

$^{112}\text{Cd}(\alpha, 2n\gamma)$ [1995Wi15](#), [1994Sc04](#), [1979Br07](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 113, 515 (2012)	1-Jan-2012

[1995Wi15](#) (also [1994Sc04](#), same group): $E(\alpha)=28$ MeV. Measured γ , $\gamma\gamma$, $\gamma(\theta)$, Linear Polarization with the Compton-suppressed Ge-detector array OSIRIS-cube.

[1991ViZX](#): $E(\alpha)=27$ MeV. They have measured $T_{1/2}$ by Doppler shift. They have added new levels at 2239, 2514, 2905, 3149, 3362, 3470, 3658, 3685, 3717, 4386 which are confirmed by [1995Wi15](#).

[1979Br07](#), [1980Va13](#): $E=17-33$ MeV. Measured: γ , $\alpha\gamma(t)$, ce, $\sigma(E, \theta)$, linear polarization of γ semi.

The level scheme is as given by [1995Wi15](#).

 ^{114}Sn Levels

E(level) [‡]	J ^π [#]	T _{1/2} [†]	Comments
0.0@	0 ⁺		
1299.91@ 10	2 ⁺	0.31 ps 10	
1953.28& 18	0 ⁺		
2156.4 5			
2187.64@ 13	4 ⁺	>1.4 ps	
2238.88& 17	2 ⁺		
2274.92 ^b 13	3 ⁻	1.7 ps +10-7	
2453.82 23	2 ⁺		
2514.93 16	3 ⁺		
2614.46& 15	4 ⁺	1.4 ps +14-7	
2738.4 5			
2759.7 5			
2765.61 17	4 ⁺	1.2 ps 5	
2815.24 ^b 14	5 ⁻	>1.4 ps	
2860.62 23	4 ⁺		
2905.34 24	3 ⁺		
2943.7 5	2 ⁺		
3071.4 5			
3087.49 ^b 15	7 ⁻	733 ns 14	T _{1/2} : from $\gamma(\theta)$ (1980Va13).
3100.2 5			
3107.2 5			
3149.91@ 17	6 ⁺	1.1 ps 3	
3189.00& 15	6 ⁺	2.2 ps +6-3	
3190.52 16	8 ⁻	0.35 ns 20	T _{1/2} : from $\gamma(\theta)$ (1980Va13).
3207.03 23	(2) ⁺		
3225.8 5			
3241.7 5			
3242.04 24	5 ⁺		
3244.54 17	6 ⁻	>1.4 ps	
3297.3 5			
3357.03 23	(2) ⁺		
3363.15 17	6 ⁻	1.1 ps +7-3	
3364.9 5			
3380.2 5			
3392.2 5			
3393.0 5			
3396.2 5			
3397.23 17	(3,4) ⁻		
3448.9 5			
3471.4 3	6 ⁺	0.5 ps	

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$^{112}\text{Cd}(\alpha, 2n\gamma)$ **1995Wi15,1994Sc04,1979Br07** (continued) ^{114}Sn Levels (continued)

E(level) [‡]	J ^π [#]	T _{1/2} [†]	E(level) [‡]	J ^π [#]	T _{1/2} [†]
3478.1 5			4650.7 5		
3479.1 5	(2 ⁺)		4665.0 3	9 ⁻	
3479.9			4669.59 ^a 19	8 ⁻	
3484.8 5			4670.3		
3487.7 5			4671.3 4	10 ⁻	
3510.94 ^b 18	9 ⁻	>2 ps	4672.94 ^{&} 18	10 ⁺	0.60 ps 18
3514.5 5			4678.7 5		
3524.63 17	(2,3,4) ⁻		4682.9 3	(6 ⁺)	
3560.8 5			4683.2 5		
3566.61 17	7 ⁻		4718.0 5		
3610.73 24	5 ⁽⁻⁾		4732.4 5		
3659.54 24	6 ⁺	0.8 ps +5-3	4736.54 21	10 ⁻	
3685.24 25	6 ⁻		4766.3 5		
3698.3 5			4766.7 5		
3714.1 5			4787.8 5		
3717.97 18	7 ⁻	1.0 ps +7-4	4789.1 5		
3720.3 5			4805.9 5		
3854.3 5			4858.8 5		
3855.6 5			4916.6 3	10 ⁻	
3871.45 ^{&} 16	8 ⁺	1.0 ps +4-3	4919.50 19	9 ⁻	
3889.4 5			4923.88 ^a 19	9 ⁻	
3971.38 21	8 ⁻		4924.5 5		
3987.8 5			4927.0 5		
4040.2 5			4932.6 5		
4043.24 25	5 ⁻		4963.6 ^b 3	11 ⁻	0.30 ps 11
4046.92 ^a 19	5 ⁻		4964.3 5		
4088.85 [@] 21	8 ⁺		5014.4 5		
4139.96 20	10 ⁺	>0.7 ps	5039.4 5		
4141.65 21	8 ⁻		5055.1 3	9 ⁻	
4152.5 5			5065.5 5		
4221.02 ^a 20	6 ⁻		5095.1 3	(10 ⁻)	
4262.1 5			5103.0 5		
4294.0 5			5119.9 5		
4313.1 3	7 ⁺		5124.5 5		
4322.1 5			5182.12 24	12 ⁺	0.5 ps +2-1
4338.5 5			5182.7 5		
4394.3 5			5191.7 5		
4403.1 5			5213.8 4	(8,10) ⁺	
4406.6 5			5214.5 [@] 4	(10) ⁺	
4428.7 5			5221.9 4	(11) ⁻	
4430.1 5			5226.7 5		
4430.49 ^a 17	7 ⁻		5233.79 ^a 22	10 ⁻	
4434.7 5			5255.2 4	(8,10) ⁺	
4449.4 5			5280.6 5		
4481.6 5			5296.6 5		
4488.6 5			5299.6 3	11 ⁺	0.25 ps 11
4492.1 5			5310.9 3	(8,10) ⁺	
4515.2 5			5349.1 5		
4527.0 5			5357.5 3	(8,10) ⁺	
4553.4 4	8 ⁺		5372.5 5		
4568.5 5			5419.6 5		
4583.9 5			5445.4 5		
4593.6 5			5468.3 3	(12 ⁻)	
4613.1 5			5488.3 3	(9,11 ⁻)	
4624.1 4	7 ⁻		5500.4 5		

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$^{112}\text{Cd}(\alpha, 2n\gamma)$ [1995Wi15](#), [1994Sc04](#), [1979Br07](#) (continued) ^{114}Sn Levels (continued)

E(level) [‡]	J ^π [#]	T _{1/2} [†]	E(level) [‡]	J ^π [#]
5535.6 5			6067.9 5	
5538.8 5	(9,11) ⁺		6131.6 5	
5548.36 ^{&} 24	12 ⁺	0.67 ps 18	6132.4 5	
5554.29 ^a 21	11 ⁻		6164.4 5	
5586.7 5			6174.0 5	
5597.0 5			6175.0 5	
5599.5 5			6225.7 5	
5628.2 3	(8,10) ⁺		6266.4 3	14 ⁺
5700.0 3	(9,11) ⁻		6279.28 ^a 25	13 ⁻
5707.5 5			6341.6 ^{&} 3	14 ⁺
5735.3 3	(9,11) ⁻		6460.4 ^b 4	(13) ⁻
5776.46 22	12 ⁺		6496.5 5	
5776.9 5			6497.7 4	(14) ⁺
5801.3 5			6520.6 5	
5835.2 3	(8,10) ⁻		6551.5 4	15 ⁺
5857.3 5			6552.5 5	
5886.8 5			6610.7 5	
5892.1 5			6690.6 5	(13) ⁻
5921.20 24	13 ⁺	1.4 ps +14-7	6716.2 ^a 5	14 ⁻
5922.19 ^a 23	12 ⁻		6725.8 5	
5956.4			6926.1 5	(16) ⁺
5974.5 3	(12) ⁺		7115.4 ^a 5	
5977.3 5			7370.1 5	
6001.4 5			7377.2 5	
6045.9 3	14 ⁺	0.5 ps +4-2	7608.2 ^a 5	

[†] From DSA ([1991ViZW](#)), unless otherwise noted.

[‡] From least-squares fit by evaluators to Eγ's. Uncertainty of 0.3 keV was assumed, when no Δ(Eγ) is assigned.

[#] From [1995Wi15](#) based on γ(θ), γ(pol), systematics of side feedings.

@ Band(A): g.s. band.

& Band(B): K^π=0⁺ band. "Amsterdam" band.

^a Band(C): K^π=5⁻ band.

^b Band(D): Negative-parity sequence based on 3⁻.

 $\gamma(^{114}\text{Sn})$

A₂, A₄ coefficients from γ(θ) and linear polarization coefficients are primarily from [1995Wi15](#). [1994Sc04](#) from the same group as [1995Wi15](#) list the same values for about 40 gamma rays. A₂, A₄ and POL are also measured in [1980Va13](#) and their previous paper [1979Br07](#) for 26 gamma rays.

E _γ [†]	I _γ	E _i (level)	J _i ^π	E _f	J _f ^π	Mult. [‡]	Comments
103.0 1	22.47 9	3190.52	8 ⁻	3087.49	7 ⁻	M1	B(M1)(W.u.)=0.06 4 A ₂ =-0.168 1; A ₄ =+0.016 1 POL=-0.10 4. Additional information 14.
124.7 2	0.11 2	6045.9	14 ⁺	5921.20	13 ⁺		A ₂ =-0.2 1; A ₄ =+0.05 15
144.7 2	0.09 1	5921.20	13 ⁺	5776.46	12 ⁺		A ₂ =-0.1 1; A ₄ =+0.05 17
157.1 1	0.14 4	3244.54	6 ⁻	3087.49	7 ⁻		A ₂ =-1.0 2; A ₄ =+0.2 1
174.1 1	0.17 1	4221.02	6 ⁻	4046.92	5 ⁻		A ₂ =-0.80 6; A ₄ =+0.04 8

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$^{112}\text{Cd}(\alpha, 2n\gamma)$ **1995Wi15,1994Sc04,1979Br07 (continued)**

