

Adopted Levels, Gammas

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	G. Gürdal, E. A. McCutchan	NDS 136, 1 (2016)	1-Jul-2016

Q(β^-)=-654.6 16; S(n)=9218.4 21; S(p)=11117.5 24; Q(α)=-5983.3 24 2012Wa38
 S(2n)=15700.5 21; S(2p)=20679 4 (2012Wa38).
 α : Additional information 1.

⁷⁰Zn Levels

Cross Reference (XREF) Flags

A	⁷⁰ Cu β^- decay (44.5 s)	G	⁷⁰ Zn(p,p' γ)	M	²⁰⁸ Pb(⁶⁴ Ni,X γ)
B	⁷⁰ Cu β^- decay (33 s)	H	⁷⁰ Zn(α,α')	N	²³⁸ U(⁷⁶ Ge,X γ)
C	⁷⁰ Cu β^- decay (6.6 s)	I	⁷⁰ Zn(n,n' γ)	O	⁷⁰ Zn(d,d')
D	⁷⁰ Ga ϵ decay	J	⁷⁰ Zn(e,e')	P	⁷⁰ Zn(³ He, ³ He')
E	⁶⁸ Zn(t,p)	K	Coulomb excitation	Q	⁷³ Ge(n, α)
F	⁷⁰ Zn(p,p'),(pol p,p')	L	⁷¹ Ga(d, ³ He)		

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
0.0 [‡]	0 ⁺	≥3.8×10 ¹⁸ y	ABCDEFGHIJKLMNOQ	%2 β^- =? T _{1/2} : from 2011Be39 for 2 ν 2 β^- decay; also determined T _{1/2} ≥3.2×10 ¹⁹ for 0 ν 2 β^- decay. Others: ≥2.3×10 ¹⁷ for 2 ν 2 β^- decay and ≥1.8×10 ¹⁹ for 0 ν 2 β^- decay (2010Be41, 2010BeZO, 2009Be27, earlier results by same group as 2011Be39), ≥2.2×10 ¹⁷ (2007B115, 2006Zu02), ≥1.3×10 ¹⁶ for 2 ν 2 β^- decay and ≥0.7×10 ¹⁸ for 0 ν 2 β^- decay (2005Da47), ≥1.3×10 ¹⁶ (2003Ki08), >4.8×10 ¹⁴ y (1952Fr23).
884.92 [‡] 8	2 ⁺	3.65 ps 21	ABC EFGHIJKLMNOQ	Q=-0.233 22 (1976Ne06); μ =+0.76 4 (2009Mu06) β_2 =0.20 (1993Mo15) μ : from transient field technique in Coulomb Excitation. Others: +0.76 8 (2002Ke02), 0.82 20 (1979BrZP), 0.60 18 (1977HaZW), all from transient field technique in Coulomb Excitation, and 0.60 14 (1979Fa06) from IMPAC. T _{1/2} : weighted average of 3.67 ps 21 from DSAM and 3.60 ps 35 from RDDS, both in Coulomb Excitation. Others: 3.7 ps 12 from RDDS in ²³⁸ U(⁷⁶ Ge,X γ), 2.5 ps 2 from B(E2)=0.205 19 in (e,e'), 3.3 ps 3 from B(E2)=0.160 14 in Coulomb Excitation. J ^π : L(t,p)=2. Q: from (e,e'); extracted using anharmonic-vibrator model and is model dependent. β_2 : from (pol p,p'). Other: 0.220 from (α,α'). T _{1/2} : from (p,p' γ). J ^π : L(t,p)=0.
1070.76 9	0 ⁺	3.90 ns 20	C E G I KL	μ =+0.94 44 (2009Mu06) XREF: E(1767)F(1764). J ^π : L(p,p')=2, L(d, ³ He)=1(+3), strong population in Coulomb excitation. T _{1/2} : from DSAM in Coulomb Excitation. Others: 1.4 ps 4 from B(E2)=0.0050 13 from (e,e'), 0.24 ps +24-12 from DSAM in (n,n' γ). μ : from transient field technique in Coulomb excitation. Other: +0.84 38 from reanalysis of transient field data (2010Mo14).
1554 [@] 5 1759.16 10	2 ⁺	1.32 ps 21	BC EF HIJKL	μ =+1.48 56 (2009Mu06)
1786.75 [‡] 10	4 ⁺	2.9 ps 8	AB EF I KLMN	

