684.59	12 ⁺	[E2]	0.00324	$\alpha(\text{K})=0.00280$ 4; $\alpha(\text{L})=0.000360$ 6; $\alpha(\text{M})=7.05\times 10^{-5}$ 11	

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)							
$E_i(\text{level})$	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult. #	α^b
Comments							
6362.9	14 ⁺	798.6 1	100 16	5564.3	12 ⁺	E2	0.00216
$\alpha(\text{N})=1.318\times 10^{-5}$ 19; $\alpha(\text{O})=1.084\times 10^{-6}$ 16 B(E2)(W.u.)=2.0 +21-20 E_γ, I_γ : from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45). B(E2)(W.u.)=44 15 $\alpha(\text{K})=0.00187$ 3; $\alpha(\text{L})=0.000235$ 4; $\alpha(\text{M})=4.61\times 10^{-5}$ 7 $\alpha(\text{N})=8.63\times 10^{-6}$ 12; $\alpha(\text{O})=7.22\times 10^{-7}$ 11 E_γ, I_γ : from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45). Mult.: DCO=0.99 12 in ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45); Pol _{DCO} =+0.08 3 in ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45).							
6388.1	(1 ⁻)	6387.9 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6398.3	(13 ⁻)	1469.4 4	100	4928.9	(11) ⁻		
6404.1	(1 ⁻)	6403.9 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6428.6	(1 ⁻)	6428.4 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6450.0	(1 ⁻)	6449.8 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6476.3	(1 ⁻)	6476.1 ^a 15	100	0.0	0 ⁺	(E1) ^a	
6520.7	(1 ⁻)	6520.5 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6550.1	(1 ⁻)	6549.9 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6601.0	(1 ⁻)	6600.8 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6679.9	(1 ⁻)	6679.7 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6706.7	(1 ⁻)	6706.5 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6715.0	(1 ⁻)	6714.8 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6731.9	(1 ⁻)	6731.7 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6795.5	(1 ⁻)	6795.3 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6818.7	(1 ⁻)	6818.5 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6824.2	(1 ⁻)	6824.0 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6855.9	(1 ⁻)	6855.7 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6871.2	(1 ⁻)	6871.0 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6941.2	(1 ⁻)	6941.0 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6961.5	(1 ⁻)	6961.3 ^a 10	100	0.0	0 ⁺	(E1) ^a	
6982.7	(1 ⁻)	6982.5 ^a 10	100	0.0	0 ⁺	(E1) ^a	
7009.8	(1 ⁻)	7009.6 ^a 10	100	0.0	0 ⁺	(E1) ^a	
7018.7	(1 ⁻)	7018.5 ^a 10	100	0.0	0 ⁺	(E1) ^a	
7025.8	(1 ⁻)	7025.6 ^a 10	100	0.0	0 ⁺	(E1) ^a	
7043.1	(1 ⁻)	7042.9 ^a 10	100	0.0	0 ⁺	(E1) ^a	
7092.8	(1 ⁻)	7092.6 ^a 10	100	0.0	0 ⁺	(E1) ^a	
7167.2	(1 ⁻)	7167.0 ^a 10	100	0.0	0 ⁺	(E1) ^a	
7198.2	(1 ⁻)	7198.0 ^a 10	100	0.0	0 ⁺	(E1) ^a	
7207.1	(15 ⁻)	808.8 3	100	6398.3	(13 ⁻)		
7208.1	1 ⁻	7207.9 ^a 10	100	0.0	0 ⁺	(E1) ^a	
7214.2	16 ⁺	851.3 1	100	6362.9	14 ⁺	E2	0.00186
B(E2)(W.u.)=72 13 $\alpha(\text{K})=0.001609$ 23; $\alpha(\text{L})=0.000201$ 3; $\alpha(\text{M})=3.93\times 10^{-5}$ 6 $\alpha(\text{N})=7.37\times 10^{-6}$ 11; $\alpha(\text{O})=6.20\times 10^{-7}$ 9							