$\gamma(^{114}\text{Sn})$ (continued)								
E_γ †	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	$\delta^\ddagger$	Comments
175.5		4488.6		4313.1	7 ⁺			
200.8 2	0.65 1	2815.24	5 ⁻	2614.46	4 ⁺			$A_2=-0.2$ 2; $A_4=+0.001$ 4 POL=+0.04 6. Additional information 7.
203.2		3392.2		3189.00	6 ⁺			
203.2		3714.1		3510.94	9 ⁻			
203.5 1	0.13 1	3566.61	7 ⁻	3363.15	6 ⁻			$A_2=+0.18$ 6; $A_4=+0.21$ 8
209.5 2	0.08 1	4430.49	7 ⁻	4221.02	6 ⁻			$A_2=-1.00$ 9; $A_4=+0.3$ 1
217.4 2	0.09 1	4088.85	8 ⁺	3871.45	8 ⁺			$A_2=+0.4$ 1; $A_4=-0.1$ 1
228.5		5776.9		5548.36	12 ⁺			
239.1 2	0.10 2	4669.59	8 ⁻	4430.49	7 ⁻	M1+E2	-0.6 +4-27	$A_2=-0.63$ 3; $A_4=+0.13$ 5 POL=+0.1 2.
244.9		3855.6		3610.73	5 ⁽⁻⁾			
246.3		3396.2		3149.91	6 ⁺			
246.5		5468.3	(12 ⁻)	5221.9	(11 ⁻)			
250.7 2	0.12 1	2765.61	4 ⁺	2514.93	3 ⁺	M1+E2	-0.1 +1-42	$A_2=-0.23$ 6; $A_4=0.00$ 8 B(M1)(W.u.)=0.06 3; B(E2)(W.u.)=8 +16-8 POL=-0.2 3. $A_2=-0.35$ 8; $A_4=0.0$ 1 POL=-0.3 2.
254.3 2	0.10 1	4923.88	9 ⁻	4669.59	8 ⁻	M1+E2	-0.03 +8-19	$A_2=-0.35$ 8; $A_4=0.0$ 1 POL=-0.3 2.
263.0		5226.7		4963.6	11 ⁻			
272.3 1	45.4 1	3087.49	7 ⁻	2815.24	5 ⁻	E2		$A_2=+0.038$ 1; $A_4=-0.004$ 1 $\alpha(\text{K})_{\text{exp}}=39\times 10^{-3}$ 6 B(E2)(W.u.)=0.0157 3 POL=+0.04 1. Additional information 10. δ : $\delta(\text{M3/E2})=+0.11$ +7-6. From RUL, $\delta<0.003$.
285.0		3100.2		2815.24	5 ⁻			
285.1		6551.5	15 ⁺	6266.4	14 ⁺			
285.6		2238.88	2 ⁺	1953.28	0 ⁺			
292.0		3107.2		2815.24	5 ⁻			
292.7		3380.2		3087.49	7 ⁻			
309.0		5857.3		5548.36	12 ⁺			
309.9 3	0.09 1	5233.79	10 ⁻	4923.88	9 ⁻			$A_2=-0.76$ 8; $A_4=+0.1$ 1
314.4 3	0.09 1	5233.79	10 ⁻	4919.50	9 ⁻	M1+E2	-0.12 +8-16	$A_2=-0.52$ 8; $A_4=+0.1$ 1 POL=-0.2 1.
316.2		3560.8		3244.54	6 ⁻			
320.4 2	22.40 6	3510.94	9 ⁻	3190.52	8 ⁻	M1+E2	+0.134 1	$\alpha(\text{K})_{\text{exp}}=23\times 10^{-3}$ 4 $A_2=-0.022$ 1; $A_4=+0.007$ 1 B(M1)(W.u.)<0.33; B(E2)(W.u.)<46 POL=-0.53 3. Additional information 16.
320.5		3225.8		2905.34	3 ⁺			
320.5		5554.29	11 ⁻	5233.79	10 ⁻			
321.6		3471.4	6 ⁺	3149.91	6 ⁺			
322.1		3566.61	7 ⁻	3244.54	6 ⁻			
327.3 1	1.41 3	2514.93	3 ⁺	2187.64	4 ⁺	M1+E2	+0.02 +2-1	$A_2=-0.136$ 6; $A_4=+0.016$ 8 POL=-0.14 2.
334.7 1	2.13 1	3149.91	6 ⁺	2815.24	5 ⁻	E1+M2	-0.02 1	$A_2=-0.240$ 4; $A_4=-0.002$ 6 B(E1)(W.u.)=0.0037 10; B(M2)(W.u.)=6.E+1 +7-6 POL=+0.28 2.
339.5		2614.46	4 ⁺	2274.92	3 ⁻			
345.2 2	0.35 1	6266.4	14 ⁺	5921.20	13 ⁺	M1+E2	+0.21 +3-2	$A_2=+0.12$ 2; $A_4=+0.03$ 3 POL=-0.55 7.
354.8 2	0.23 1	3717.97	7 ⁻	3363.15	6 ⁻	M1+E2	-0.06 +4-6	$A_2=-0.32$ 3; $A_4=+0.04$ 4

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$^{112}\text{Cd}(\alpha, 2n\gamma)$ **1995Wi15,1994Sc04,1979Br07 (continued)** $\gamma(^{114}\text{Sn})$ (continued)

E_γ †	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.‡	$\delta^\ddagger$	Comments
357.1 2	0.08 1	6279.28	13 ⁻	5922.19	12 ⁻	M1+E2	-2.5 +24-14	B(M1)(W.u.)=0.06 5; B(E2)(W.u.)=1.4 +22-4 POL=-0.24 6. A ₂ =-0.4 1; A ₄ =-0.1 2 POL=0.0 1.
367.9 2	0.07 1	5922.19	12 ⁻	5554.29	11 ⁻	M1+E2	-0.4 +2-6	A ₂ =-1.0 1; A ₄ =+0.12 9 POL=0.0 1.
374.6		6926.1	(16 ⁺)	6551.5	15 ⁺			
375.5 2	0.20 2	2614.46	4 ⁺	2238.88	2 ⁺	E2		A ₂ =+0.22 7; A ₄ =-0.09 9 $\alpha(\text{K})_{\text{exp}}=16\times 10^{-3}$ 3 B(E2)(W.u.)=20 +21-20 $\alpha(\text{K})_{\text{exp}}$: for 375.2 and 376.2. Additional information 4. POL=-0.22 5 for 375.2+376.2 (1979Br07). A ₂ =-0.181 6; A ₄ =-0.011 9 POL=-0.16 2. Additional information 17.
376.2 2	1.73 1	3566.61	7 ⁻	3190.52	8 ⁻	M1+E2	+0.05 2	A ₂ =+0.2 1; A ₄ =-0.3 1 POL=+0.4 1.
383.6 2	0.07 1	4430.49	7 ⁻	4046.92	5 ⁻	E2		
390.4		2905.34	3 ⁺	2514.93	3 ⁺			
404.8 3	0.23 1	3971.38	8 ⁻	3566.61	7 ⁻	M1+E2	-0.13 +6-8	A ₂ =-0.46 4; A ₄ =+0.07 5 POL=-0.17 6. A ₂ =+0.33 2; A ₄ =-0.07 2 $\alpha(\text{K})_{\text{exp}}=8\times 10^{-3}$ 3 B(E2)(W.u.)=20 6 POL=+0.65 5. Additional information 11.
423.4 2	0.60 1	3189.00	6 ⁺	2765.61	4 ⁺	E2		A ₂ =+0.31 3; A ₄ =-0.01 4 B(M1)(W.u.)=0.003 3; B(E2)(W.u.)=0.9 +10-9 POL=+1.08 8. A ₂ =+0.01 1; A ₄ =+0.006 1 $\alpha(\text{K})_{\text{exp}}=9\times 10^{-3}$ 3 B(M1)(W.u.)<0.18; B(E2)(W.u.)<21 POL=-0.46 3. Additional information 15.
426.8 2	0.29 1	2614.46	4 ⁺	2187.64	4 ⁺	M1+E2	-0.24 +6-5	
429.3 2	2.75 2	3244.54	6 ⁻	2815.24	5 ⁻	M1+E2	+0.161 +4-3	
436.9		6716.2	14 ⁻	6279.28	13 ⁻			
448.6		4669.59	8 ⁻	4221.02	6 ⁻			
449.3		4670.3		4221.02	6 ⁻			
451.8 2	0.24 1	6497.7	(14) ⁺	6045.9	14 ⁺	M1+E2	-0.3 +4-2	A ₂ =+0.30 4; A ₄ =-0.09 6 POL=+0.58 7. A ₂ =-0.02 4; A ₄ =+0.05 5 POL=-0.36 9.
460.4 3	0.23 1	3971.38	8 ⁻	3510.94	9 ⁻	M1+E2	-0.11 3	
473.5		3717.97	7 ⁻	3244.54	6 ⁻			
490.7		2765.61	4 ⁺	2274.92	3 ⁻			
492.8		4805.9		4313.1	7 ⁺			
493.5		4923.88	9 ⁻	4430.49	7 ⁻			
504.7 2	0.42 3	5468.3	(12 ⁻)	4963.6	11 ⁻			
505.5 3	0.82 3	6551.5	15 ⁺	6045.9	14 ⁺	M1+E2	+0.07 2	A ₂ =+0.35 3; A ₄ =+0.03 4 A ₂ =-0.09 3; A ₄ =+0.001 20 POL=-0.21 3.
512.1		5065.5		4553.4	8 ⁺			
522.3 3	0.09 1	4088.85	8 ⁺	3566.61	7 ⁻	E1		A ₂ =-0.4 1; A ₄ =+0.1 2 POL=-0.03 22. δ : $\delta(\text{M2/E1})=+2.1 +48-14$. A ₂ =-0.08 2; A ₄ =-0.02 2 B(M1)(W.u.)=0.08 6; B(E2)(W.u.)=0.5 5 POL=-0.27 3. A ₂ =+0.050 2; A ₄ =-0.036 3
527.4 2	0.88 2	3717.97	7 ⁻	3190.52	8 ⁻	M1+E2	-0.05 2	
540.3 1	6.09 3	2815.24	5 ⁻	2274.92	3 ⁻	E2		

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$^{112}\text{Cd}(\alpha,2n\gamma)$ **1995Wi15,1994Sc04,1979Br07** (continued) $\gamma(^{114}\text{Sn})$ (continued)

E_γ †	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.‡	$\delta^\ddagger$	Comments
								$\alpha(\text{K})\text{exp}=4.3\times 10^{-3}$ 8 B(E2)(W.u.)<25 POL=+0.14 1. Additional information 8. δ : $\delta(\text{M3/E2})=-0.29$ 7-6. $A_2=-0.345$ 5; $A_4=+0.012$ 7 B(M1)(W.u.)=0.12 8; B(E2)(W.u.)=2.0 17 POL=-0.23 2.
547.9 3	2.44 2	3363.15	6 ⁻	2815.24	5 ⁻	M1+E2	-0.08 2	
549.7		3364.9		2815.24	5 ⁻			
550.8		2738.4		2187.64	4 ⁺			
557.0		3854.3		3297.3				
557.3		4428.7		3871.45	8 ⁺			
564.2 3	0.37 2	5233.79	10 ⁻	4669.59	8 ⁻			$A_2=+0.12$ 3; $A_4=-0.14$ 5 POL=+0.19 6.
573.9		3479.1	(2 ⁺)	2905.34	3 ⁺			
574.5 1	13.46 5	3189.00	6 ⁺	2614.46	4 ⁺	E2		$A_2=+0.321$ 2; $A_4=-0.093$ 2 $\alpha(\text{K})\text{exp}=4.9\times 10^{-3}$ 10 B(E2)(W.u.)=1.0×10 ² 3 POL=+0.55 3. Additional information 12.
574.6		5801.3		5226.7				
577.9 3	0.87 2	4088.85	8 ⁺	3510.94	9 ⁻	E1		$A_2=-0.14$ 3; $A_4=+0.002$ 10 POL=+0.28 2. δ : $\delta(\text{M2/E1})=-0.04$ 1.
597.1		4568.5		3971.38	8 ⁻			
610.2		4481.6		3871.45	8 ⁺			
610.3		4221.02	6 ⁻	3610.73	5 ⁽⁻⁾			
621.6 3	0.19 2	5921.20	13 ⁺	5299.6	11 ⁺	E2		$A_2=+0.21$ 7; $A_4=-0.1$ 1 B(E2)(W.u.)=19 +20-19 POL=+0.33 7. δ : $\delta(\text{M3/E2})=-0.1$ 1. $A_2=-0.076$ 1; $A_4=+0.009$ 1 $\alpha(\text{K})\text{exp}=1.4\times 10^{-3}$ 3 B(E1)(W.u.)<0.00075 POL=+0.12 1. Additional information 9. δ : $\delta(\text{M2/E1})=+0.02$ 1. $A_2=-0.195$ 3; $A_4=-0.009$ 4 $\alpha(\text{K})\text{exp}=1.7\times 10^{-3}$ 7 B(E1)(W.u.)<0.0017 POL=+0.27 2. Additional information 19.
627.6 2	57.8 2	2815.24	5 ⁻	2187.64	4 ⁺	E1		
629.0 1	8.56 4	4139.96	10 ⁺	3510.94	9 ⁻	E1		
629.9		5280.6		4650.7				
630.4		5554.29	11 ⁻	4923.88	9 ⁻			
630.5		3717.97	7 ⁻	3087.49	7 ⁻			
634.9 2	0.18 1	5554.29	11 ⁻	4919.50	9 ⁻	E2		$A_2=+0.35$ 5; $A_4=+0.01$ 7 POL=+0.48 4.
653.4		1953.28	0 ⁺	1299.91	2 ⁺			
654.6		3393.0		2738.4				
659.7		5586.7		4927.0				
668.7		2943.7	2 ⁺	2274.92	3 ⁻			
674.3		5103.0		4428.7				
675.3		4040.2		3364.9				
682.4 1	12.50 5	3871.45	8 ⁺	3189.00	6 ⁺	E2		$\alpha(\text{K})\text{exp}=3.2\times 10^{-3}$ 5 $A_2=+0.336$ 2; $A_4=-0.098$ 2

Continued on next page (footnotes at end of table)

$^{112}\text{Cd}(\alpha, 2n\gamma)$ **1995Wi15,1994Sc04,1979Br07 (continued)** $\gamma(^{114}\text{Sn})$ (continued)