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Adopted Levels, Gammas (continued) ^{70}Zn Levels (continued)

E(level) [†]	J^π	$T_{1/2}$	XREF	Comments
				J^π : L(t,p)=4. $T_{1/2}$: weighted average of 2.0 ps +9-11 from RDDS in $^{238}\text{U}(^{76}\text{Ge},X\gamma)$ and 3.4 ps 8 from RDDS in Coulomb Excitation. Other: 1.32 ps 14 from DSAM in Coulomb Excitation (2009Mu06). μ : from transient field technique in Coulomb excitation. Other: +0.84 52 from reanalysis of transient field data (2010Mo14).
1957.28 12	2 ⁺		C EF HI KL Q	XREF: H(1945).
2140.64 17	0 ⁺		C EF I L	J^π : L(t,p)=2. XREF: F(2150)L(2126).
2375@ 5	(2,1,3) ⁺		F H Q	J^π : L(t,p)=0. XREF: Q(2300?).
2538.31 11	2 ⁺	0.21 ps +28-8	B F I KL	J^π : L(p,p')=2. $T_{1/2}$: from DSAM in (n,n' γ). J^π : from L(d, ^3He)=1+3 and J=2 from $\gamma(\theta)$ in (n,n' γ). 2004Va08 in ^{70}Cu β^- decay (33 s) assign (3 ⁺) to this level, however, this is unlikely given its direct population in Coulomb excitation. L(p,p')=(0) is discrepant.
2665@ 5	2 ⁺		EF L	J^π : L(t,p)=2.
2693.40 11	4 ⁺	0.28 ps +35-14	AB EF I K	$T_{1/2}$: from DSAM in (n,n' γ). J^π : L(p,p')=4.
2805@ 5			F	
2859.49 11	3 ⁻	0.201 ps 14	B EF HI K	$\beta_3=0.20$ (1993Mo15) J^π : L(t,p)=3; analyzing power consistent with 3 ⁻ in (pol p,p'). β_3 : from (pol p,p'). $T_{1/2}$: from DSAM in Coulomb Excitation.
2895.10 [‡] 13	(6 ⁺)		A K MN	J^π : 1108 γ to 4 ⁺ , band assignment.
2949.67 18	1 ⁺ ,2 ⁺ ,3 ⁺	0.042 ps +21-14	I KL	XREF: L(?). J^π : M1+E2 2064 γ to 2 ⁺ . $T_{1/2}$: from DSAM in (n,n' γ).
2954@ 5			F	E(level): possibly the same as 2949.2-keV level, although L(p,p')=(1) is discrepant with Adopted J^π .
2978.26 23	4 ⁺		B EF K	J^π : L(t,p)=4.
3022# 10			L	E(level): possibly the same as 3037.6-keV level, although L(d, ^3He)=(1) is discrepant with Adopted J^π .
3038.15 11	5 ⁻	1.04 ps 7	AB EF HI K MN	J^π : L(p,p')=5, L(t,p)=(5), population in Coulomb Excitation makes $J^\pi=4^-$ or 6 ⁻ unlikely. $J^\pi=4^-$ proposed in (n,n' γ) based on population strength and $J^\pi=4^+$ proposed in $^{208}\text{Pb}(^{64}\text{Ni},X\gamma)$. $T_{1/2}$: from DSAM in Coulomb Excitation. Configuration= $((\pi 2p_{3/2})^2(\nu 2p_{1/2})^{-1}(\nu 1g_{9/2}))$ (2004Va08).
3222.08 10	1		I	J^π : from $\gamma(\theta)$ in (n,n' γ).
3235 5	3 ⁺ ,4 ⁺ ,5 ⁺		EF	E(level): from (p,p'). J^π : from L(p,p')=4.
3246.71 11	(3 ⁻ ,4 ⁺)		B	J^π : strong β feeding from $J^\pi=3^-$ parent, 209 γ to 5 ⁻ , 708 γ to 2 ⁺ . E(level): possibly the same as the 3235-keV level.
3328@ 5	(0 ⁺)		EF	J^π : L(t,p)=(0).
3342.0 3	3 ⁻		A E H	J^π : L(α,α')=3.
3419@ 5	(3 ⁻)		EF	J^π : L(t,p)=(3), L(p,p')=3.