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ [†]	I_γ [†]	E_f	J_f^π	Mult. [#]	α^b	Comments
E_γ, I_γ : from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45). Mult.: DCO=1.05 13 in ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45); Pol _{DCO} =+0.24 14 in ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45).								
7217.8	(1 ⁻)	7217.6 ^a 11	100	0.0	0 ⁺	(E1) ^a		E_γ : 7229.3 keV 14 in 2008BoZK.
7228.1	(1 ⁻)	7227.8 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7248.4	(1 ⁻)	7248.1 ^a 14	100	0.0	0 ⁺	(E1) ^a		
7311.1	(1 ⁻)	7310.8 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7389.9	(1 ⁻)	7389.6 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7438.6	(1 ⁻)	7438.3 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7444.1	(1 ⁻)	7443.8 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7468.3	(1 ⁻)	7468.0 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7531.3	(1 ⁻)	7531.0 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7537.2	(1 ⁻)	7536.9 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7559.1	(1 ⁻)	7558.8 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7594.5	(1 ⁻)	7594.2 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7615.3	(1 ⁻)	7615.0 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7859.5	(1 ⁻)	7859.2 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7904.7	(1 ⁻)	7904.4 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7936.7	(1 ⁻)	7936.4 ^a 10	100	0.0	0 ⁺	(E1) ^a		
7988.2	(1 ⁻)	7987.9 ^a 10	100	0.0	0 ⁺	(E1) ^a		
8020.7	(1 ⁻)	8020.4 ^a 10	100	0.0	0 ⁺	(E1) ^a		
8051.6	(1 ⁻)	8051.3 ^a 10	100	0.0	0 ⁺	(E1) ^a		
8069.6	(1 ⁻)	8069.3 ^a 10	100	0.0	0 ⁺	(E1) ^a		
8083.0	(17 ⁻)	868.8 4	38 15	7214.2	16 ⁺			E_γ, I_γ : from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45). E_γ, I_γ : from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45). B(E2)(W.u.)=73 +22-18 $\alpha(K)=0.001304$ 19; $\alpha(L)=0.0001613$ 23; $\alpha(M)=3.15 \times 10^{-5}$ 5 $\alpha(N)=5.91 \times 10^{-6}$ 9; $\alpha(O)=5.01 \times 10^{-7}$ 7 E_γ, I_γ : from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45). Mult.: DCO=1.06 19 in ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45); Pol _{DCO} =+0.22 14 in ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45).
		875.9 3	100 30	7207.1	(15 ⁻)			
8147.1	18 ⁺	932.9 2	100	7214.2	16 ⁺	E2	1.50×10 ⁻³	
8194.5	(1 ⁻)	8194.2 ^a 10	100	0.0	0 ⁺	(E1) ^a		
8218.2	(1 ⁻)	8217.9 ^a 10	100	0.0	0 ⁺	(E1) ^a		
8253.6	(1 ⁻)	8253.3 ^a 10	100	0.0	0 ⁺	(E1) ^a		
8448.6	(1 ⁻)	8448.3 ^a 10	100	0.0	0 ⁺	(E1) ^a		
8568.9	(1 ⁻)	8568.5 ^a 10	100	0.0	0 ⁺	(E1) ^a		
8600.4	(1 ⁻)	8600.0 ^a 10	100	0.0	0 ⁺	(E1) ^a		
8750.2	(1 ⁻)	8749.8 ^a 10	100	0.0	0 ⁺	(E1) ^a		
8823.4	(1 ⁻)	8823.0 ^a 10	100	0.0	0 ⁺	(E1) ^a		$E_\gamma, I_\gamma, \text{Mult.}$: from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45).
9045.2	(19 ⁻)	962.2 4	100	8083.0	(17 ⁻)			
9050.5	(1 ⁻)	9050.1 ^a 10	100	0.0	0 ⁺	(E1) ^a		
9095.3	(1 ⁻)	9094.9 ^a 10	100	0.0	0 ⁺	(E1) ^a		
9150.1	(1 ⁻)	9149.7 ^a 10	100	0.0	0 ⁺	(E1) ^a		

Adopted Levels, Gammas (continued)