E_γ †	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	$\delta^\ddagger$	Comments
								B(E2)(W.u.)= 1.2×10^2 5 POL=+0.58 4. Additional information 18. $A_2=+0.37$ 4; $A_4=-0.19$ 6 POL=+0.84 6.
688.4 2	0.27 2	5922.19	12 ⁻	5233.79	10 ⁻	E2		
696.7		5977.3		5280.6				
705.6		6174.0		5468.3 (12 ⁻)				
717.6 2	0.44 2	2905.34	3 ⁺	2187.64	4 ⁺	M1+E2	-0.7 +2-4	$A_2=+0.13$ 3; $A_4=+0.01$ 4 POL=-0.10 4. $A_2=+0.22$ 3; $A_4=-0.13$ 4 POL=+0.71 7.
725.0 2	0.33 2	6279.28	13 ⁻	5554.29	11 ⁻	E2		
730.8		6279.28	13 ⁻	5548.36	12 ⁺			
731.8 2	0.35 1	5468.3	(12 ⁻)	4736.54	10 ⁻	(E2)		$A_2=+0.26$ 3; $A_4=-0.09$ 5 POL=+0.90 9.
739.1 2	1.04 2	5921.20	13 ⁺	5182.12	12 ⁺	M1+E2	+1.4 1	$A_2=+0.55$ 1; $A_4=+0.11$ 2 B(M1)(W.u.)=0.010 10; B(E2)(W.u.)=3.E+1 3 POL=-0.52 5. Additional information 25. POL=+0.4 2 (1980Va13); sign is in conflict.
739.5		3889.4		3149.91	6 ⁺			
743.2		3987.8		3244.54	6 ⁻			
748.5		6725.8		5977.3				
751.4 2	0.81 2	3566.61	7 ⁻	2815.24	5 ⁻	E2		$A_2=+0.21$ 2; $A_4=-0.08$ 3 POL=+0.35 3. δ : $\delta(\text{M3/E2})=-0.07$ 7. $A_2=+0.3$ 1; $A_4=-0.1$ 1 POL=+0.2 3.
778.5 2	0.17 2	4141.65	8 ⁻	3363.15	6 ⁻	E2		
780.8 3	0.47 2	3971.38	8 ⁻	3190.52	8 ⁻	M1+E2	+0.1 +4-3	$A_2=+0.17$ 3; $A_4=-0.11$ 4 POL=+0.17 6. δ : $\delta(\text{E2/M1})=+0.1$ +4-3.
789.1		5892.1		5103.0				
792.6		4932.6		4139.96	10 ⁺			
793.3 2	0.49 2	6341.6	14 ⁺	5548.36	12 ⁺	E2		$A_2=+0.3$ 2; $A_4=-0.1$ 1 POL=+0.53 8.
794.0		6716.2	14 ⁻	5922.19	12 ⁻			
801.5 1	7.04 3	4672.94	10 ⁺	3871.45	8 ⁺	E2		$\alpha(\text{K})_{\text{exp}}=2.3 \times 10^{-3}$ 4 $A_2=+0.319$ 3; $A_4=-0.106$ 4 B(E2)(W.u.)=9.E+1 3 POL=+0.53 4. Additional information 20.
818.6		7370.1		6551.5	15 ⁺			
836.1		7115.4		6279.28	13 ⁻			
856.5		2156.4		1299.91	2 ⁺			
863.8 2	0.98 2	6045.9	14 ⁺	5182.12	12 ⁺	E2		$A_2=+0.31$ 1; $A_4=-0.12$ 2 B(E2)(W.u.)=6.E+1 6 POL=+0.59 5. Additional information 26. δ : $\delta(\text{M3/E2})=-0.06$ +4-3. $A_2=-0.38$ 4; $A_4=+0.03$ 6 δ : $\delta(\text{M2/E1})=0.00$ 3. POL=+0.45 7.
867.5 3	0.26 2	5538.8	(9,11) ⁺	4671.3	10 ⁻	E1		$A_2=-0.38$ 2; $A_4=+0.04$ 3 POL=-0.16 4.
870.0 2	0.63 2	3685.24	6 ⁻	2815.24	5 ⁻	M1+E2	-0.13 +4-5	
875.4		6175.0		5299.6	11 ⁺			
875.5 2	2.37 2	5548.36	12 ⁺	4672.94	10 ⁺	E2		$\alpha(\text{K})_{\text{exp}}=1.7 \times 10^{-3}$ 5 $A_2=+0.310$ 6; $A_4=-0.106$ 8

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$^{112}\text{Cd}(\alpha, 2n\gamma)$ **1995Wi15,1994Sc04,1979Br07** (continued) $\gamma(^{114}\text{Sn})$ (continued)

E_γ †	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	$\delta^\ddagger$	Comments
								B(E2)(W.u.)=50 14 POL=+0.54 4. Additional information 24.
880.2		6926.1	(16 ⁺)	6045.9	14 ⁺			
880.7		7377.2		6496.5				
881.3 2	0.25 2	5554.29	11 ⁻	4672.94	10 ⁺	E1		$A_2=-0.23$ 6; $A_4=0.00$ 3 POL=+0.50 6.
883.9 3	1.58 2	3971.38	8 ⁻	3087.49	7 ⁻	M1+E2	+0.45 +6-5	$A_2=+0.252$ 8; $A_4=+0.08$ 1 POL=-0.38 4.
887.7 1	68.6 2	2187.64	4 ⁺	1299.91	2 ⁺	E2		$A_2=+0.131$ 1; $A_4=-0.024$ 1 B(E2)(W.u.)<22 POL=+0.18 1. Additional information 2.
892.0		5445.4		4553.4	8 ⁺			
892.0		7608.2		6716.2	14 ⁻			
895.7		4406.6		3510.94	9 ⁻			
899.9		4262.1		3363.15	6 ⁻			
900.0		3514.5		2614.46	4 ⁺			
902.7 2	0.64 2	3717.97	7 ⁻	2815.24	5 ⁻	E2		$A_2=+0.36$ 2; $A_4=-0.12$ 3 B(E2)(W.u.)=11 8 POL=+0.42 4.
923.8		4434.7		3510.94	9 ⁻			
928.2		5599.5		4670.3				
939.0 2	0.69 2	2238.88	2 ⁺	1299.91	2 ⁺	M1+E2	-1.2 +4-11	$A_2=-0.10$ 2; $A_4=-0.01$ 2 POL=+0.08 3.
939.0 2		4088.85	8 ⁺	3149.91	6 ⁺			
948.1		6496.5		5548.36	12 ⁺			
949.5		6131.6		5182.12	12 ⁺			
951.1 2	0.40 2	4141.65	8 ⁻	3190.52	8 ⁻	M1+E2	+0.6 +7-9	$A_2=-0.27$ 3; $A_4=-0.22$ 4 POL=-0.3 3.
952.5		4923.88	9 ⁻	3971.38	8 ⁻			
959.0		4322.1		3363.15	6 ⁻			
962.3 3	1.92 2	3149.91	6 ⁺	2187.64	4 ⁺	E2		$A_2=+0.169$ 7; $A_4=-0.05$ 1 B(E2)(W.u.)=9.0 25 POL=+0.39 3. δ : $\delta(\text{M3/E2})=-0.19$ +4-3. From RUL, $\delta<0.0008$.
963.2		3478.1		2514.93	3 ⁺			
966.8		3241.7		2274.92	3 ⁻			
975.0 1	8.05 4	2274.92	3 ⁻	1299.91	2 ⁺	E1		$A_2=-0.110$ 2; $A_4=+0.018$ 3 $\alpha(\text{K})_{\text{exp}}=0.4\times 10^{-3}$ 2 B(E1)(W.u.)=0.00018 11 POL=+0.11 1. Additional information 3. δ : $\delta(\text{M2/E1})=-0.03$ 2.
976.5		4221.02	6 ⁻	3244.54	6 ⁻			
982.3		6164.4		5182.12	12 ⁺			
992.9		6175.0		5182.12	12 ⁺			
995.1		3448.9		2453.82	2 ⁺			
1001.3 2		4088.85	8 ⁺	3087.49	7 ⁻			
1001.4 2	3.15 3	3189.00	6 ⁺	2187.64	4 ⁺	E2		$A_2=+0.258$ 5; $A_4=-0.091$ 7 $\alpha(\text{K})_{\text{exp}}=1.3\times 10^{-3}$ 3 B(E2)(W.u.)=1.4 4 POL=+0.52 4. Additional information 13.
1004.1		6552.5		5548.36	12 ⁺			

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$^{112}\text{Cd}(\alpha, 2n\gamma)$ **1995Wi15,1994Sc04,1979Br07** (continued) $\gamma(^{114}\text{Sn})$ (continued)

E_γ †	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	$\delta^\ddagger$	Comments
1023.4 2	0.15 2	4682.9	(6 ⁺)	3659.54	6 ⁺	M1+E2	+0.6 3	$A_2=+0.56$ 7; $A_4=-0.08$ 7 POL=+0.5 2.
1027.1 2	0.40 2	5700.0	(9,11 ⁻)	4672.94	10 ⁺	E1		$A_2=-0.37$ 4; $A_4=0.00$ 5 POL=+0.15 7.
1031.1		4394.3		3363.15	6 ⁻			
1042.1 3	4.50 3	5182.12	12 ⁺	4139.96	10 ⁺	E2		$A_2=+0.310$ 4; $A_4=-0.086$ 5 $\alpha(\text{K})\text{exp}=1.2\times 10^{-3}$ 3 B(E2)(W.u.)=28 12 POL=+0.48 4. Additional information 22. δ : $\delta(\text{M3/E2})=+0.02$ +2-3.
1047.9		4919.50	9 ⁻	3871.45	8 ⁺			
1049.4		4294.0		3244.54	6 ⁻			
1051.7		5191.7		4139.96	10 ⁺			
1052.4		4923.88	9 ⁻	3871.45	8 ⁺			
1053.0		4924.5		3871.45	8 ⁺			
1054.2		4141.65	8 ⁻	3087.49	7 ⁻			
1054.4 2	1.40 2	3242.04	5 ⁺	2187.64	4 ⁺	M1+E2	-2.3 +8-25	$A_2=-0.63$ 1; $A_4=+0.12$ 1 POL=+0.23 2. δ : $\delta(\text{M2/E1})=-0.13$ 2. $A_2=-0.24$ 8; $A_4=0.00$ 5 POL=+0.38 8. $A_2=+0.3$ 1; $A_4=+0.5$ 2
1062.4 2	0.31 2	5735.3	(9,11 ⁻)	4672.94	10 ⁺	E1		
1067.3 2	0.13 2	4430.49	7 ⁻	3363.15	6 ⁻			
1071.9		6610.7		5538.8	(9,11 ⁺)			
1077.6		4322.1		3244.54	6 ⁻			
1084.3 3	0.35 2	6266.4	14 ⁺	5182.12	12 ⁺	E2		$A_2=+0.24$ 4; $A_4=-0.15$ 5 POL=+0.6 3. δ : $\delta(\text{M3/E2})=-0.16$ +17-7.
1092.1		5233.79	10 ⁻	4141.65	8 ⁻			
1093.9		4338.5		3244.54	6 ⁻			
1098.4 2	0.66 2	4665.0	9 ⁻	3566.61	7 ⁻	E2		$A_2=+0.23$ 2; $A_4=-0.07$ 3 POL=+0.47 5.
1103.5 2	0.34 2	5776.46	12 ⁺	4672.94	10 ⁺	E2		$A_2=+0.16$ 3; $A_4=-0.02$ 5 POL=+0.40 5.
1104.2		6067.9		4963.6	11 ⁻			
1109.7		3297.3		2187.64	4 ⁺			
1122.3 1	0.36 2	3397.23	(3,4) ⁻	2274.92	3 ⁻			$A_2=-0.31$ 4; $A_4=+0.06$ 5 POL=+0.02 6.
1125.6 3	0.46 2	5214.5	(10) ⁺	4088.85	8 ⁺			$A_2=+0.19$ 3; $A_4=-0.19$ 4 POL=+0.44 6.
1129.6		4789.1		3659.54	6 ⁺			
1129.9		5801.3		4670.3				
1132.3		5445.4		4313.1	7 ⁺			
1142.4 3	0.14 2	6690.6	(13) ⁻	5548.36	12 ⁺	E1		$A_2=-0.17$ 6; $A_4=+0.01$ 9 POL=+0.51 9.
1152.7 2	0.29 2	4624.1	7 ⁻	3471.4	6 ⁺	E1		$A_2=-0.14$ 5; $A_4=+0.04$ 7 POL=+0.2 1.
1153.9 2	0.77 2	2453.82	2 ⁺	1299.91	2 ⁺	M1+E2	-2.8 +18-95	$A_2=-0.08$ 2; $A_4=+0.02$ 3 POL=+0.02 4.
1158.6		4669.59	8 ⁻	3510.94	9 ⁻			
1159.4 2	0.58 4	6341.6	14 ⁺	5182.12	12 ⁺			$A_2=+0.51$ 5; $A_4=+0.05$ 7
1159.6 2	1.45 4	5299.6	11 ⁺	4139.96	10 ⁺	M1+E2	+3.7 +12-17	$A_2=+0.24$ 2; $A_4=+0.28$ 2 B(M1)(W.u.)=0.004 3; B(E2)(W.u.)=31 14 POL=-0.09 2. Additional information 23.