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Adopted Levels, Gammas (continued)

^{70}Zn Levels (continued)

E(level) [†]	J^π	XREF	Comments
3464 [@] 5	4 ⁺	EF H	J^π : L(t,p)=4.
3476.68 14		A M	
3506 [@] 5	5 ⁻	EF H L	J^π : L(t,p)=5, L(p,p')=5; L=1 in (d, ³ He) is discrepant.
3598.98 14		A M	
3634.99 22	2 ⁺	C EF L	J^π : L(t,p)=2.
3680 [@] 5	0 ⁺	EF H L	J^π : L(t,p)=0; L=1(+3) in (d, ³ He) is discrepant.
3710.7 6	2 ⁺	EF I	J^π : L(t,p)=2.
3750 [@] 5	(0 ⁻ ,1 ⁻ ,2 ⁻)	EF	J^π : L(p,p')=(1).
3755.4 [‡] 10	(8 ⁺)	MN	J^π : 860 γ to (6 ⁺), band assignment.
3788.16 22		A M	
3813 [@] 5		EF	E(level): possible doublet; L(p,p')=(1)+4.
3844 [@] 5	1 ⁻	EF h	J^π : L(t,p)=1.
3848.4 6	(5,6 ⁺)	A	J^π : direct β^- feeding from $J^\pi=6^-$ parent, 2062 γ to 4 ⁺ .
3888 [@] 5	(4) ⁺	EF h	J^π : L(p,p')=4.
3904.0 4	(5,6 ⁺)	A	J^π : direct β^- feeding from $J^\pi=6^-$ parent, 2117 γ to 4 ⁺ .
3914 10		E	
3948 [@] 5	1 ⁻	EF	J^π : L(t,p)=1.
3999 10	2 ⁺	E H	J^π : L(t,p)=2.
4001.46 15	(5,6,7 ⁻)	A	E(level): from (t,p). J^π : direct β^- feeding from $J^\pi=6^-$ parent, 963 γ to 5 ⁻ .
4016 10	3 ⁺ ,4 ⁺ ,5 ⁺	EF	E(level): doublet in (t,p). J^π : L(p,p')=4.
4061.40 16	(5,6,7 ⁻)	A	J^π : direct β^- feeding from $J^\pi=6^-$ parent, 1023 γ to 5 ⁻ .
4066 [@] 10	4 ⁺	EF	J^π : L(t,p)=4.
4136 [@] 10	2 ⁺ ,1 ⁺ ,3 ⁺	EF	J^π : L(p,p')=2.
4146.1 3		I	J^π : proposed as 3 ⁻ in (n,n' γ) based on population strength.
4172 [@] 10	5 ⁻	F H	XREF: H(4200). J^π : L(p,p')=5, L(α,α')=5.
4264.5 7	(5,6,7 ⁻)	A	J^π : direct β^- feeding from $J^\pi=6^-$ parent, 1226 γ to 5 ⁻ .
4291 10	2 ⁺	EF	E(level): weighted average of 4297 10 from (t,p) and 4284 10 from (p,p'). J^π : L(t,p)=L(p,p')=2.
4308.99 18	(5,6,7 ⁻)	A F	J^π : direct β^- feeding from $J^\pi=6^-$ parent, 1271 γ to 5 ⁻ .
4367 10	3 ⁺ ,4 ⁺ ,5 ⁺	F	J^π : L(p,p')=4.
4444 10	3 ⁺ ,4 ⁺ ,5 ⁺	F	J^π : L(p,p')=4.
4464.77 17	(5,6,7 ⁻)	A	J^π : direct β^- feeding from $J^\pi=6^-$ parent, 1426.5 γ to 5 ⁻ .
4514.27 23	(5,6,7 ⁻)	A	J^π : direct β^- feeding from $J^\pi=6^-$ parent, 1476 γ to 5 ⁻ .
4558.2 3	(5,6 ⁺)	A	J^π : direct β^- feeding from $J^\pi=6^-$ parent, 2771 γ to 4 ⁺ .
4588.8 3	(5,6,7 ⁻)	A	J^π : direct β^- feeding from $J^\pi=6^-$ parent, 1551 γ to 5 ⁻ .
4710.1 5	(5,6,7)	A	J^π : direct β^- feeding from $J^\pi=6^-$ parent.
4791.7 10	(5,6,7)	A	J^π : direct β^- feeding from $J^\pi=6^-$ parent.
4849.2 3	(5,6 ⁺)	A	J^π : direct β^- feeding from $J^\pi=6^-$ parent, 3062 γ to 4 ⁺ .
4935.9 [‡] 14	(10 ⁺)	MN	J^π : 1180.5 γ to (8 ⁺), band assignment.
5061.3 5	(5,6,7)	A	J^π : direct β^- feeding from $J^\pi=6^-$ parent.
6116.2 [‡] 17	(12 ⁺)	MN	J^π : 1180.3 γ to (10 ⁺), band assignment.