$\gamma(^{112}\text{Sn})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [#]	α^b	Comments
9186.6	20 ⁺	1039.5 2	100	8147.1	18 ⁺	E2	1.18×10 ⁻³	B(E2)(W.u.)=66 18 $\alpha(\text{K})=0.001026$ 15; $\alpha(\text{L})=0.0001256$ 18; $\alpha(\text{M})=2.45\times 10^{-5}$ 4 $\alpha(\text{N})=4.61\times 10^{-6}$ 7; $\alpha(\text{O})=3.93\times 10^{-7}$ 6 E_γ, I_γ : from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45). Mult.: DCO=1.00 21 in ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45).
9329.8	(1 ⁻)	9329.4 ^a 10	100	0.0	0 ⁺	(E1) ^a		
10076.2	(21 ⁻)	1031.0 10	100	9045.2	(19 ⁻)			E_γ, I_γ : from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45).
10335.7	22 ⁺	1149.1 3	100	9186.6	20 ⁺	E2	9.54×10 ⁻⁴	B(E2)(W.u.)=63 18 $\alpha(\text{K})=0.000828$ 12; $\alpha(\text{L})=0.0001005$ 14; $\alpha(\text{M})=1.96\times 10^{-5}$ 3 $\alpha(\text{N})=3.68\times 10^{-6}$ 6; $\alpha(\text{O})=3.17\times 10^{-7}$ 5; $\alpha(\text{IPF})=2.24\times 10^{-6}$ 4 E_γ, I_γ : from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45). Mult.: DCO=1.13 23 in ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45).
11570.6	(24 ⁺)	1234.9 5	100	10335.7	22 ⁺	[E2]	8.30×10 ⁻⁴	B(E2)(W.u.)>18 $\alpha(\text{K})=0.000712$ 10; $\alpha(\text{L})=8.60\times 10^{-5}$ 12; $\alpha(\text{M})=1.678\times 10^{-5}$ 24 $\alpha(\text{N})=3.15\times 10^{-6}$ 5; $\alpha(\text{O})=2.72\times 10^{-7}$ 4; $\alpha(\text{IPF})=1.176\times 10^{-5}$ 19 E_γ, I_γ : from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45).
12965.1?	(26 ⁺)	1395.0 ^d 10	100	11570.6	(24 ⁺)			E_γ, I_γ : from ¹⁰⁰ Mo(²⁰ Ne, α 4n γ) (2007Ga45).

[†] From ¹¹²Sn(n,n' γ) (2005Ku28), unless otherwise noted.

[‡] From $\gamma(\theta)$ in ¹¹²Sn(n,n' γ) (2005Ku28), unless otherwise noted.

[#] Based on $\alpha(\text{K})_{\text{exp}}$, A₂, A₄ in $\gamma(\theta)$ and γ -linear polarization, unless otherwise noted.

@ From ¹¹²Sb ε decay (1976Wi10,1975WiZX).

& From ¹¹⁰Cd(α ,2n γ) (1980Va13,1979Br07).

^a From ¹¹²Sn(γ , γ').

^b Additional information 1.

^c If no value given it was assumed $\delta=0.00$ for E2/M1, $\delta=1.00$ for E3/M2 and $\delta=0.10$ for the other multipolarities.

^d Placement of transition in the level scheme is uncertain.

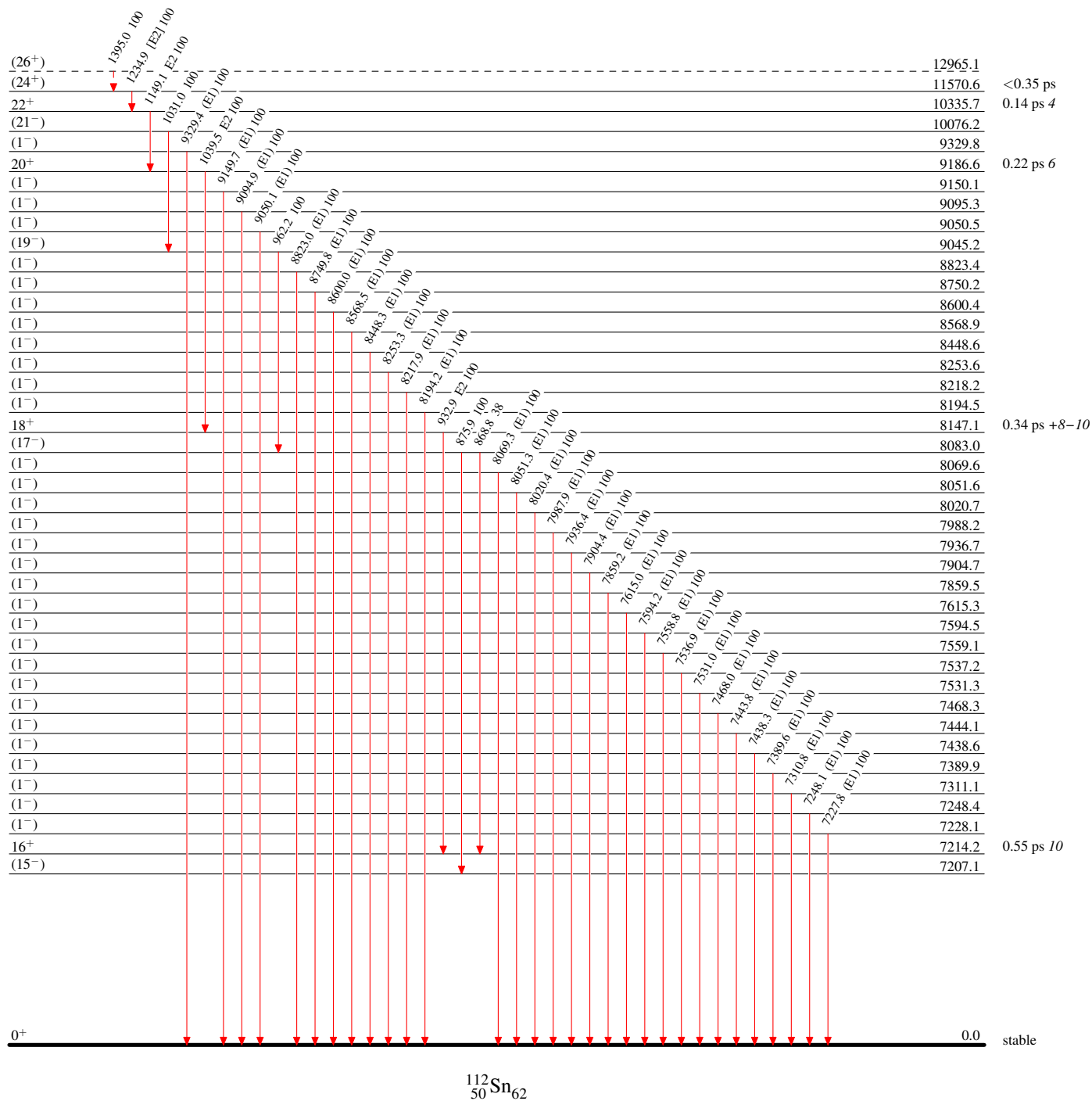
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Type not specified