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$^{112}\text{Cd}(\alpha, 2n\gamma)$ **1995Wi15,1994Sc04,1979Br07** (continued) $\gamma(^{114}\text{Sn})$ (continued)

E_γ †	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.‡	$\delta^\ddagger$	Comments
1160.4		4671.3	10 ⁻	3510.94	9 ⁻			
1163.2 2	0.59 2	4313.1	7 ⁺	3149.91	6 ⁺	M1+E2	+0.5 +5-2	A ₂ =+0.19 2; A ₄ =+0.16 3 POL=-0.16 6.
1168.3		5597.0		4428.7				
1168.7		6132.4		4963.6	11 ⁻			
1183.6 2	0.58 2	5055.1	9 ⁻	3871.45	8 ⁺	E1		A ₂ =-0.18 2; A ₄ =+0.01 3 POL=+0.42 5.
1184.3		5857.3		4672.94	10 ⁺			
1199.7		4766.3		3566.61	7 ⁻			
1205.8 2	0.35 2	4923.88	9 ⁻	3717.97	7 ⁻	E2		A ₂ =+0.17 3; A ₄ =-0.02 5 POL=+0.2 1.
1207.0		4718.0		3510.94	9 ⁻			
1207.4		4449.4		3242.04	5 ⁺			
1207.4		5349.1		4141.65	8 ⁻			
1209.9		3484.8		2274.92	3 ⁻			
1210.3		6174.0		4963.6	11 ⁻			
1212.8		3487.7		2274.92	3 ⁻			
1214.1		4403.1		3189.00	6 ⁺			
1225.6 2	0.43 2	4736.54	10 ⁻	3510.94	9 ⁻	M1+E2	+3.9 +21-34	A ₂ =+0.32 3; A ₄ =+0.28 4 POL=-0.22 8.
1228.0 2	0.33 2	4043.24	5 ⁻	2815.24	5 ⁻	M1+E2	+0.6 2	A ₂ =+0.36 4; A ₄ =-0.07 5 POL=+0.20 8.
1240.2		3479.1	(2 ⁺)	2238.88	2 ⁺			
1241.0		3479.9		2238.88	2 ⁺			
1241.4 2	0.23 2	4430.49	7 ⁻	3189.00	6 ⁺			A ₂ =-0.33 9; A ₄ =+0.1 1 POL=+0.1 1.
1249.7 1	0.23 2	3524.63	(2,3,4) ⁻	2274.92	3 ⁻			A ₂ =-0.56 5; A ₄ =-0.28 7 POL=-0.1 2.
1255.7		4766.7		3510.94	9 ⁻			
1262.4		5233.79	10 ⁻	3971.38	8 ⁻			
1270.6		4515.2		3244.54	6 ⁻			
1283.4		5956.4		4672.94	10 ⁺			
1283.8 3	1.62 2	3471.4	6 ⁺	2187.64	4 ⁺	E2		A ₂ =+0.274 8; A ₄ =-0.08 1 B(E2)(W.u.)=9.885 12 POL=+0.45 4. δ : $\delta(\text{M3/E2})=-0.01$ 5.
1296.4		5014.4		3717.97	7 ⁻			
1299.9 1	100.0 6	1299.91	2 ⁺	0.0	0 ⁺	E2		A ₂ =+0.150 1; A ₄ =-0.033 1 $\alpha(\text{K})\text{exp}=0.62\times 10^{-3}$ 12 B(E2)(W.u.)=15 5 POL=+0.20 2. Additional information 1.
1314.5 10	15.6 1	2614.46	4 ⁺	1299.91	2 ⁺	E2		$\alpha(\text{K})\text{exp}=0.5\times 10^{-3}$ 2 A ₂ =+0.285 2; A ₄ =-0.084 2 B(E2)(W.u.)=3 3 POL=+0.41 4. Additional information 5.
1315.6		6279.28	13 ⁻	4963.6	11 ⁻			
1338.0		4527.0		3189.00	6 ⁺			
1339.3		4583.9		3244.54	6 ⁻			
1343.1		5214.5	(10) ⁺	3871.45	8 ⁺			
1347.8		4858.8		3510.94	9 ⁻			
1353.0 2	0.08 1	4919.50	9 ⁻	3566.61	7 ⁻			A ₂ =+0.6 2; A ₄ =0.0 2
1387.4		4858.8		3471.4	6 ⁺			

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$^{112}\text{Cd}(\alpha, 2n\gamma)$ **1995Wi15,1994Sc04,1979Br07 (continued)** $\gamma(^{114}\text{Sn})$ (continued)

E_γ †	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	$\delta^\ddagger$	Comments
1401.1		5372.5		3971.38	8 ⁻			
1403.5 3	0.58 2	4553.4	8 ⁺	3149.91	6 ⁺	E2		$A_2=+0.32$ 2; $A_4=-0.10$ 3 POL=+0.42 9. $\delta: \delta(\text{M3/E2})=+0.05$ +5-7.
1404.6		4593.6		3189.00	6 ⁺			
1405.7 2	0.99 2	4916.6	10 ⁻	3510.94	9 ⁻	M1+E2	+0.8 +46-2	$A_2=+0.29$ 1; $A_4=+0.23$ 2 POL=-0.17 4.
1405.8		4221.02	6 ⁻	2815.24	5 ⁻			
1408.4		4919.50	9 ⁻	3510.94	9 ⁻			
1409.1		5280.6		3871.45	8 ⁺			
1413.0 2	0.40 2	4923.88	9 ⁻	3510.94	9 ⁻	M1+E2	-0.77 +11-7	$A_2=+0.01$ 3; $A_4=-0.12$ 5 POL=+0.26 8.
1423.1 2	0.65 2	3610.73	5 ⁽⁻⁾	2187.64	4 ⁺			$A_2=-0.18$ 7; $A_4=0.00$ 2 POL=+0.15 4.
1423.4		3698.3		2274.92	3 ⁻			
1424.1		4613.1		3189.00	6 ⁺			
1424.6		4787.8		3363.15	6 ⁻			
1425.1		4669.59	8 ⁻	3244.54	6 ⁻			
1432.5 2		4046.92	5 ⁻	2614.46	4 ⁺			
1445.4		3720.3		2274.92	3 ⁻			
1452.7 3	2.73 3	4963.6	11 ⁻	3510.94	9 ⁻	E2		B(E2)(W.u.)=9 4 $A_2=+0.322$ 7; $A_4=-0.095$ 9 POL=+0.44 4. Additional information 21.
1459.8		2759.7		1299.91	2 ⁺			
1461.7		4650.7		3189.00	6 ⁺			
1465.7 2	2.12 2	2765.61	4 ⁺	1299.91	2 ⁺	E2		$A_2=+0.260$ 7; $A_4=-0.054$ 9 B(E2)(W.u.)=2.0 9 POL=+0.33 4. Additional information 6.
1471.9 2	1.21 2	3659.54	6 ⁺	2187.64	4 ⁺			$A_2=+0.25$ 1; $A_4=-0.08$ 2 POL=+0.41 5.
1479.0		4669.59	8 ⁻	3190.52	8 ⁻			
1480.8 3	1.70 2	4671.3	10 ⁻	3190.52	8 ⁻	E2		$A_2=+0.312$ 8; $A_4=-0.11$ 1 POL=+0.45 5. Mult.: $\delta(\text{M3/E2})=+0.03$ 3.
1487.8		4732.4		3244.54	6 ⁻			
1489.2		6225.7		4736.54	10 ⁻			
1494.2		4683.2		3189.00	6 ⁺			
1496.7 2	0.28 2	6460.4	(13) ⁻	4963.6	11 ⁻	E2		$A_2=+0.27$ 4; $A_4=+0.03$ 6 POL=+0.3 1.
1538.0		4152.5		2614.46	4 ⁺			
1546.0 2	1.68 2	4736.54	10 ⁻	3190.52	8 ⁻	E2		$A_2=+0.306$ 8; $A_4=-0.09$ 1 POL=+0.44 5.
1556.9		6520.6		4963.6	11 ⁻			
1560.7 2	1.57 2	2860.62	4 ⁺	1299.91	2 ⁺			$A_2=+0.184$ 9; $A_4=-0.05$ 1 POL=+0.35 4.
1582.1 2	0.25 2	4669.59	8 ⁻	3087.49	7 ⁻	M1+E2	+0.7 +96-3	$A_2=+0.50$ 5; $A_4=+0.07$ 7 POL=-0.6 3.
1584.1 2	0.48 2	5095.1	(10 ⁻)	3510.94	9 ⁻	M1+E2	+1.8 +31-11	$A_2=+0.43$ 3; $A_4=+0.01$ 4 POL=-0.5 1.
1601.1		4964.3		3363.15	6 ⁻			
1608.9		5119.9		3510.94	9 ⁻			
1613.5		5124.5		3510.94	9 ⁻			
1614.8		4430.1		2815.24	5 ⁻			
1615.4		4430.49	7 ⁻	2815.24	5 ⁻			

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$^{112}\text{Cd}(\alpha, 2n\gamma)$ **1995Wi15,1994Sc04,1979Br07** (continued) $\gamma(^{114}\text{Sn})$ (continued)

$E_\gamma^\dagger$	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [‡]	$\delta^\ddagger$	Comments
1636.5 3	0.24 2	5776.46	12 ⁺	4139.96	10 ⁺	E2		$A_2=+0.27$ 5; $A_4=-0.03$ 7 POL=+0.6 1. δ : $\delta(\text{M3/E2})=-0.1$ +5-1.
1643.8		2943.7	2 ⁺	1299.91	2 ⁺			
1671.7		5182.7		3510.94	9 ⁻			
1676.2		5039.4		3363.15	6 ⁻			
1676.8		4492.1		2815.24	5 ⁻			
1702.8 3	0.31 2	5213.8	(8,10) ⁺	3510.94	9 ⁻	(E1)		$A_2=-0.20$ 5; $A_4=-0.003$ 79 POL=+0.3 1. δ : $\delta(\text{M2/E1})=+0.01$ +6-10. $A_2=+0.16$ 1; $A_4=-0.16$ 2 POL=+0.49 6.
1710.9 3	1.16 2	5221.9	(11) ⁻	3510.94	9 ⁻	E2		
1722.8		5233.79	10 ⁻	3510.94	9 ⁻			
1729.0		4919.50	9 ⁻	3190.52	8 ⁻			
1730.2		5095.1	(10 ⁻)	3364.9				
1733.3		4923.88	9 ⁻	3190.52	8 ⁻			
1738.0		4927.0		3189.00	6 ⁺			
1744.2 3	0.31 2	5255.2	(8,10) ⁺	3510.94	9 ⁻	(E1)		$A_2=-0.59$ 7; $A_4=+0.12$ 9 POL=+0.14 7.
1746.8		5886.8		4139.96	10 ⁺			
1771.5		3071.4		1299.91	2 ⁺			
1785.6		5296.6		3510.94	9 ⁻			
1800.0 2	0.30 2	5310.9	(8,10) ⁺	3510.94	9 ⁻	E1		$A_2=-0.22$ 4; $A_4=-0.02$ 6 POL=+0.3 1. $A_2=+0.36$ 6; $A_4=-0.10$ 8 POL=+0.5 2. $A_2=+0.42$ 7; $A_4=-0.2$ 1 POL=+0.6 2.
1832.0 2	0.23 2	4919.50	9 ⁻	3087.49	7 ⁻	E2		
1834.5 2	0.17 2	5974.5	(12) ⁺	4139.96	10 ⁺	(E2)		
1836.4		4923.88	9 ⁻	3087.49	7 ⁻			
1846.5 2	0.25 2	5357.5	(8,10) ⁺	3510.94	9 ⁻	(E1)		$A_2=-0.39$ 5; $A_4=+0.12$ 7 POL=+0.14 9. $A_2=-0.34$ 5; $A_4=-0.02$ 7 POL=+0.2 1. $A_2=+0.24$ 5; $A_4=+0.04$ 7 POL=+0.5 1.
1859.3 2	0.26 2	4046.92	5 ⁻	2187.64	4 ⁺			
1907.1 2	0.25 2	3207.03	(2) ⁺	1299.91	2 ⁺	M1+E2	0.0 1	
1925.8		3225.8		1299.91	2 ⁺			
1940.3		4678.7		2738.4				
1977.4 2	0.35 2	5488.3	(9,11) ⁻	3510.94	9 ⁻			$A_2=+0.19$ 4; $A_4=-0.18$ 6 POL=+0.4 2.
1989.4		5500.4		3510.94	9 ⁻			
2023.4		5419.6		3396.2				
2024.6		5535.6		3510.94	9 ⁻			
2057.1 2	0.24 2	3357.03	(2) ⁺	1299.91	2 ⁺	M1+E2	+0.2 2	$A_2=+0.39$ 4; $A_4=-0.03$ 6 POL=+0.4 1. $A_2=-0.43$ 8; $A_4=0.0$ 1 POL=+0.6 2.
2117.2 2	0.15 2	5628.2	(8,10) ⁺	3510.94	9 ⁻	E1		
2196.5		5707.5		3510.94	9 ⁻			
2238.9		2238.88	2 ⁺	0.0	0 ⁺			
2324.2 2	0.11 2	5835.2	(8,10) ⁻	3510.94	9 ⁻			$A_2=-0.5$ 1; $A_4=+0.2$ 1 POL=+0.1 2.
2490.4		6001.4		3510.94	9 ⁻			

[†] Uncertainty of 0.1 to 0.3 keV assigned by evaluators is based on a general statement by [1995Wi15](#).[‡] From $\gamma(\theta)$ and $\gamma(\text{lin pol})$ data. Estimated $\delta(\text{M3/E2})$ and $\delta(\text{M2/E1})$, given under comments, are from [1994Sc04](#), $\alpha(\text{K})$ exp are from [1979Br07](#) and [1980Va13](#).