[†] From a least-squares fit to E γ , by evaluators, for levels connected by γ rays. For levels from transfer reactions, corresponding dataset is indicated.

[‡] Band(A): yrast band.

From (d,³He).

@ From (p,p'),(pol p,p').

Adopted Levels, Gammas (continued)

E _i (level)	J _i ^π	E _γ [†]	I _γ [†]	E _f	J _f ^π	Mult. [‡]	δ [#]	γ(⁷⁰ Zn)		Comments
								α	I _(γ+ce)	
884.92	2 ⁺	884.88 9	100	0.0	0 ⁺	E2		3.97×10 ⁻⁴		α(K)=0.000356 5; α(L)=3.58×10 ⁻⁵ 5; α(M)=5.12×10 ⁻⁶ 8; α(N)=2.04×10 ⁻⁷ 3 B(E2)(W.u.)=16.7 10 Mult.: from Coulomb Excitation from 0 ⁺ ground state.
1070.76	0 ⁺	185.85 [@] 3	100	884.92	2 ⁺	[E2]		0.0634		α(K)=0.0563 8; α(L)=0.00613 9; α(M)=0.000871 13; α(N)=3.07×10 ⁻⁵ 5 B(E2)(W.u.)=37.3 19 E _γ : other: 184.4 2 in (n,n'γ). I _(γ+ce) : for 100 transitions of 185.9γ as measured in (p,p'γ). Mult.: from internal conversion data in (p,p'γ). E _γ : from (p,p'γ).
		1067		0.0	0 ⁺	E0			<0.3	
1759.16	2 ⁺	874.33 [@] 8	100 [@] 9	884.92	2 ⁺	M1+E2	+0.75 15	3.58×10 ⁻⁴ 9		α(K)=0.000321 9; α(L)=3.21×10 ⁻⁵ 9; α(M)=4.61×10 ⁻⁶ 12; α(N)=1.85×10 ⁻⁷ 5 B(E2)(W.u.)=10 4; B(M1)(W.u.)=0.0095 23 Mult.: D+Q from γ(θ) in (n,n'γ), Δπ=no from level scheme.
		1759.6 [@] 2	68 [@] 7	0.0	0 ⁺	[E2]		2.86×10 ⁻⁴		α(K)=7.92×10 ⁻⁵ 11; α(L)=7.86×10 ⁻⁶ 11; α(M)=1.127×10 ⁻⁶ 16; α(N)=4.56×10 ⁻⁸ 7 B(E2)(W.u.)=0.60 12
1786.75	4 ⁺	901.7 1	100	884.92	2 ⁺	[E2]		3.78×10 ⁻⁴		α(K)=0.000339 5; α(L)=3.41×10 ⁻⁵ 5; α(M)=4.88×10 ⁻⁶ 7; α(N)=1.95×10 ⁻⁷ 3 B(E2)(W.u.)=19 6
1957.28	2 ⁺	1072.2 [@] 1	100	884.92	2 ⁺					
2140.64	0 ⁺	1255.6 ^a 2	100	884.92	2 ⁺					
2538.31	2 ⁺	751.5 ^a 2	≈18 ^a	1786.75	4 ⁺	[E2]		6.06×10 ⁻⁴		α(K)=0.000543 8; α(L)=5.49×10 ⁻⁵ 8; α(M)=7.86×10 ⁻⁶ 11; α(N)=3.11×10 ⁻⁷ 5 B(E2)(W.u.)=73 44 I _γ : other: 58 in (n,n'γ).
		779.1 [@] 2	40 [@] 4	1759.16	2 ⁺					
		1653.9 [@] 2	100 [@] 7	884.92	2 ⁺	M1+E2	-1.5 3	2.39×10 ⁻⁴ 5		α(K)=8.78×10 ⁻⁵ 14; α(L)=8.72×10 ⁻⁶ 14; α(M)=1.250×10 ⁻⁶ 19; α(N)=5.06×10 ⁻⁸ 8 B(E2)(W.u.)=4.9 +49-21; B(M1)(W.u.)=0.0040 +40-20 Mult.: D+Q from γ(θ) in (n,n'γ), Δπ=no from level scheme.
		2537.9 ^a 3	20 ^a	0.0	0 ⁺	[E2]		6.18×10 ⁻⁴		α(K)=4.09×10 ⁻⁵ 6; α(L)=4.05×10 ⁻⁶ 6; α(M)=5.81×10 ⁻⁷ 9; α(N)=2.36×10 ⁻⁸ 4 B(E2)(W.u.)=0.17 10
2693.40	4 ⁺	735.5 ^a 2	11 ^a	1957.28	2 ⁺	[E2]		6.43×10 ⁻⁴		α(K)=0.000576 8; α(L)=5.82×10 ⁻⁵ 9; α(M)=8.33×10 ⁻⁶ 12; α(N)=3.30×10 ⁻⁷ 5 B(E2)(W.u.)=26 +26-14
		906.5 1	92 12	1786.75	4 ⁺					