- ▶ $I_\gamma < 2\% \times I_\gamma^{\max}$
 —————▶ $I_\gamma < 10\% \times I_\gamma^{\max}$
 —————▶ $I_\gamma > 10\% \times I_\gamma^{\max}$
 - - - - -▶ γ Decay (Uncertain)

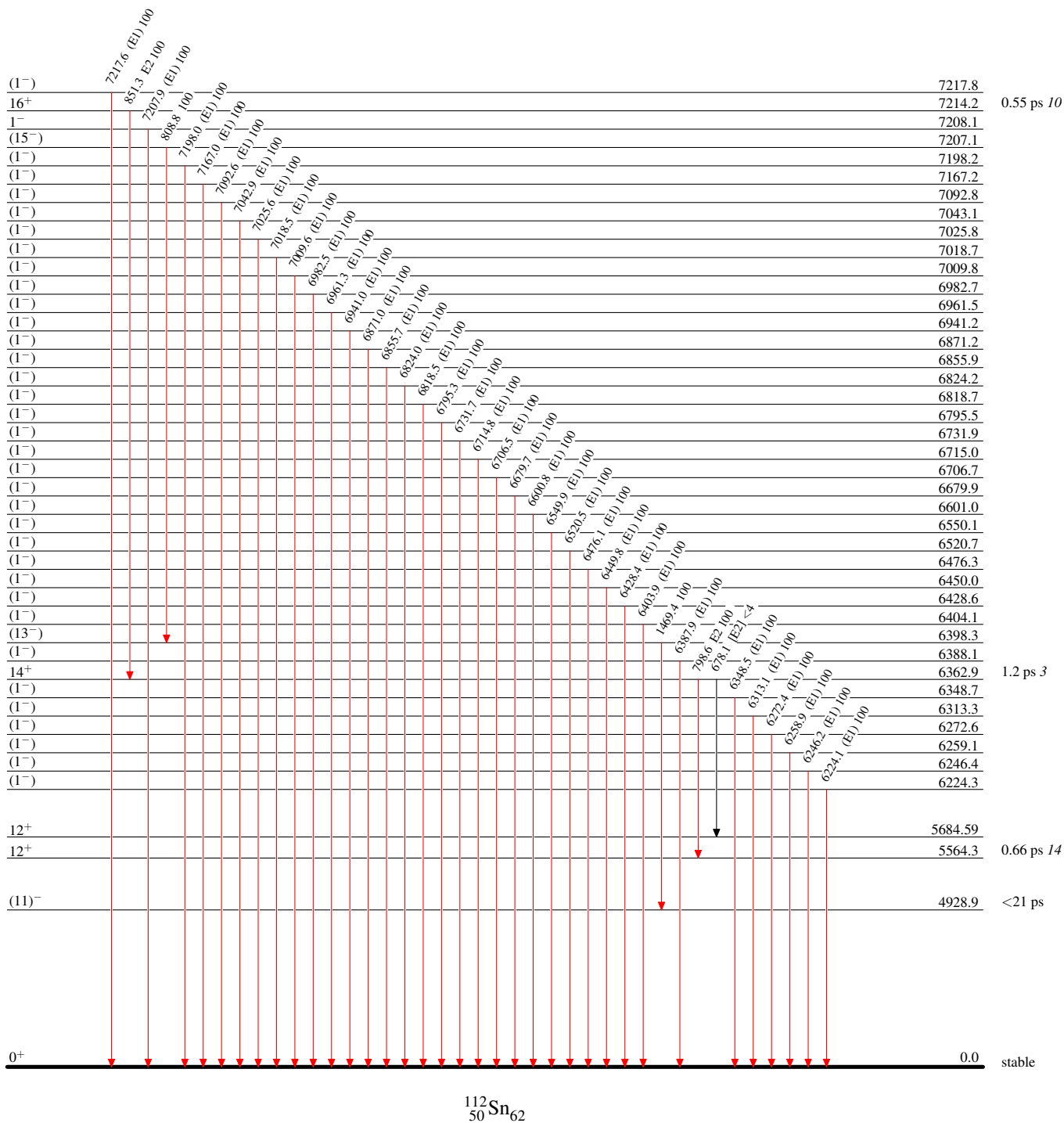


Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Type not specified

Legend

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

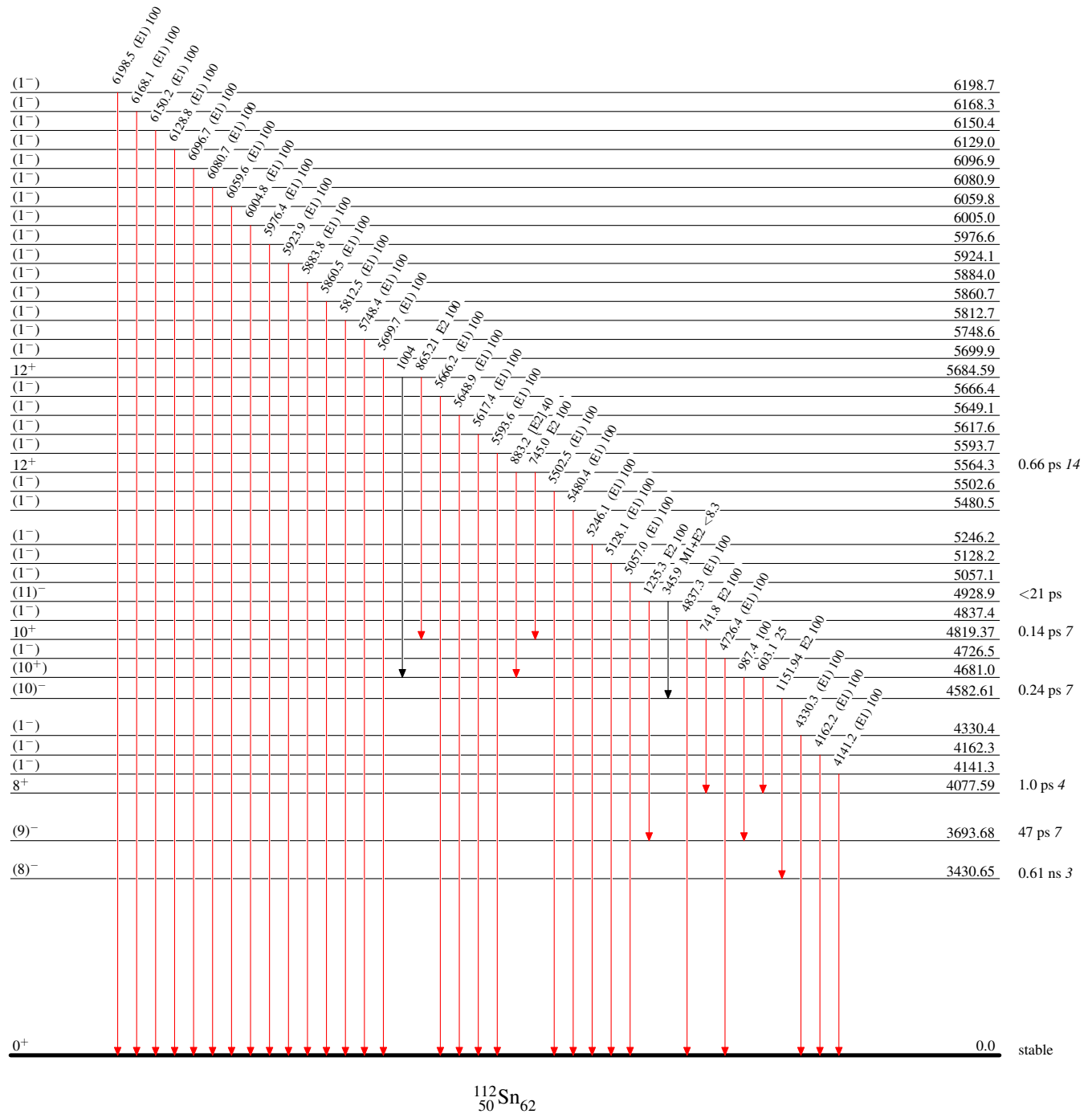


Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Type not specified

Legend

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

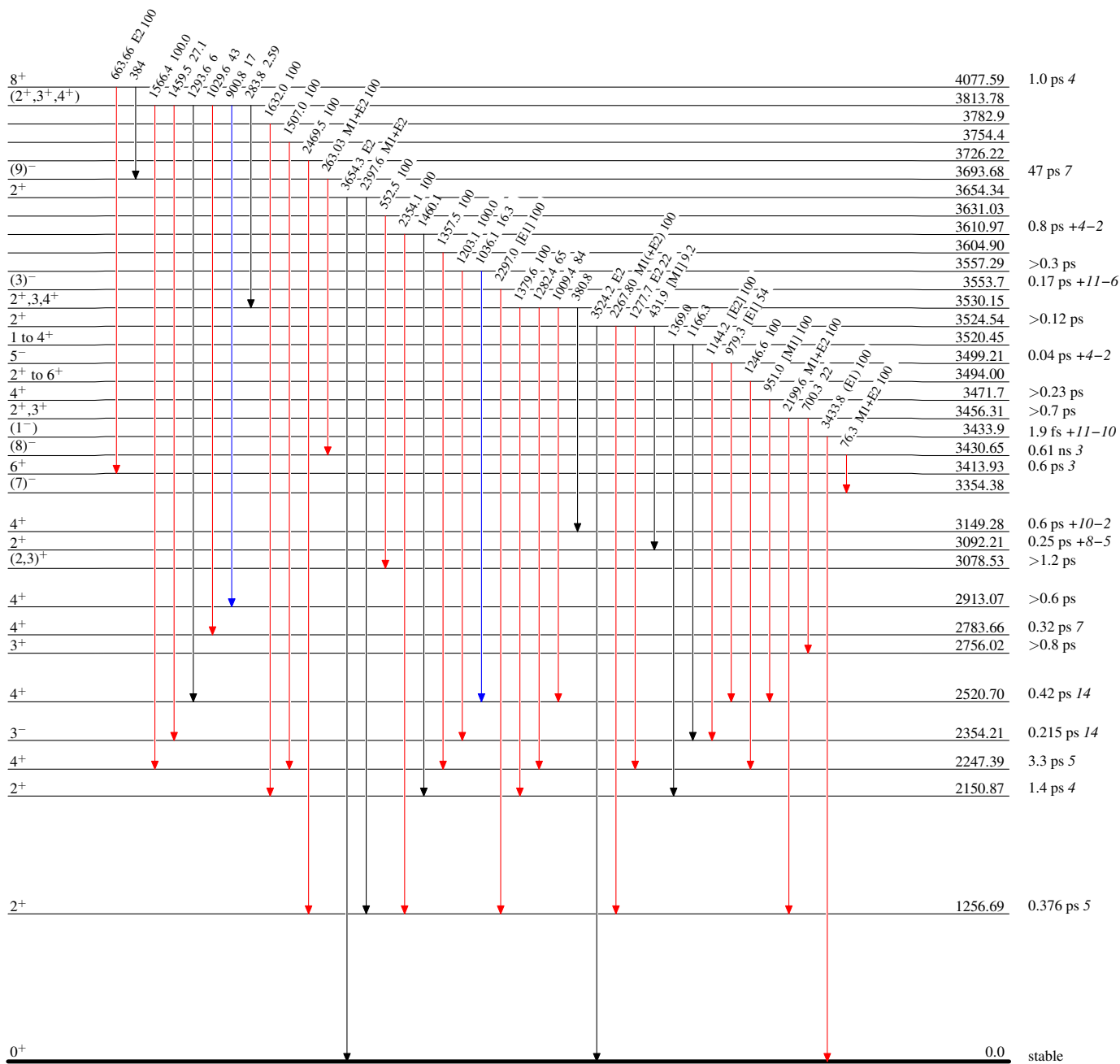


Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Type not specified

Legend

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

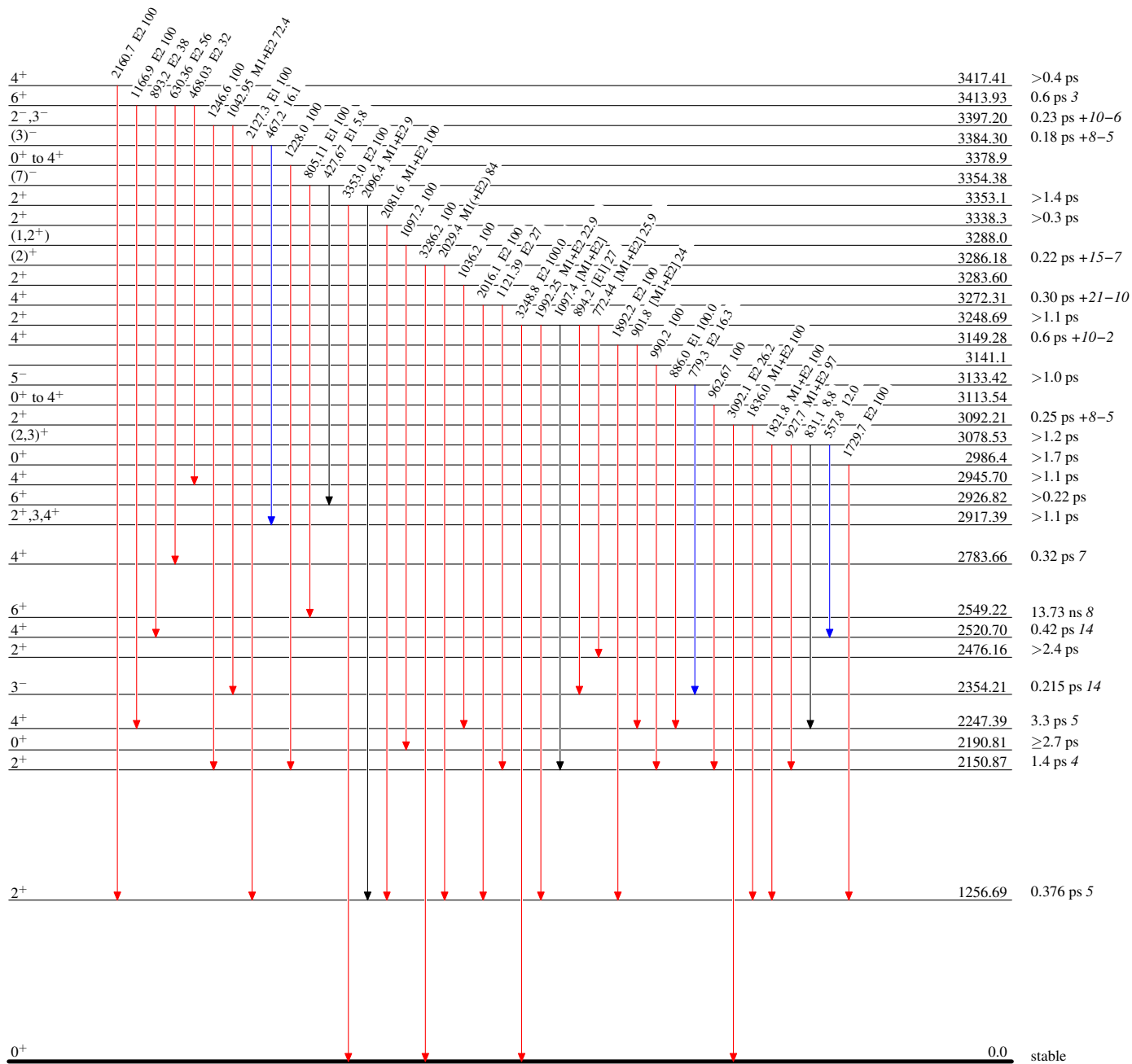
 $^{112}_{50}\text{Sn}_{62}$

Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Type not specified

Legend

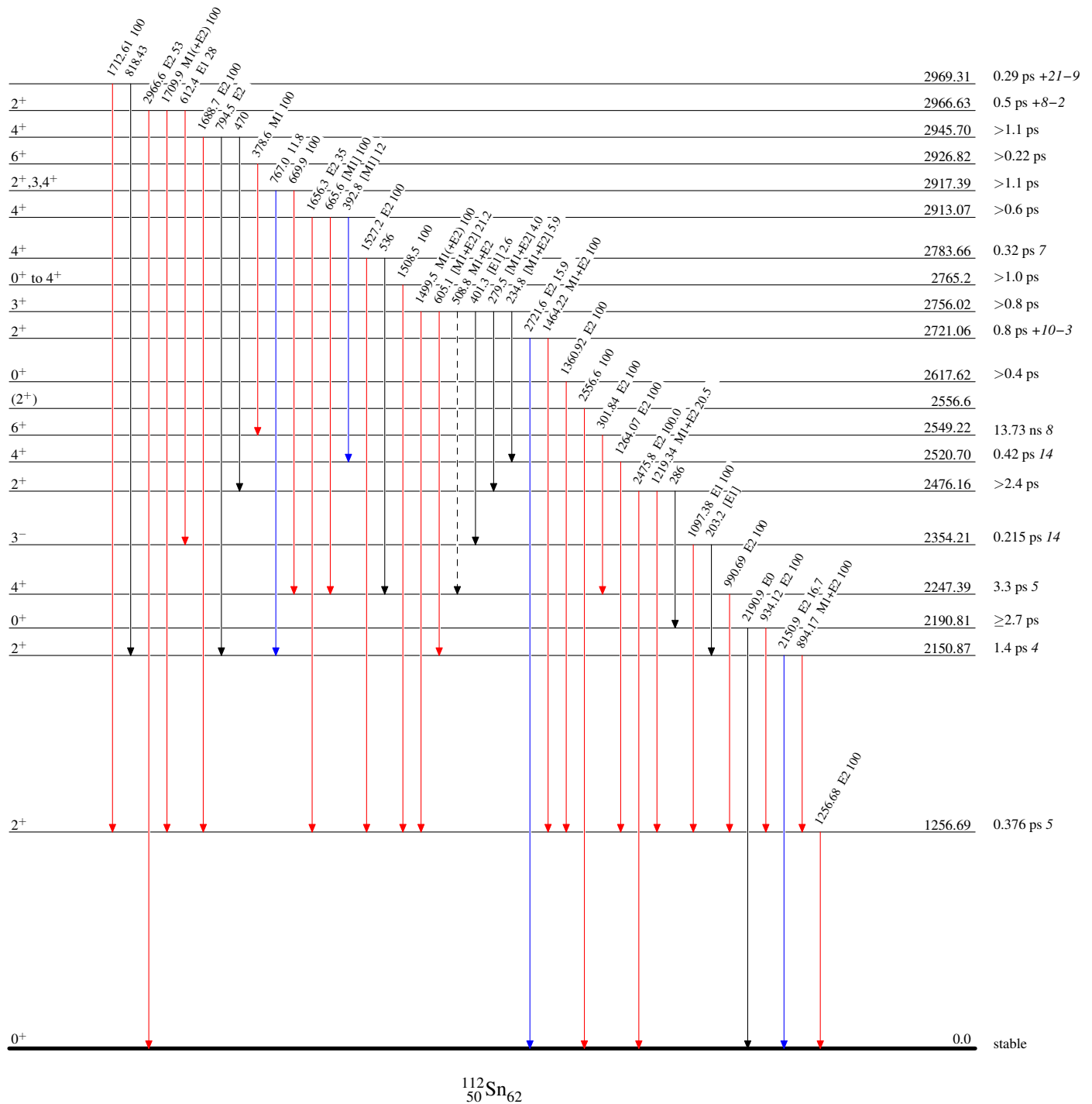
-  $I_\gamma < 2\% \times I_\gamma^{\max}$
 $I_\gamma < 10\% \times I_\gamma^{\max}$
 $I_\gamma > 10\% \times I_\gamma^{\max}$

 $^{112}_{50}\text{Sn}_{62}$

Adopted Levels, Gammas**Legend****Level Scheme (continued)**

Intensities: Type not specified

