

$^{176}\text{Yb}(^9\text{Be}, 5n\gamma)$ [1993YeZX](#), [1993Wa11](#), [2002Fa19](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 126, 151 (2015)	1-Feb-2015

[2002Fa19](#): $E(^9\text{Be})=65$ MeV. Measured $E\gamma$, $I\gamma$ for ground state band transitions using Compton-suppressed HPGe detectors and a fourteen element BGO filter.

[1993YeZX](#), [1993Wa11](#): $E(^9\text{Be})=55$ MeV. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$, $\gamma(\theta)$, $\gamma(t)$ using CAESAR array consisting of six Compton-suppressed HPGe detectors. [1993YeZX](#) is the thesis providing a full description of the experiment whereas [1993Wa11](#) presents a subset of the results.

 ^{180}W Levels

$E(\text{level})^\dagger$	$J^\pi^\ddagger$	$T_{1/2}^\#$	$E(\text{level})^\dagger$	$J^\pi^\ddagger$	$T_{1/2}^\#$	$E(\text{level})^\dagger$	$J^\pi^\ddagger$	$T_{1/2}^\#$
0.0@	0 ⁺		2822.3@	14 ⁺		4415.9 ^d	18 ⁻	
103.5@	2 ⁺		2965.5&	13 ⁺		4455.1 ^a	18 ⁻	
337.5@	4 ⁺		3001.3 ^f	(12 ⁻)		4525	(19)	
688.2@	6 ⁺		3041.7 ^a	14 ⁻		4553.5	(18 ⁻)	
1006.3 ^b	2 ⁻	≈ 5.5 ns	3047.5 ^b	13 ⁻		4606.0&	19 ⁺	
1082.5 ^b	3 ⁻		3175.8&	14 ⁺		4627.8 ^g	19 ⁺	
1138.2@	8 ⁺		3249.3 ^f	(13 ⁻)		4672.3@	20 ⁺	
1184.9 ^b	4 ⁻		3264.0 ^c	14 ⁻		4710.6 ^e	19 ⁻	
1307.8 ^b	5 ⁻		3355.1	(14)		4761 ^b	18 ⁻	
1461.8 ^b	6 ⁻		3367.3 ^a	15 ⁻		4844.9? ^a	(19 ⁻)	
1528.8 ^a	8 ⁻		3388.9	15 ⁺	≈ 3.5 ns	4852.2 ^e	20 ⁻	
1624.1 ^b	7 ⁻		3410.8 ^b	14 ⁻		4856.6	(19 ⁻)	
1640.1 ^f	(5 ⁻)		3412.0@	16 ⁺		5023.9 ^g	20 ⁺	
1663.6@	10 ⁺		3421.2&	15 ⁺		5027 ^b	19 ⁻	
1725.2 ^a	9 ⁻		3528.2	(15)		5028.9? ^d	(20 ⁻)	
1764.9 ^f	(6 ⁻)		3546.9 ^g	16 ⁺	≈ 4.2 ns	5094.8&	20 ⁺	
1830.4 ^b	8 ⁻		3580.7	(15)		5128.2 ^e	21 ⁻	
1911.9 ^f	(7 ⁻)		3605.0	(15)		5177.8	(20 ⁻)	
1944.7 ^a	10 ⁻		3657 ^b	15 ⁻		5339.3&	21 ⁺	
2024.4 ^b	9 ⁻		3695.0&	16 ⁺		5401@	22 ⁺	
2083.3 ^f	(8 ⁻)		3696.9	(16)		5433.8 ^g	21 ⁺	
2132.3&	8 ⁺		3712.2 ^a	16 ⁻		5453.7 ^e	22 ⁻	
2186.6 ^a	11 ⁻		3744.2	(15 ⁻)		5518.1	(21 ⁻)	
2234.9@	12 ⁺		3846 ^f	(15 ⁻)		5745 ^b	(21 ⁻)	
2273.5&	9 ⁺		3887.4 ^g	17 ⁺		5815.2 ^e	23 ⁻	
2274.6 ^f	(9 ⁻)		3897.2 ^d	16 ⁻		5858 ^g	22 ⁺	
2283.6 ^b	10 ⁻		3966.6&	17 ⁺		5876.9	(22 ⁻)	
2423.4&	10 ⁺		4001.2	(16 ⁻)		5974.9	(23 ⁻)	<0.7 ns
2450.6 ^a	12 ⁻		4016.8@	18 ⁺		6114.6	(23 ⁻)	≈ 1.4 ns
2495.3 ^f	(10 ⁻)		4066 ^b	16 ⁻		6162?&	23 ⁺	
2501.0 ^b	11 ⁻		4073.9 ^a	17 ⁻		6207.4 ^e	24 ⁻	
2588.6&	11 ⁺		4147.0 ^d	17 ⁻		6211@	24 ⁺	
2723.8 ^f	(11 ⁻)		4248.0 ^g	18 ⁺		6292? ^g	(23 ⁺)	
2735.7 ^a	13 ⁻		4269.1	(17 ⁻)		6303.8	(24 ⁺)	<0.7 ns
2763.1&	12 ⁺		4320 ^b	17 ⁻		6626.1 ^e	25 ⁻	
2812.9 ^b	12 ⁻		4338.9&	18 ⁺		6733.8	(25 ⁺)	