Adopted Levels, Gammas (continued)

$\gamma(^{70}\text{Zn})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. [‡]	$\delta^\#$	α	Comments
2693.40	4 ⁺	934.9 ^a 3	30 ^a	1759.16	2 ⁺	[E2]		3.46×10 ⁻⁴	$\alpha(\text{K})=0.000310$ 5; $\alpha(\text{L})=3.12\times 10^{-5}$ 5; $\alpha(\text{M})=4.46\times 10^{-6}$ 7; $\alpha(\text{N})=1.782\times 10^{-7}$ 25 B(E2)(W.u.)=21 +21-12
		1809.2 ^a 3	100 ^a 16	884.92	2 ⁺	[E2]		3.04×10 ⁻⁴	$\alpha(\text{K})=7.51\times 10^{-5}$ 11; $\alpha(\text{L})=7.46\times 10^{-6}$ 11; $\alpha(\text{M})=1.069\times 10^{-6}$ 15; $\alpha(\text{N})=4.32\times 10^{-8}$ 6 B(E2)(W.u.)=2.6 +26-15
2859.49	3 ⁻	902		1957.28	2 ⁺				E_γ : observed only in Coulomb Excitation.
		1072.2 ^{&} 1	100 ^{&} 13	1786.75	4 ⁺	[E1]		1.12×10 ⁻⁴	$\alpha(\text{K})=0.0001001$ 14; $\alpha(\text{L})=9.94\times 10^{-6}$ 14; $\alpha(\text{M})=1.423\times 10^{-6}$ 20; $\alpha(\text{N})=5.74\times 10^{-8}$ 8 B(E1)(W.u.)=0.00068 11
		1100.5 ^{&} 2	45 ^{&} 5	1759.16	2 ⁺	[E1]		1.15×10 ⁻⁴	$\alpha(\text{K})=9.54\times 10^{-5}$ 14; $\alpha(\text{L})=9.47\times 10^{-6}$ 14; $\alpha(\text{M})=1.356\times 10^{-6}$ 19; $\alpha(\text{N})=5.47\times 10^{-8}$ 8 B(E1)(W.u.)=0.00028 5
		1975.0 ^{&} 4	93 ^{&} 7	884.92	2 ⁺	[E1]		6.56×10 ⁻⁴	$\alpha(\text{K})=3.61\times 10^{-5}$ 5; $\alpha(\text{L})=3.57\times 10^{-6}$ 5; $\alpha(\text{M})=5.11\times 10^{-7}$ 8; $\alpha(\text{N})=2.07\times 10^{-8}$ 3 B(E1)(W.u.)=0.000100 13
2895.10	(6 ⁺)	1108.4 1	100	1786.75	4 ⁺				
2949.67	1 ⁺ ,2 ⁺ ,3 ⁺	1191.9 ^a 3	72 ^a	1759.16	2 ⁺				
		2064.1 ^a 2	100 ^a	884.92	2 ⁺	M1+E2	+3.8 5	4.04×10 ⁻⁴	$\alpha(\text{K})=5.87\times 10^{-5}$ 9; $\alpha(\text{L})=5.82\times 10^{-6}$ 9; $\alpha(\text{M})=8.34\times 10^{-7}$ 12; $\alpha(\text{N})=3.38\times 10^{-8}$ 5 B(E2)(W.u.)=11 +4-6; B(M1)(W.u.)=0.0022 +10-13 Mult.: D+Q from $\gamma(\theta)$ in (n,n' γ), E1+M2 excluded by comparison to RUL.
2978.26	4 ⁺	1191.5 ^{&} 2	100	1786.75	4 ⁺				
3038.15	5 ⁻	1251.7 1	100	1786.75	4 ⁺	[E1]		1.68×10 ⁻⁴	$\alpha(\text{K})=7.56\times 10^{-5}$ 11; $\alpha(\text{L})=7.49\times 10^{-6}$ 11; $\alpha(\text{M})=1.073\times 10^{-6}$ 15; $\alpha(\text{N})=4.34\times 10^{-8}$ 6 B(E1)(W.u.)=0.000195 14
3222.08	1	2155.0 ^{ac} 1	≈33 ^a	1070.76	0 ⁺				E_γ : level energy difference gives $E_\gamma=2151.3$, transition not included in least-squares fitting.
		3222.0 ^a 1	≈100 ^a	0.0	0 ⁺				
3246.71	(3 ⁻ ,4 ⁺)	208.75 ^{&} 7	55 ^{&} 4	3038.15	5 ⁻				
		387.10 ^{&} 5	54 ^{&} 4	2859.49	3 ⁻				
		553.2 ^{&} 1	28 ^{&} 4	2693.40	4 ⁺				
		708.42 ^{&} 7	100 ^{&} 5	2538.31	2 ⁺				
		1460.4 ^{&} 2	20 ^{&} 4	1786.75	4 ⁺				
3342.0	3 ⁻	1555.2 3	100	1786.75	4 ⁺				
3476.68		438.2 2	22.2 10	3038.15	5 ⁻				
		783.1 2	7.8 10	2693.40	4 ⁺				
		1690.3 2	100.0 16	1786.75	4 ⁺				
3598.98		560.82 8	100	3038.15	5 ⁻				