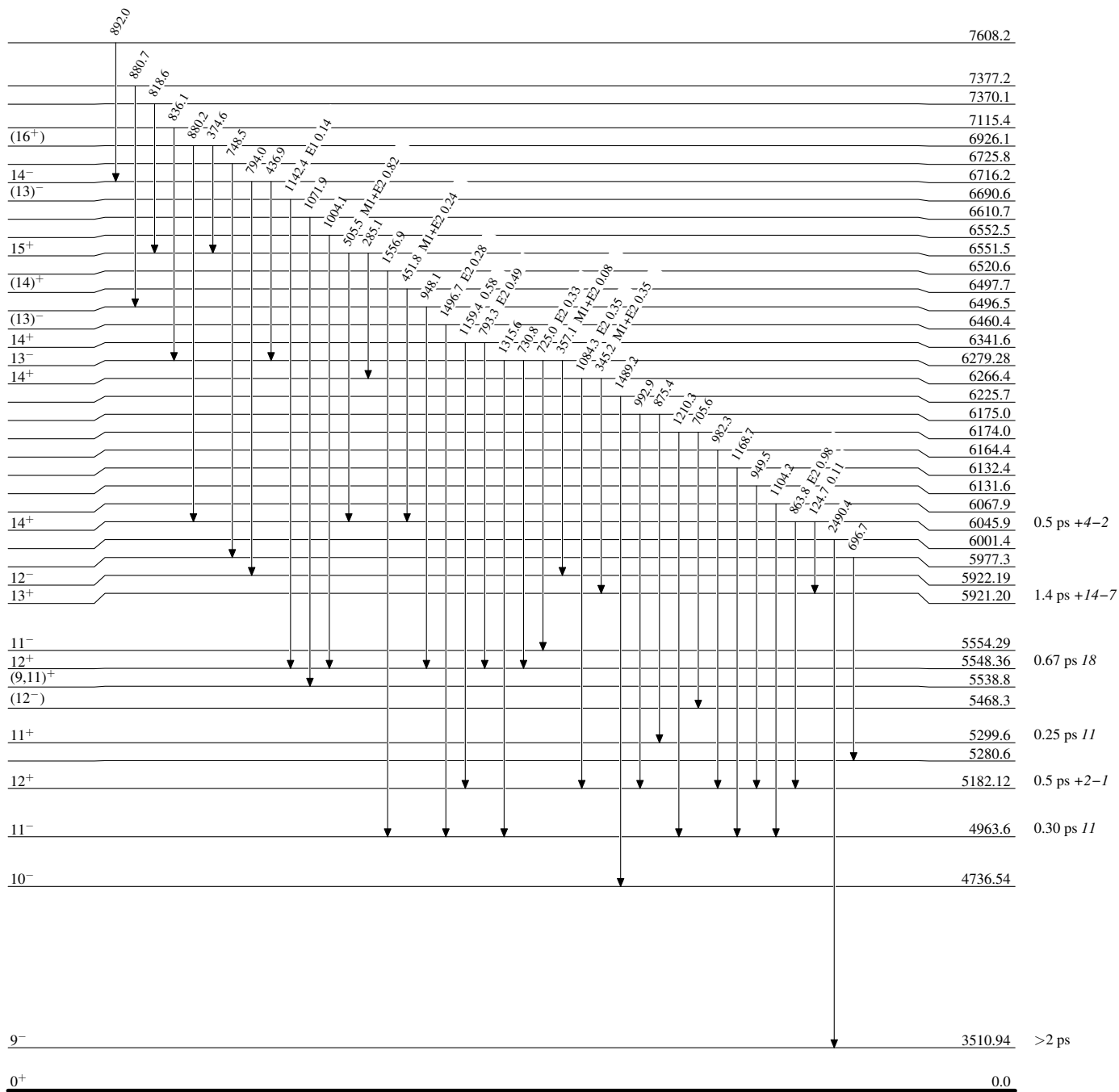
$^{112}\text{Cd}(\alpha, 2n\gamma)$ 1995Wi15, 1994Sc04, 1979Br07

Level Scheme

Intensities: Relative I_γ

Legend

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

 $^{114}_{50}\text{Sn}_{64}$

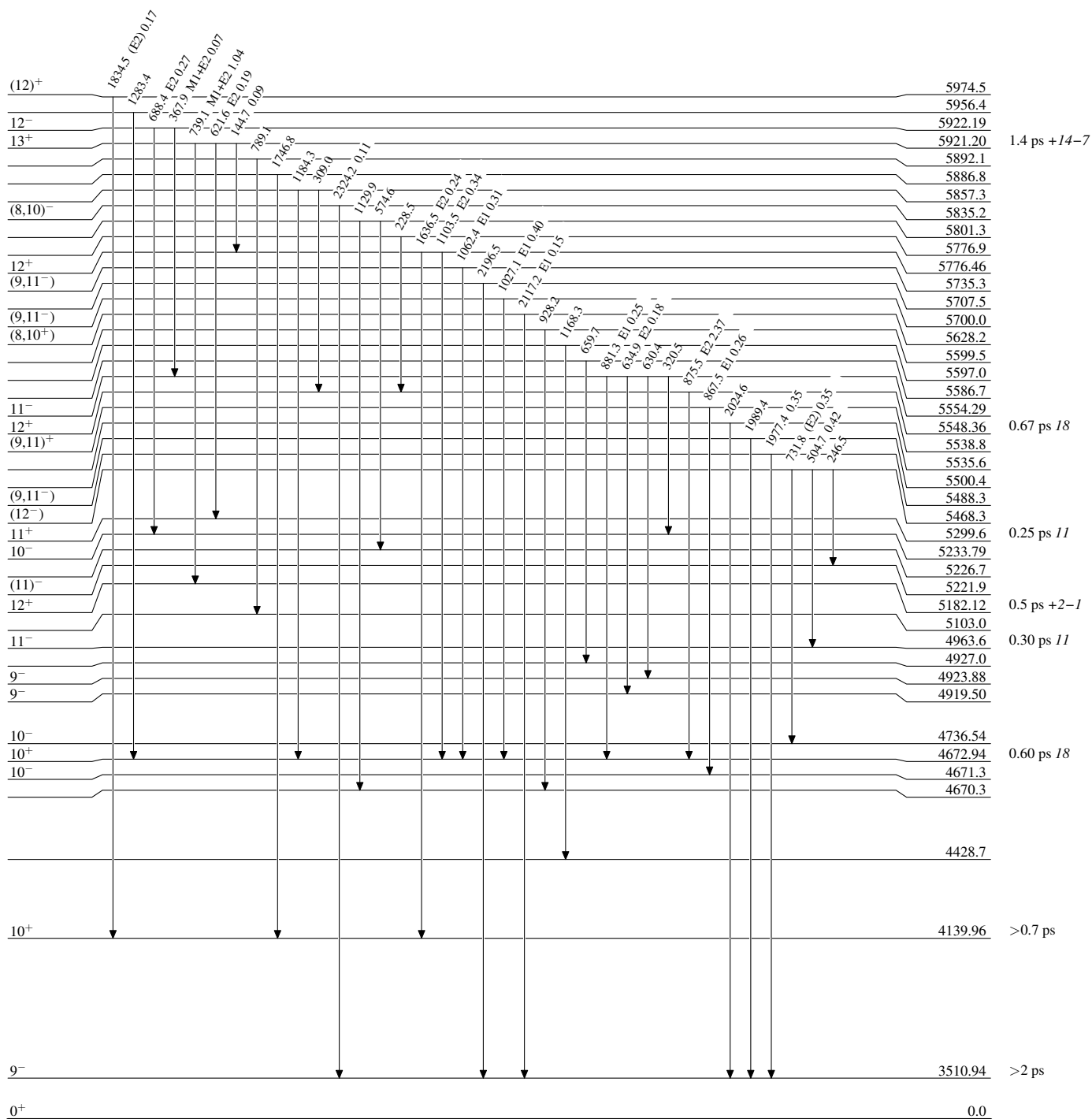
$^{112}\text{Cd}(\alpha,2n\gamma)$ 1995Wi15,1994Sc04,1979Br07

Level Scheme (continued)

Intensities: Relative I_γ

Legend

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



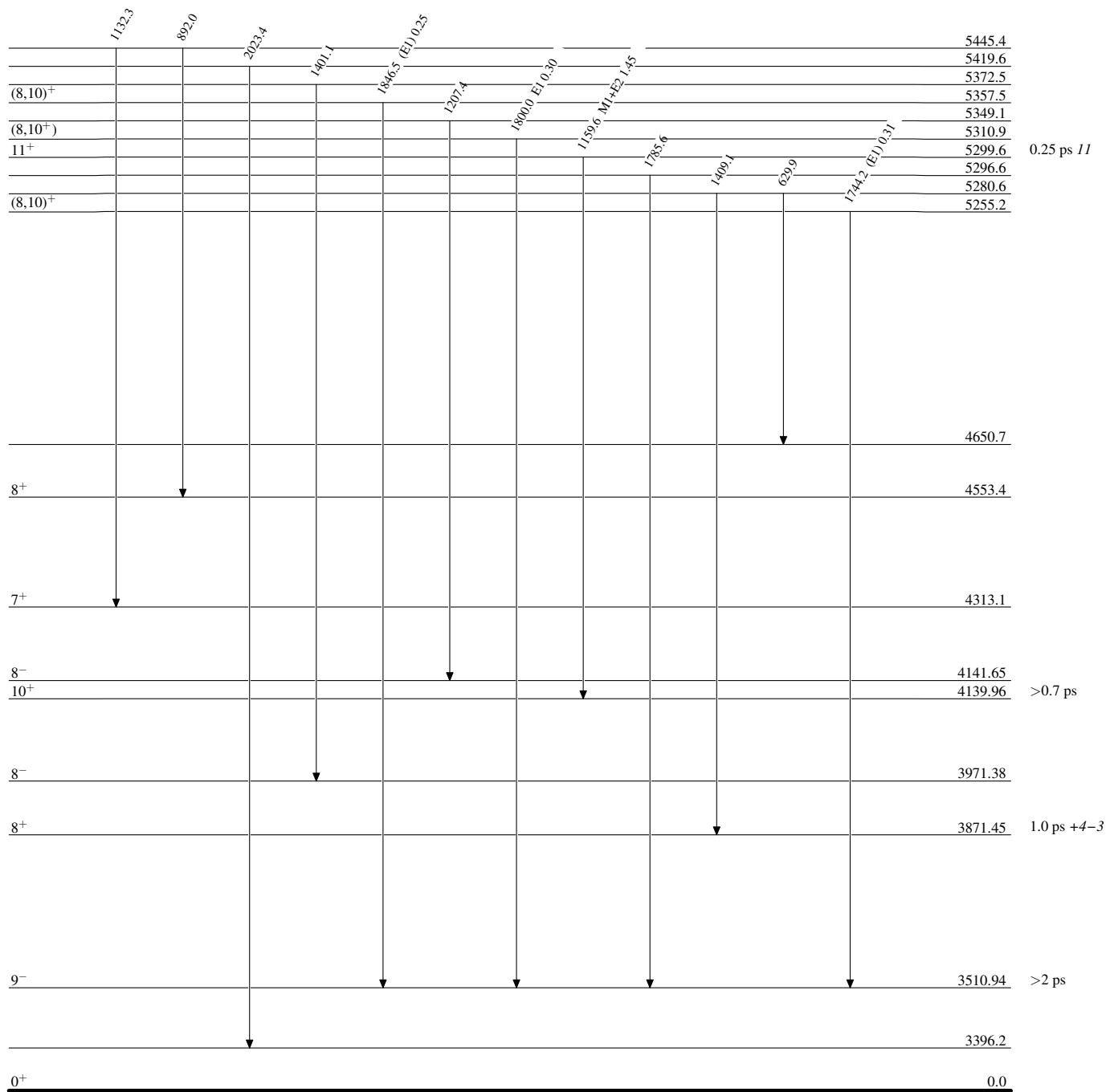
$^{112}\text{Cd}(\alpha,2n\gamma)$ 1995Wi15,1994Sc04,1979Br07