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$^{176}\text{Yb}(^9\text{Be},5n\gamma)$ **1993YeZX,1993Wa11,2002Fa19 (continued)** ^{180}W Levels (continued)

$E(\text{level})^\dagger$	$J^\pi^\ddagger$
7069.7 ^e	26 ⁻
7100 [@]	26 ⁺
7176.8	(26 ⁺)
8066? [@]	(28 ⁺)

[†] From a least-squares fit to E_γ , by evaluator.

[‡] As given in 1993YeZX.

From centroid-shift analysis in 1993YeZX.

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

& Band(B): $K^\pi=8^+$ band. Interpreted as a Fermi-aligned $i_{13/2}^2$ band with configuration $(\nu 7/2[633])(\nu 9/2[624])$.

^a Band(C): $K^\pi=8^-$ band. $(\nu 9/2[624])(\nu 7/2[514])$ configuration.

^b Band(D): $K^\pi=2^-$ band.

^c $K^\pi=14^-$ bandhead. Four qp-isomer with configuration $(\nu 9/2[624])(\nu 7/2[514])(\pi 7/2[404])(\pi 5/2[402])$.

^d Band(E): $K^\pi=16^-$ band.

^e Band(F): $K^\pi=19^-$ band.

^f Band(G): $K^\pi=(5^-)$ band.

^g Band(H): $K^\pi=16^+$ band.