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Adopted Levels, Gammas (continued)

$\gamma(^{70}\text{Zn})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π
3634.99	2 ⁺	1875.8 [@]	2	1759.16	2 ⁺	4464.77	(5,6,7 ⁻)	988.0	3	28	3
3710.7	2 ⁺	1951.5 ^a	6	1759.16	2 ⁺			1426.5	2	100	4
3755.4	(8 ⁺)	860.3 ^b	100	2895.10	(6 ⁺)			1569.8	2	32	3
3788.16		750.0	2	3038.15	5 ⁻	4514.27	(5,6,7 ⁻)	1476.1	2	100	3
		893.1	6	2895.10	(6 ⁺)	4558.2	(5,6 ⁺)	1520.1	3	67	5
3848.4	(5,6 ⁺)	2061.6	6	1786.75	4 ⁺			2771.2	6	100	4
3904.0	(5,6 ⁺)	2117.2	4	1786.75	4 ⁺	4588.8	(5,6,7 ⁻)	1550.6	3	100	3
4001.46	(5,6,7 ⁻)	963.3	1	3038.15	5 ⁻	4710.1	(5,6,7)	1815.0	5	100	5
4061.40	(5,6,7 ⁻)	584.7	1	3476.68		4791.7	(5,6,7)	1315	1	100	1
		1023.3	2	3038.15	5 ⁻	4849.2	(5,6 ⁺)	1954.2	3	100	4
4146.1		1107.9 ^a	3	3038.15	5 ⁻			3062.1	6	85	4
4264.5	(5,6,7 ⁻)	1226.3	7	3038.15	5 ⁻	4935.9	(10 ⁺)	1180.5 ^b	100	3755.4	(8 ⁺)
4308.99	(5,6,7 ⁻)	1270.8	2	3038.15	5 ⁻	5061.3	(5,6,7)	2166.2	5	100	5
		1413.9	2	2895.10	(6 ⁺)	6116.2	(12 ⁺)	1180.3 ^b	100	4935.9	(10 ⁺)

[†] From ^{70}Cu β^- decay (44.5 s), except where noted.

[‡] From $\gamma(\theta)$ in (n,n' γ), except where noted.

From $\gamma(\theta)$ in (n,n' γ).