Level Scheme (continued)

Intensities: Relative I_γ

Legend

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


 $^{114}_{50}\text{Sn}_{64}$

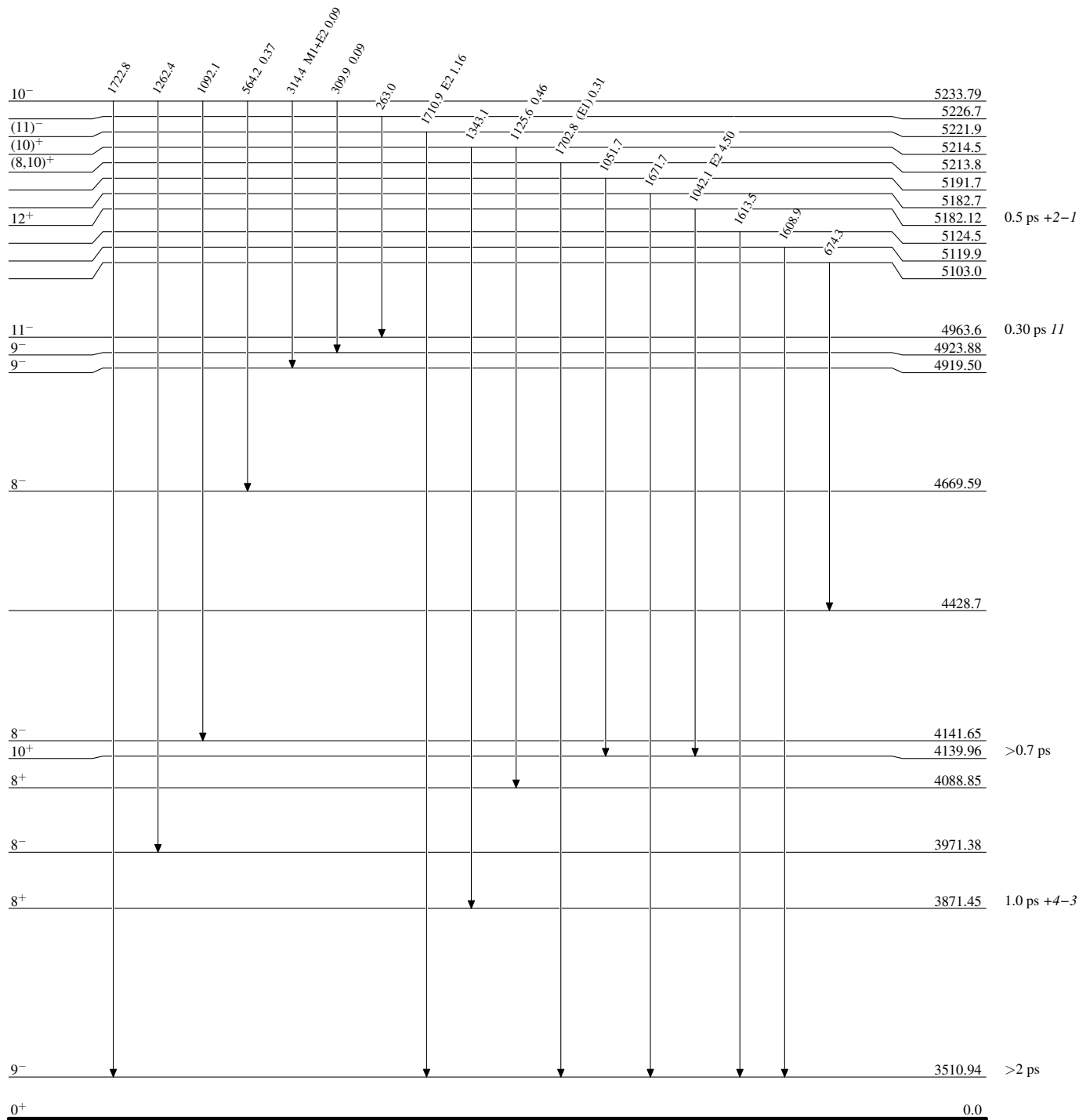
$^{112}\text{Cd}(\alpha,2n\gamma)$ 1995Wi15,1994Sc04,1979Br07

Level Scheme (continued)

Intensities: Relative I_γ

Legend

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 $^{114}_{50}\text{Sn}_{64}$

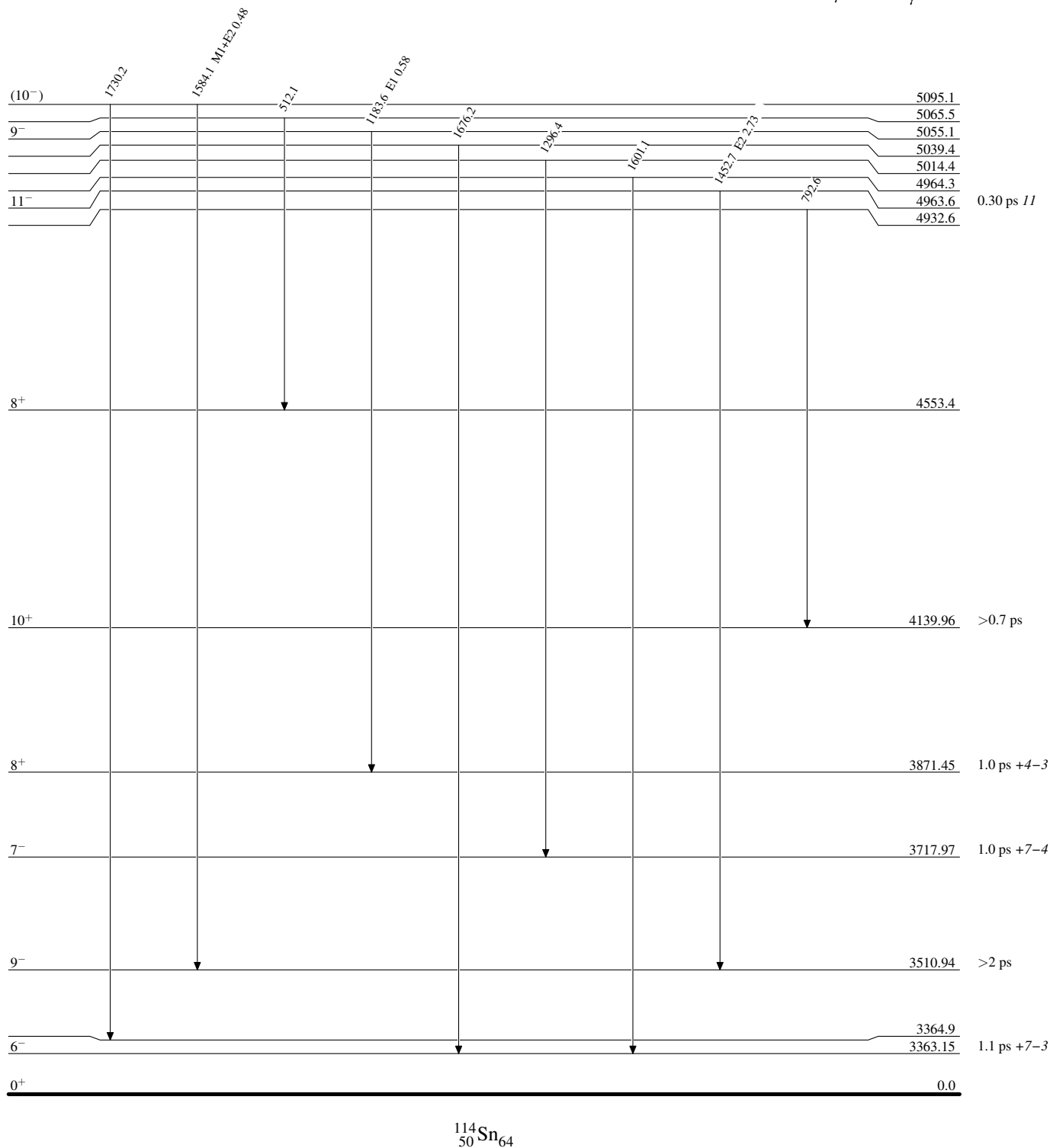
$^{112}\text{Cd}(\alpha,2n\gamma)$ 1995Wi15,1994Sc04,1979Br07

Level Scheme (continued)

Intensities: Relative I_γ

Legend

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


 $^{114}_{50}\text{Sn}_{64}$

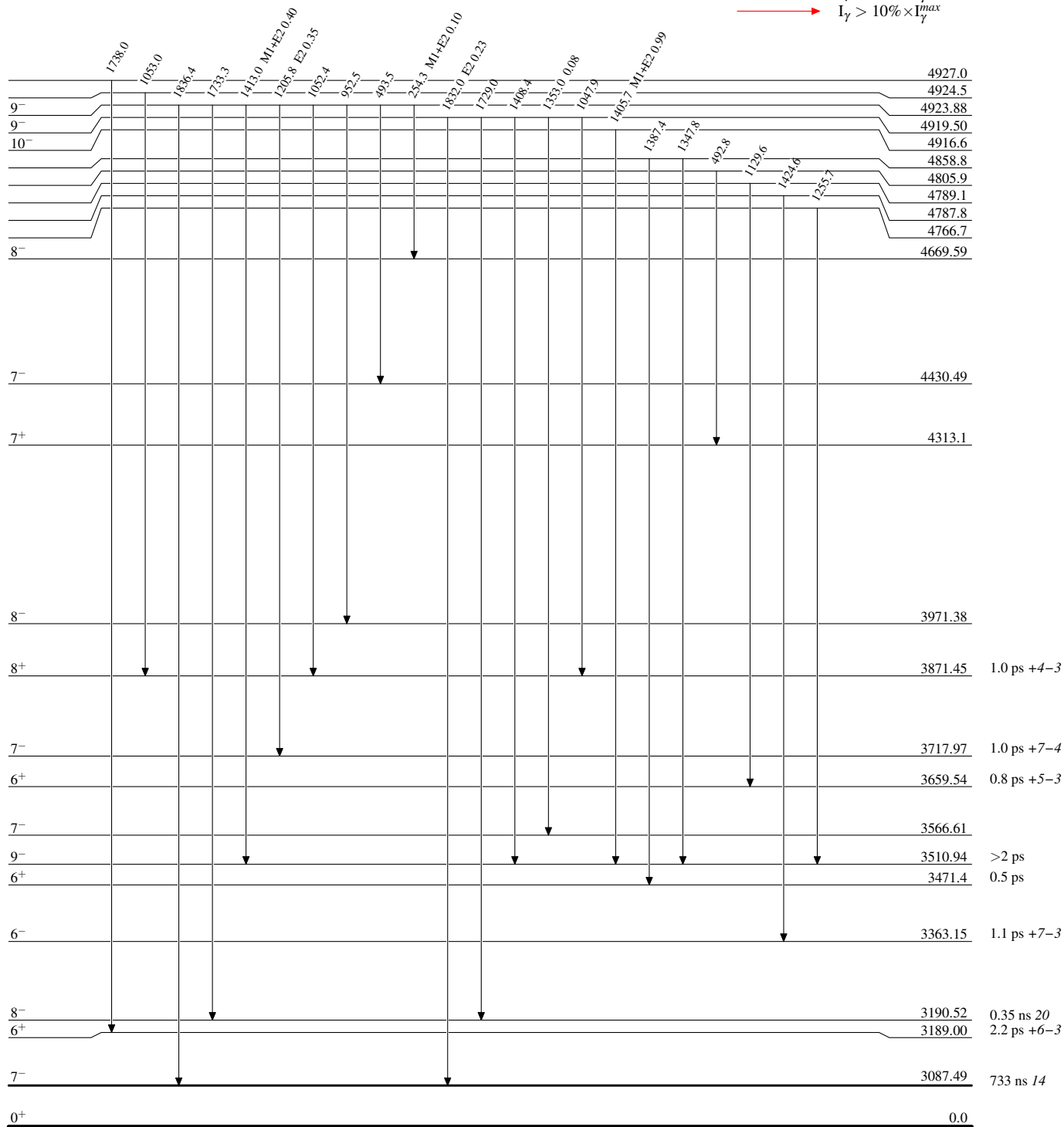
$^{112}\text{Cd}(\alpha,2n\gamma)$ 1995Wi15,1994Sc04,1979Br07