$\gamma(^{180}\text{W})$								
$E_\gamma^\dagger$	$I_\gamma^\ddagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [#]	I_γ^a	Comments
67		1528.8	8 ⁻	1461.8	6 ⁻			
76.1	12.6 16	1082.5	3 ⁻	1006.3	2 ⁻		8.9 33	
91.3	5.5 10	3355.1	(14)	3264.0	14 ⁻	D+Q		Mult.: $A_2/A_0=-0.96$ 27.
103.5	121 19	103.5	2 ⁺	0.0	0 ⁺		51.4 17	$A_2/A_0=-0.15$ 33.
122.8	17.3 20	1307.8	5 ⁻	1184.9	4 ⁻	D+Q		Mult.: $A_2/A_0=-1.04$ 23.
124.9	25 4	1764.9	(6 ⁻)	1640.1	(5 ⁻)			
125.0	84 13	3388.9	15 ⁺	3264.0	14 ⁻			
139.1	8.4 8	3744.2	(15 ⁻)	3605.0	(15)			$A_2/A_0=+0.15$ 21.
141.2	6.1 5	2273.5	9 ⁺	2132.3	8 ⁺	D+Q&		
141.6	10.8 13	4852.2	20 ⁻	4710.6	19 ⁻			
147.0	15.9 17	1911.9	(7 ⁻)	1764.9	(6 ⁻)	D+Q		Mult.: $A_2/A_0=-0.69$ 21.
150.0	4.9 6	2423.4	10 ⁺	2273.5	9 ⁺	D+Q		Mult.: $A_2/A_0=-0.23$ 24.
154.0	1.5 5	1461.8	6 ⁻	1307.8	5 ⁻			
158.0	33.5 14	3546.9	16 ⁺	3388.9	15 ⁺			$A_2/A_0=+0.26$ 18.
159.7	6.7 7	5974.9	(23 ⁻)	5815.2	23 ⁻			$A_2/A_0=-0.15$ 23.
162.0	1.6 4	1624.1	7 ⁻	1461.8	6 ⁻			
165.1	12.7 6	2588.6	11 ⁺	2423.4	10 ⁺	D+Q		Mult.: $A_2/A_0=-0.92$ 10.
168.6	3.2 6	3696.9	(16)	3528.2	(15)			
171.3	5.8 12	2083.3	(8 ⁻)	1911.9	(7 ⁻)	D+Q		Mult.: $A_2/A_0=-1.3$ 3.
173.2	7.1 9	3528.2	(15)	3355.1	(14)	D+Q		Mult.: $A_2/A_0=-0.41$ 8.
174.5	1.6 3	2763.1	12 ⁺	2588.6	11 ⁺	D+Q&		
178.7	37.3	1184.9	4 ⁻	1006.3	2 ⁻	Q	8 4	Mult.: $A_2/A_0=+0.12$ 10.
189.1		6303.8	(24 ⁺)	6114.6	(23 ⁻)			
191.4	10 3	2274.6	(9 ⁻)	2083.3	(8 ⁻)			
194.0	1.0 5	2024.4	9 ⁻	1830.4	8 ⁻			
196.3	197 3	1725.2	9 ⁻	1528.8	8 ⁻	D+Q	92 6	Mult.: $A_2/A_0=-0.92$ 2.
202.2	8.6 12	2965.5	13 ⁺	2763.1	12 ⁺	D+Q		Mult.: $A_2/A_0=-0.85$ 22.
206.0	1.0 5	1830.4	8 ⁻	1624.1	7 ⁻			

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$^{176}\text{Yb}(^9\text{Be},5n\gamma)$ **1993YeZX,1993Wa11,2002Fa19 (continued)** $\gamma(^{180}\text{W})$ (continued)