- ▶ $I_\gamma < 2\% \times I_\gamma^{\max}$
 —————▶ $I_\gamma < 10\% \times I_\gamma^{\max}$
 —————▶ $I_\gamma > 10\% \times I_\gamma^{\max}$
 - - - - -▶ γ Decay (Uncertain)



Adopted Levels, Gammas

Band(A): Probable member
of a $\Delta J=2$ band on the
5564.3 ($J^\pi=12^+$) state;
configuration= π [
 $g_{9/2}^{-2}g_{7/2}^2] \otimes \nu h_{11/2}^2$

(26⁺) 12965.1

1395

(24⁺) 11570.6

1235

22⁺ 10335.7

1149

20⁺ 9186.6

1040

18⁺ 8147.1

933

16⁺ 7214.2

851

14⁺ 6362.9

799

12⁺ 5564.3

Band(B): Probable member
of a $\Delta J=2$ band on the
6398.3 ($J^\pi=13^-$) state;
configuration= π [
 $g_{9/2}^{-1}h_{11/2}] \otimes \nu h_{11/2}^2$

(21⁻) 10076.2

1031

(19⁻) 9045.2

962

(17⁻) 8083.0

876

(15⁻) 7207.1

809

(13⁻) 6398.3

$^{112}_{50}\text{Sn}_{62}$