Level Scheme (continued)

Intensities: Relative I_γ

Legend

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



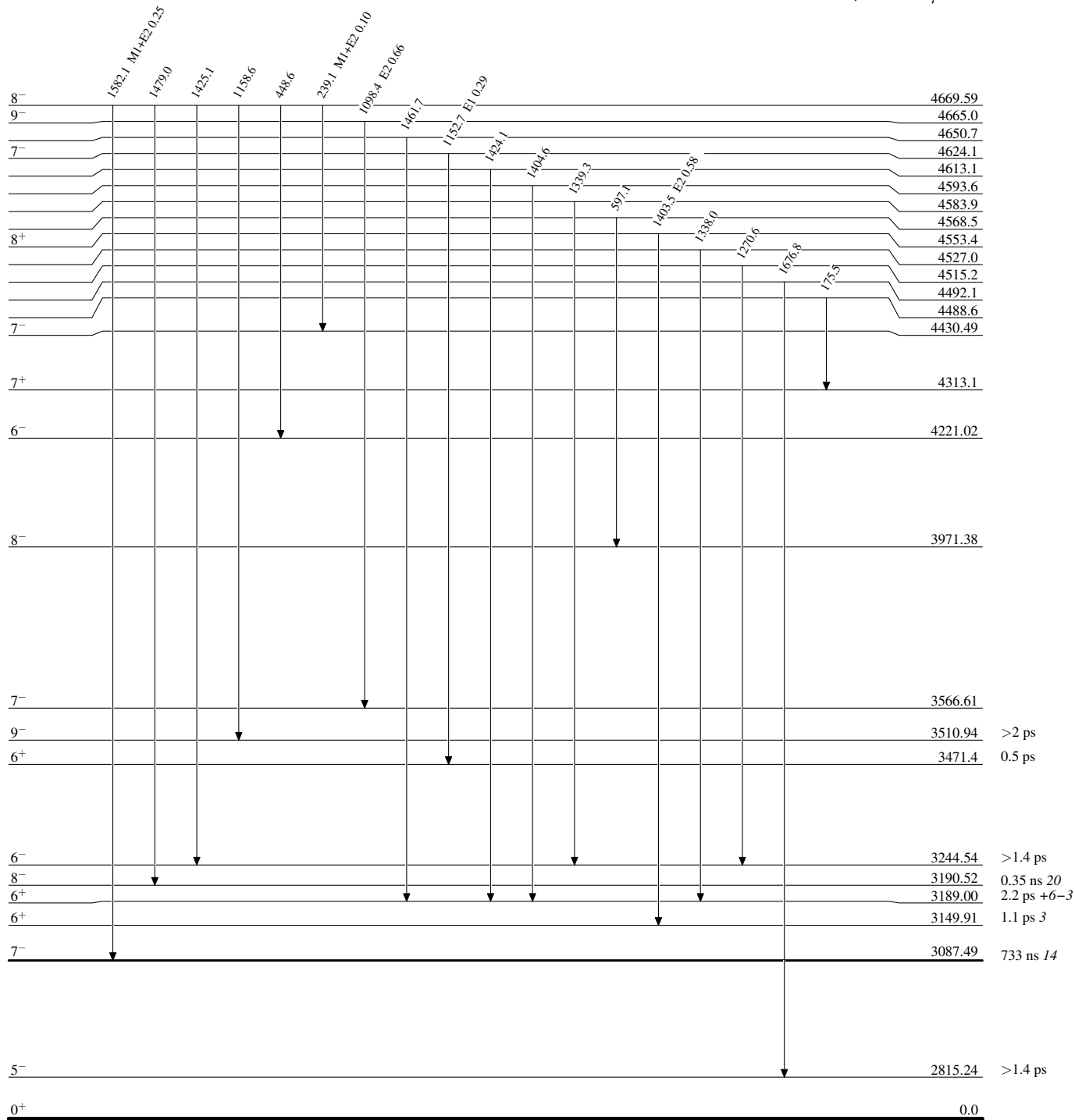
$^{112}\text{Cd}(\alpha, 2n\gamma)$ 1995Wi15, 1994Sc04, 1979Br07

Level Scheme (continued)

Intensities: Relative I_γ

Legend

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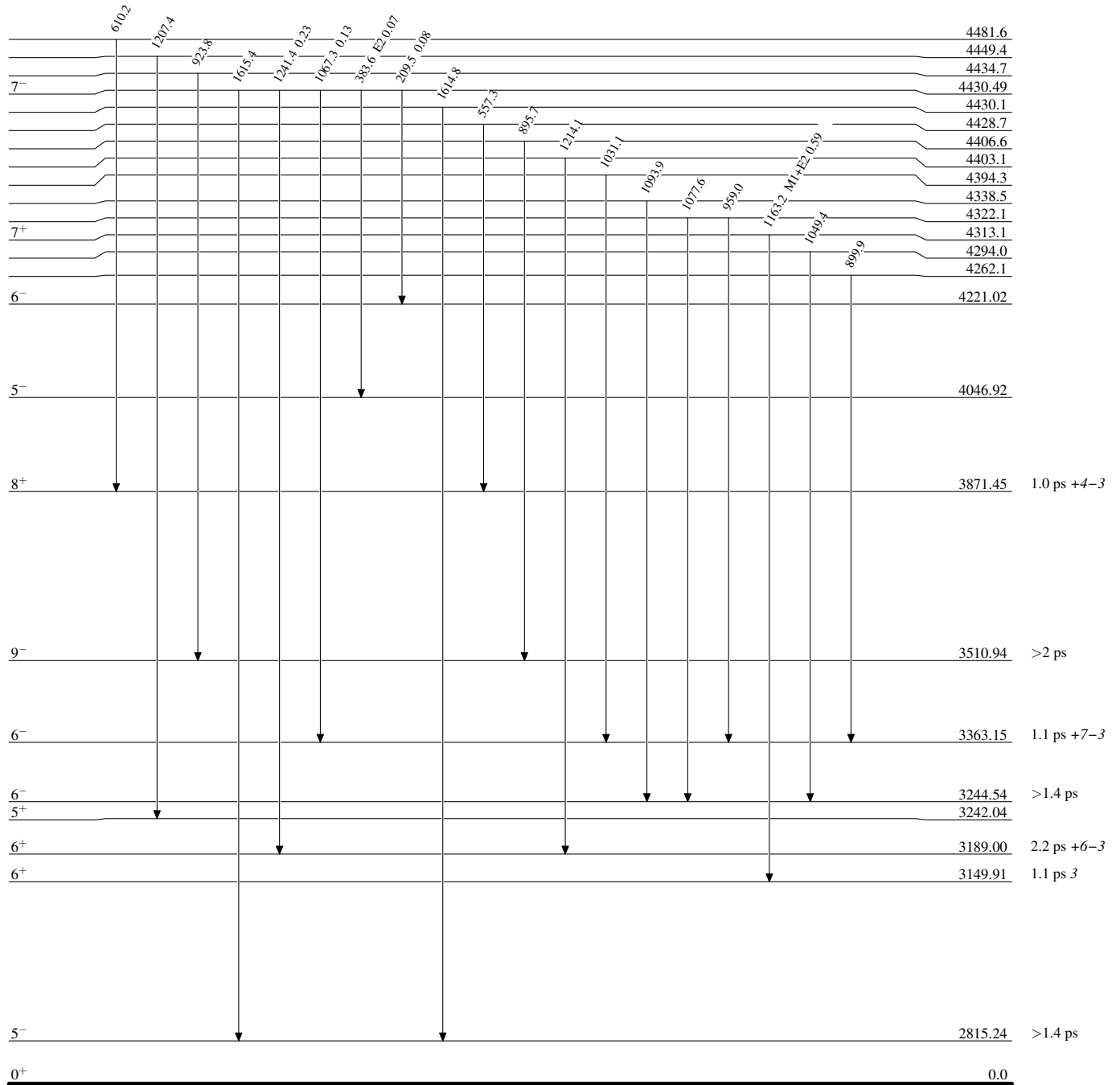
$^{112}\text{Cd}(\alpha, 2n\gamma)$ 1995Wi15, 1994Sc04, 1979Br07

Level Scheme (continued)

Intensities: Relative I_γ

Legend

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

 $^{114}_{50}\text{Sn}_{64}$

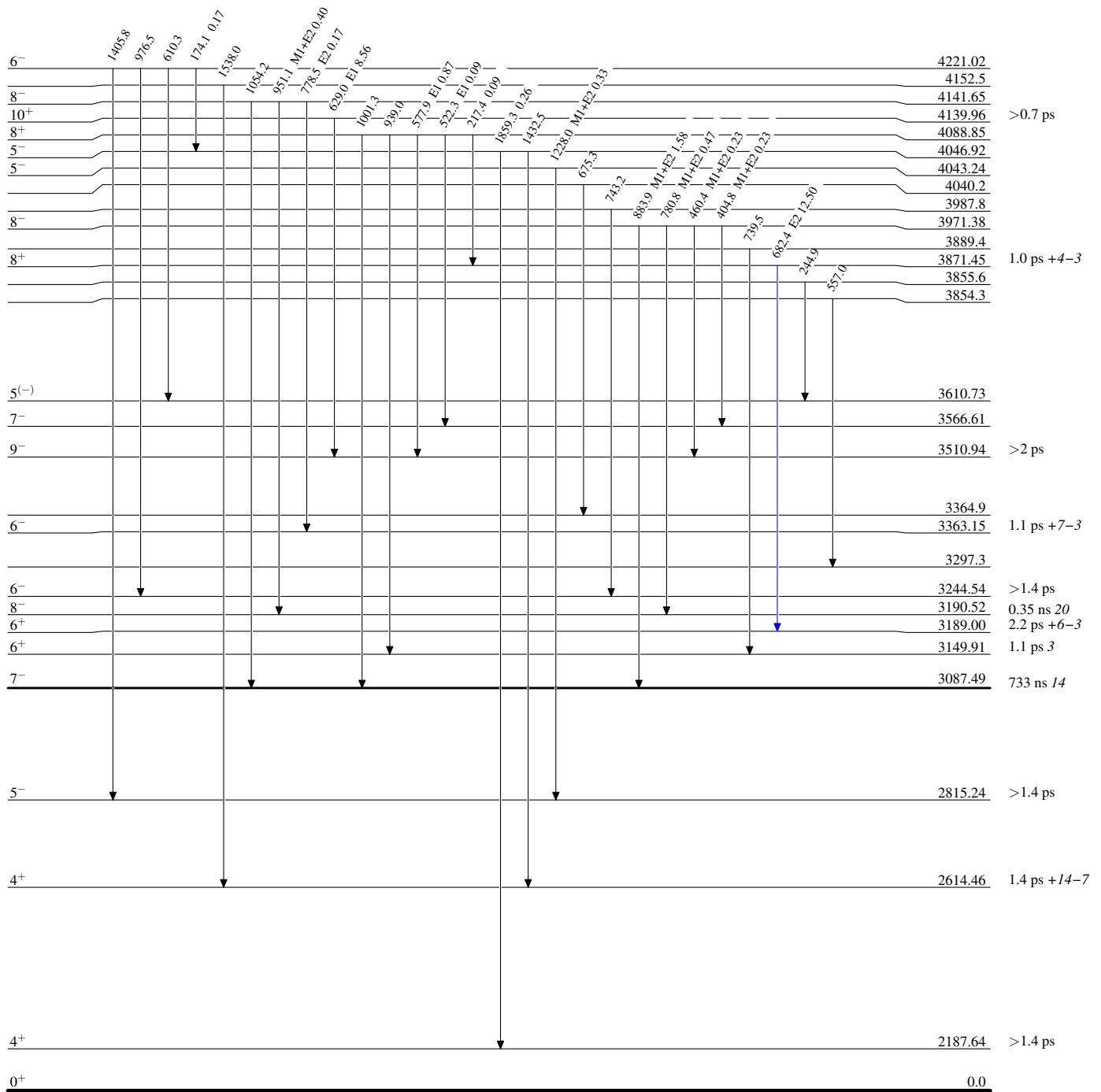
$^{112}\text{Cd}(\alpha,2n\gamma)$ 1995Wi15,1994Sc04,1979Br07