E_γ [†]	I_γ [‡]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [#]	I_γ ^a	Comments
216.0	7.4 12	3605.0	(15)	3388.9	15 ⁺			
219.2	86 3	1944.7	10 ⁻	1725.2	9 ⁻	D+Q	56.8 24	Mult.: $A_2/A_0 = -1.04$ 6.
221.0	2.6 9	2495.3	(10 ⁻)	2274.6	(9 ⁻)			
222.1		3264.0	14 ⁻	3041.7	14 ⁻		62 3	
225.2	70 3	1307.8	5 ⁻	1082.5	3 ⁻	Q		Mult.: $A_2/A_0 = 0.15$ 9.
234.0	567 17	337.5	4 ⁺	103.5	2 ⁺	Q	433 12	Mult.: $A_2/A_0 = +0.18$ 6.
237.7	3.9 8	6114.6	(23 ⁻)	5876.9	(22 ⁻)			
241.9	68.5 21	2186.6	11 ⁻	1944.7	10 ⁻	D+Q	24 4	Mult.: $A_2/A_0 = -1.11$ 6.
245.7	1.0 5	3421.2	15 ⁺	3175.8	14 ⁺	D+Q ^{&}		
249.9	10 6	4147.0	17 ⁻	3897.2	16 ⁻			
257.1	14 5	4001.2	(16 ⁻)	3744.2	(15 ⁻)			
264.0		2450.6	12 ⁻	2186.6	11 ⁻			E_γ : included in Fig. 3.1 of 1993YeZX but not listed in author's Table 3.1.
264		3528.2	(15)	3264.0	14 ⁻			
267.7	10.0 13	4269.1	(17 ⁻)	4001.2	(16 ⁻)			
271.7 ^{@d}		3966.6	17 ⁺	3695.0	16 ⁺	(D+Q) ^{&}		
271.8	17 4	1911.9	(7 ⁻)	1640.1	(5 ⁻)			
276.0	14.1 16	5128.2	21 ⁻	4852.2	20 ⁻			
276.8	68 5	4525	(19)	4248.0	18 ⁺			$A_2/A_0 = +0.23$ 1.
276.9	64 5	1461.8	6 ⁻	1184.9	4 ⁻		7.9 20	
284.3	27 7	4553.5	(18 ⁻)	4269.1	(17 ⁻)			$A_2/A_0 = -0.3$ 5.
285.0	12.8 7	2735.7	13 ⁻	2450.6	12 ⁻		48.1 32	
294.8	6.1 11	4710.6	19 ⁻	4415.9	18 ⁻			
298.4	3.2 6	3264.0	14 ⁻	2965.5	13 ⁺			
299.1		6114.6	(23 ⁻)	5815.2	23 ⁻			
303.2	7.6 13	4856.6	(19 ⁻)	4553.5	(18 ⁻)			
306.0	10.5 6	3041.7	14 ⁻	2735.7	13 ⁻		27.6 17	
308.0	1.8 7	3696.9	(16)	3388.9	15 ⁺			
315.4	1.9 6	2588.6	11 ⁺	2273.5	9 ⁺	Q ^{&}		
316.6		1624.1	7 ⁻	1307.8	5 ⁻			E_γ : included in Fig. 3.1 of 1993YeZX but not listed in author's Table 3.1.
316.7 ^b	144 ^b 8	3580.7	(15)	3264.0	14 ⁻			
316.7 ^b	144 ^b 8	3897.2	16 ⁻	3580.7	(15)			
318.3	25 6	2083.3	(8 ⁻)	1764.9	(6 ⁻)			
321.3	10.1 17	5177.8	(20 ⁻)	4856.6	(19 ⁻)			
325.5	10.6 10	5453.7	22 ⁻	5128.2	21 ⁻			
325.6	173 4	3367.3	15 ⁻	3041.7	14 ⁻			$A_2/A_0 = 0.17$ 4.
328.9	9.7 14	6303.8	(24 ⁺)	5974.9	(23 ⁻)			$A_2/A_0 = -0.3$ 3.
332.2	22 6	1640.1	(5 ⁻)	1307.8	5 ⁻			$A_2/A_0 = -0.6$ 5.
339.6	3.0 6	2763.1	12 ⁺	2423.4	10 ⁺	Q ^{&}		
340.5	36 3	5518.1	(21 ⁻)	5177.8	(20 ⁻)			
340.6	59.2 21	3887.4	17 ⁺	3546.9	16 ⁺			
350.7	483 13	688.2	6 ⁺	337.5	4 ⁺	Q	544 14	Mult.: $A_2/A_0 = +0.19$ 6.
353.3 ^{@d}		3175.8	14 ⁺	2822.3	14 ⁺			
355.3	24.6 19	3744.2	(15 ⁻)	3388.9	15 ⁺			
358.8	7.2 12	5876.9	(22 ⁻)	5518.1	(21 ⁻)			
360.7	35.2 21	4248.0	18 ⁺	3887.4	17 ⁺			$A_2/A_0 = +0.38$ 12.
361.5	17.3 18	5815.2	23 ⁻	5453.7	22 ⁻			
362.8	27 6	2274.6	(9 ⁻)	1911.9	(7 ⁻)			
368.9	54 3	1830.4	8 ⁻	1461.8	6 ⁻	Q		Mult.: $A_2/A_0 = +0.20$ 10.
376.9	31.3 17	2965.5	13 ⁺	2588.6	11 ⁺	Q		Mult.: $A_2/A_0 = +0.18$ 13.
379.6	11.3 11	4627.8	19 ⁺	4248.0	18 ⁺			$A_2/A_0 = +0.30$ 24.
390.6		1528.8	8 ⁻	1138.2	8 ⁺		660 12	
392.0		6207.4	24 ⁻	5815.2	23 ⁻			

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$^{176}\text{Yb}(^9\text{Be},5n\gamma)$ **1993YeZX,1993Wa11,2002Fa19 (continued)** $\gamma(^{180}\text{W})$ (continued)