@ From ^{70}Cu β^- decay (6.6 s).

& From ^{70}Cu β^- decay (33 s).

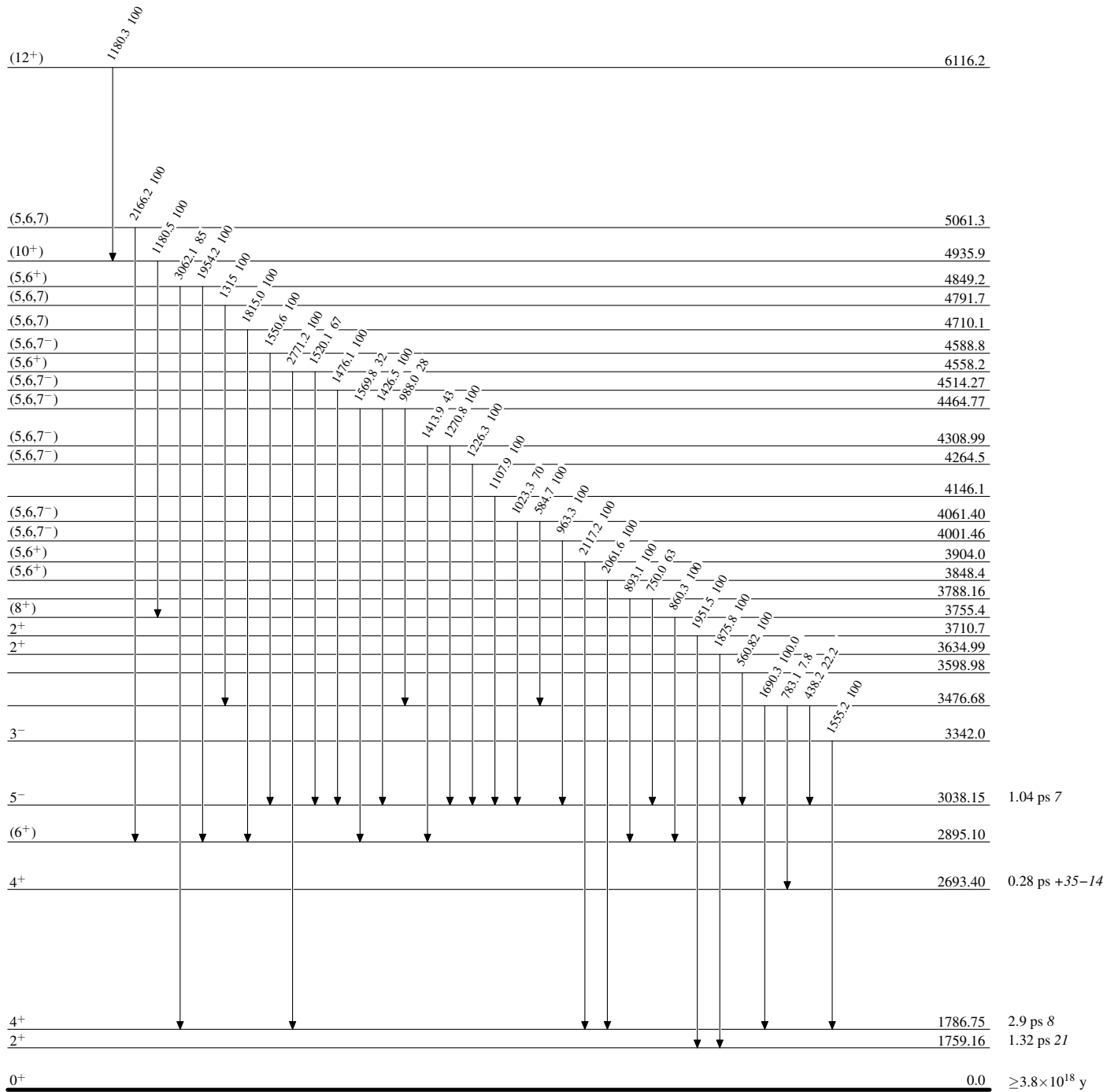
^a From (n,n' γ).

^b From $^{208}\text{Pb}(^{64}\text{Ni},X\gamma)$.