Level Scheme (continued)

Intensities: Relative I_γ

Legend

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 $^{114}_{50}\text{Sn}_{64}$

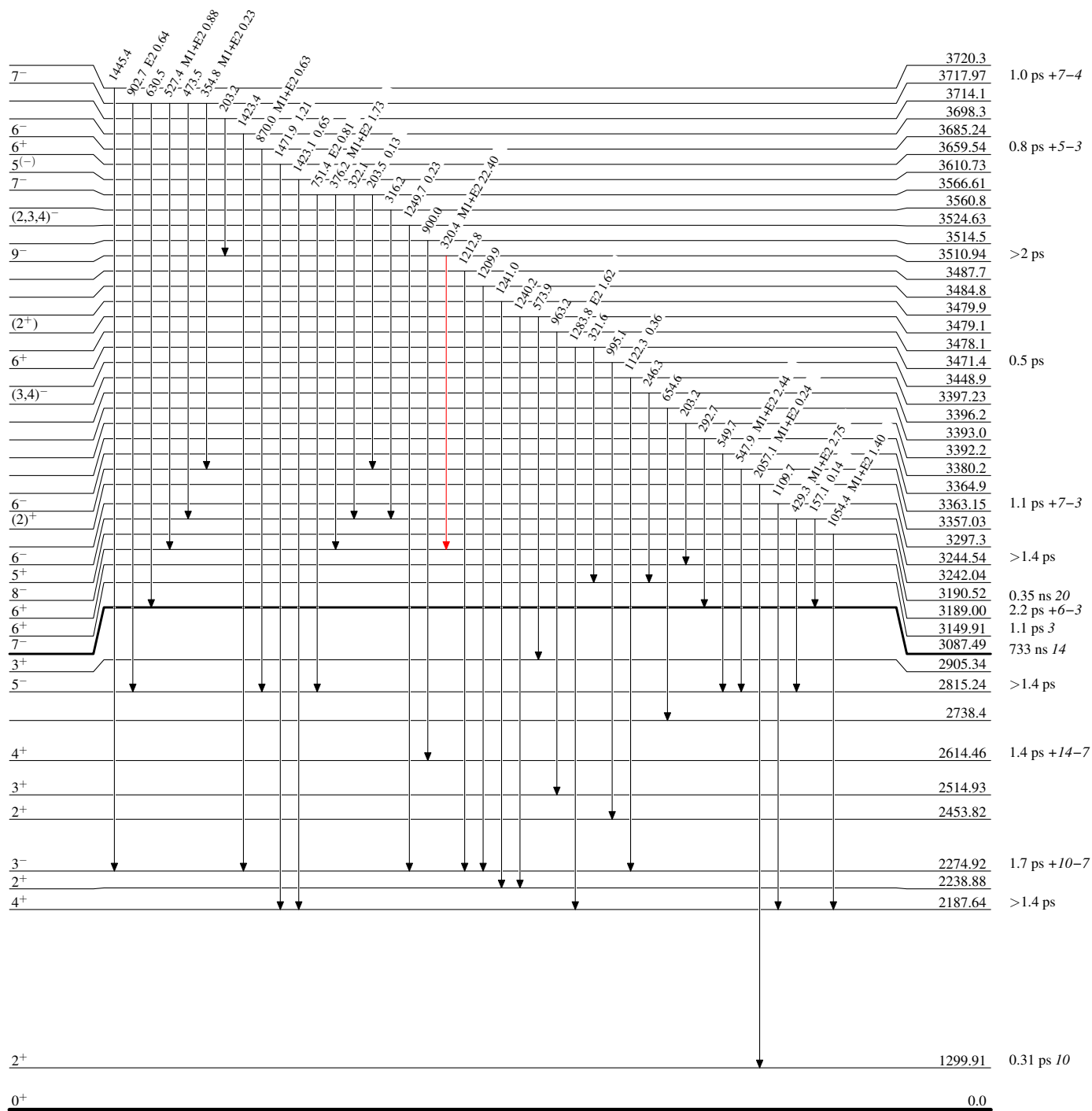
$^{112}\text{Cd}(\alpha, 2n\gamma)$ 1995Wi15, 1994Sc04, 1979Br07

Level Scheme (continued)

Intensities: Relative I_γ

Legend

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 $^{114}_{50}\text{Sn}_{64}$

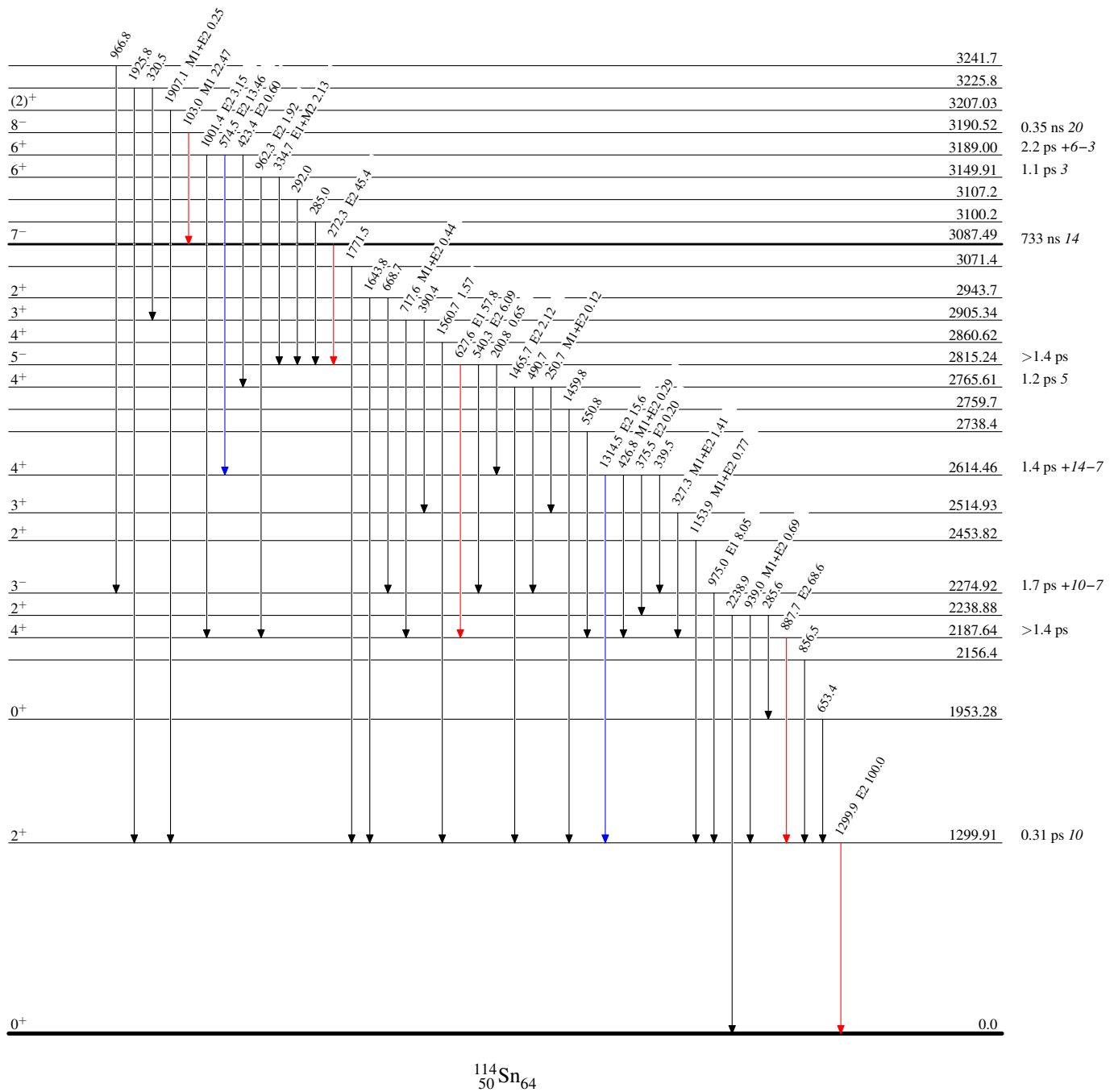
$^{112}\text{Cd}(\alpha, 2n\gamma)$ 1995Wi15, 1994Sc04, 1979Br07

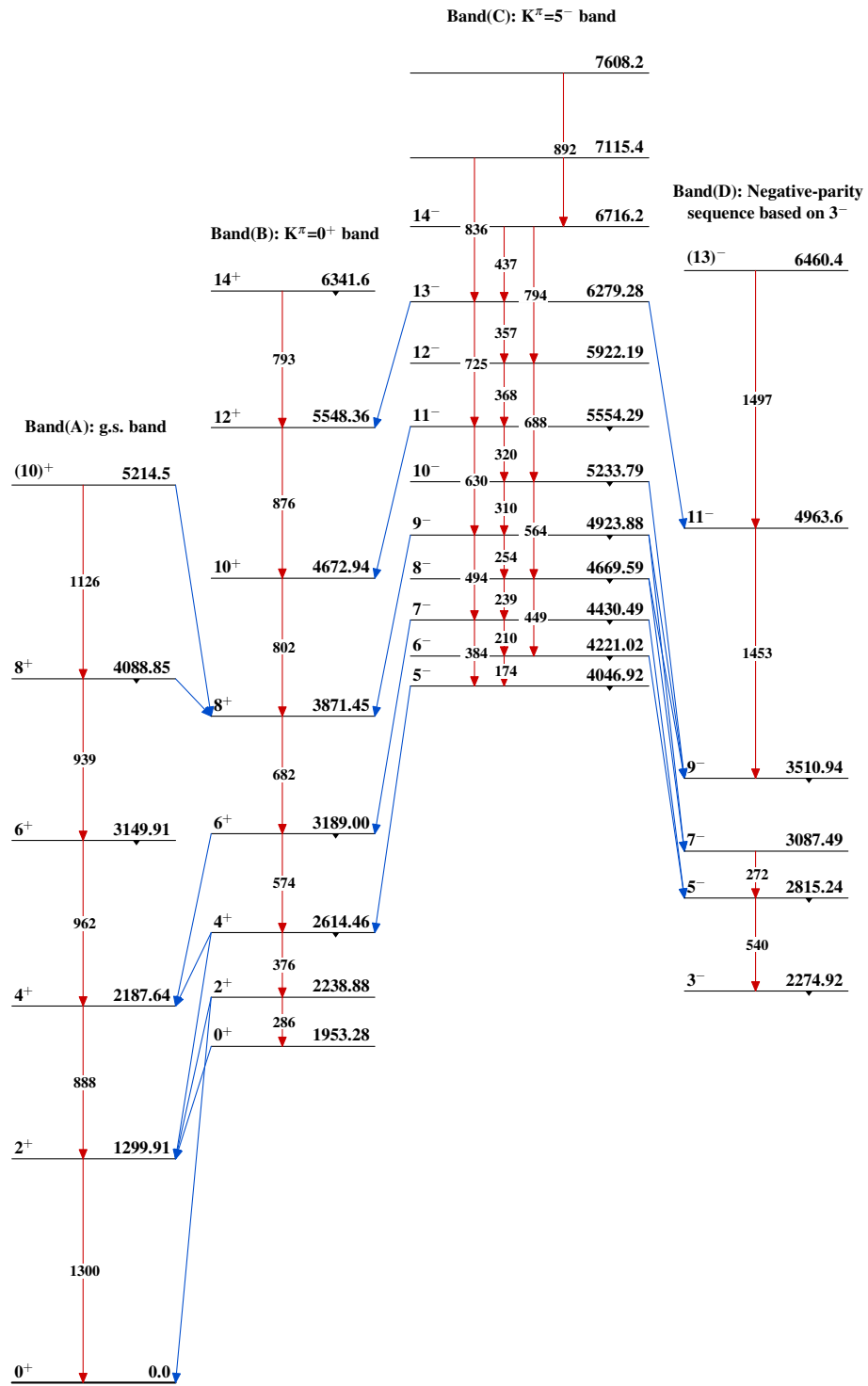
Level Scheme (continued)

Intensities: Relative I_γ

Legend

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



$^{112}\text{Cd}(\alpha, 2n\gamma)$ 1995Wi15,1994Sc04,1979Br07 $^{114}_{50}\text{Sn}_{64}$