E_γ †	I_γ ‡	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.#	I_γ^a	Comments
396.3	9.6 10	5023.9	20 ⁺	4627.8	19 ⁺			$A_2/A_0=+0.51$ 18. I_γ : evaluator assumes 9.6 1 is a misprint.
400.2	76 3	2024.4	9 ⁻	1624.1	7 ⁻	Q		Mult.: $A_2/A_0=+0.23$ 9.
409.9	6.7 9	5433.8	21 ⁺	5023.9	20 ⁺			$A_2/A_0=+0.4$ 3.
411.8	24 5	2495.3	(10 ⁻)	2083.3	(8 ⁻)			
413.0	4.7 7	3175.8	14 ⁺	2763.1	12 ⁺	Q&		
415.9	80.5 15	1944.7	10 ⁻	1528.8	8 ⁻	Q	83 5	Mult.: $A_2/A_0=+0.25$ 4.
418.5	6.1 10	6626.1	25 ⁻	6207.4	24 ⁻			$A_2/A_0=+0.5$ 4.
423.9	12 3	5858	22 ⁺	5433.8	21 ⁺			
430.0		6733.8	(25 ⁺)	6303.8	(24 ⁺)			
433.0	15 3	3696.9	(16)	3264.0	14 ⁻			
433 ^d		6292?	(23 ⁺)	5858	22 ⁺			
435		4147.0	17 ⁻	3712.2	16 ⁻			
443.0	3.2 8	7176.8	(26 ⁺)	6733.8	(25 ⁺)			
443.6		7069.7	26 ⁻	6626.1	25 ⁻			
449.2	37 5	2723.8	(11 ⁻)	2274.6	(9 ⁻)			
450.0 ^c	437 ^c 12	1138.2	8 ⁺	688.2	6 ⁺	Q	554 18	Mult.: $A_2/A_0=+0.19$ 6.
450.0 ^c	24.3 ^c 25	4147.0	17 ⁻	3696.9	(16)			
453.2	76 15	2283.6	10 ⁻	1830.4	8 ⁻	(Q)		Mult.: $A_2/A_0=+0.4$ 4.
455.2	19 5	1640.1	(5 ⁻)	1184.9	4 ⁻			
455.4	15.7 17	3421.2	15 ⁺	2965.5	13 ⁺	Q&		
461.4	86 5	2186.6	11 ⁻	1725.2	9 ⁻	(Q)	69 8	Mult.: $A_2/A_0=+0.07$ 11.
476.6	53.7 11	2501.0	11 ⁻	2024.4	9 ⁻	Q		Mult.: $A_2/A_0=+0.22$ 4.
505.9	86.2 21	2450.6	12 ⁻	1944.7	10 ⁻	Q	142 8	Mult.: $A_2/A_0=+0.21$ 5.
506.0	16 5	3001.3	(12 ⁻)	2495.3	(10 ⁻)			
518.9	7.5 16	4415.9	18 ⁻	3897.2	16 ⁻			
519.0	3.0 6	3695.0	16 ⁺	3175.8	14 ⁺	Q&		
524.9	4.0 6	4269.1	(17 ⁻)	3744.2	(15 ⁻)			
525.5 ^c	276 ^c 13	1663.6	10 ⁺	1138.2	8 ⁺	Q		Mult.: $A_2/A_0=+0.22$ 11.
525.5 ^c	17 ^c 6	3249.3	(13 ⁻)	2723.8	(11 ⁻)			
528.3	17.7 13	2763.1	12 ⁺	2234.9	12 ⁺			
529.3	28 3	2812.9	12 ⁻	2283.6	10 ⁻	(Q)		Mult.: $A_2/A_0=+0.10$ 24.
542 ^d		4147.0	17 ⁻	3605.0	(15)			
545.4	12.2 20	3966.6	17 ⁺	3421.2	15 ⁺	(Q)		Mult.: $A_2/A_0=-0.2$ 6.
546.5	27.8 1	3047.5	13 ⁻	2501.0	11 ⁻	Q		Mult.: $A_2/A_0=+0.7$ 3.
548.7	1.0 5	2273.5	9 ⁺	1725.2	9 ⁻			
549.1	81.8 17	2735.7	13 ⁻	2186.6	11 ⁻	Q	86 5	Mult.: $A_2/A_0=+0.21$ 6.
552.5	3.4 10	4553.5	(18 ⁻)	4001.2	(16 ⁻)			
563.6	32 3	4710.6	19 ⁻	4147.0	17 ⁻			
565.9	7.0 23	4147.0	17 ⁻	3580.7	(15)			
571.4	186 5	2234.9	12 ⁺	1663.6	10 ⁺	Q		Mult.: $A_2/A_0=+0.23$ 6.
587.3	2.3 9	4856.6	(19 ⁻)	4269.1	(17 ⁻)			
587.4	117 6	2822.3	14 ⁺	2234.9	12 ⁺	Q		Mult.: $A_2/A_0=+0.36$ 3.
589.7	65 3	3412.0	16 ⁺	2822.3	14 ⁺	Q		Mult.: $A_2/A_0=+0.37$ 11.
591.2	51.1 24	3041.7	14 ⁻	2450.6	12 ⁻	Q	138 9	Mult.: $A_2/A_0=+0.11$ 10.
597.0	11 7	3846	(15 ⁻)	3249.3	(13 ⁻)			
597.9	19 3	3410.8	14 ⁻	2812.9	12 ⁻			
601.4	2.2 4	5453.7	22 ⁻	4852.2	20 ⁻			
603.4 ^{@d}		2132.3	8 ⁺	1528.8	8 ⁻			
604.8	34.2 18	4016.8	18 ⁺	3412.0	16 ⁺	(Q)		Mult.: $A_2/A_0=-0.17$ 11.
609.2	10.7 22	3657	15 ⁻	3047.5	13 ⁻	Q		Mult.: $A_2/A_0=+0.33$ 22.
613 ^d		5028.9?	(20 ⁻)	4415.9	18 ⁻			
624.3	3.0 13	5177.8	(20 ⁻)	4553.5	(18 ⁻)			
631.7	45 3	3367.3	15 ⁻	2735.7	13 ⁻	Q		Mult.: $A_2/A_0=+0.20$ 13.