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

Adopted Levels, GammasLevel Scheme

Intensities: Relative photon branching from each level

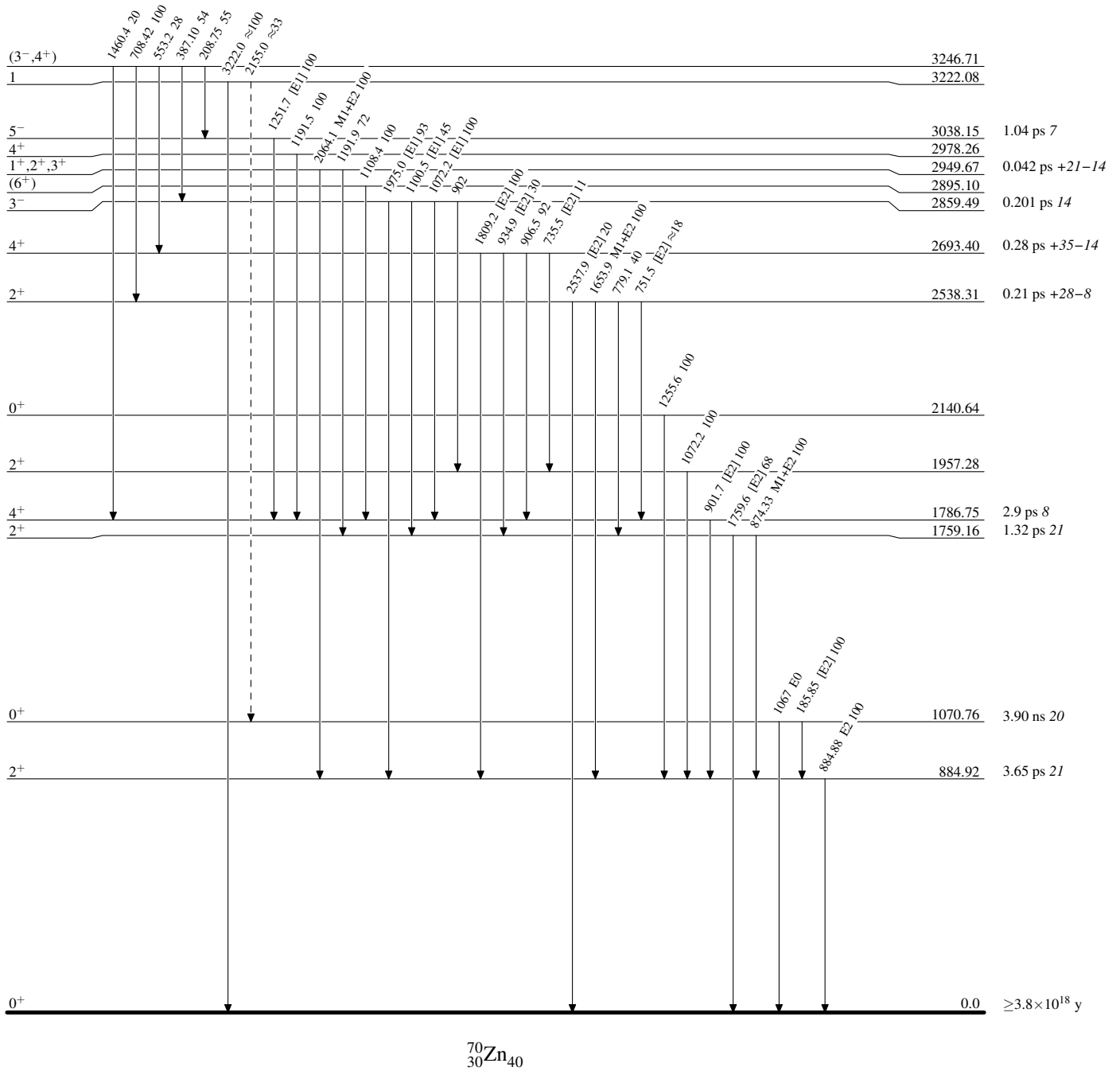
 $^{70}\text{Zn}_{40}$

Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

-----▶ γ Decay (Uncertain)

Adopted Levels, Gammas

Band(A): Yrast band

(12⁺) 6116.2

1180

(10⁺) 4935.9

1180

(8⁺) 3755.4

860

(6⁺) 2895.10

1108

4⁺ 1786.75

902

2⁺ 884.92

885

0⁺ 0.0 ${}^{70}_{30}\text{Zn}_{40}$