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$^{176}\text{Yb}(^9\text{Be},5\text{n}\gamma)$ **1993YeZX,1993Wa11,2002Fa19** (continued) $\gamma(^{180}\text{W})$ (continued)

$E_\gamma^\dagger$	$I_\gamma^\ddagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [#]	I_γ^a	Comments
639.4	3.7 7	4606.0	19 ⁺	3966.6	17 ⁺	Q&		
643.5	1.5 6	2588.6	11 ⁺	1944.7	10 ⁻			
643.9	3.1 6	4338.9	18 ⁺	3695.0	16 ⁺	Q&		
655.0	7 5	4066	16 ⁻	3410.8	14 ⁻			
655.5	17 5	4672.3	20 ⁺	4016.8	18 ⁺	Q		Mult.: $A_2/A_0=+0.26$ 7.
661.2		6114.6	(23 ⁻)	5453.7	22 ⁻			
661.4	2.8 9	5518.1	(21 ⁻)	4856.6	(19 ⁻)			
663.7	4.1 26	4320	17 ⁻	3657	15 ⁻			
670.5	30.3 16	3712.2	16 ⁻	3041.7	14 ⁻	Q		Mult.: $A_2/A_0=+0.21$ 11.
687.0	6.4 9	5815.2	23 ⁻	5128.2	21 ⁻	Q		Mult.: $A_2/A_0=+0.5$ 3.
695.0	5.9 22	4761	18 ⁻	4066	16 ⁻			
698.2	2.4 3	2423.4	10 ⁺	1725.2	9 ⁻			
699.1	5.2 8	5876.9	(22 ⁻)	5177.8	(20 ⁻)			
700.9	6.7 17	4248.0	18 ⁺	3546.9	16 ⁺			
703.6	3.1 4	4415.9	18 ⁻	3712.2	16 ⁻			
706.6	5.7 5	4073.9	17 ⁻	3367.3	15 ⁻			
707.0	3.1 8	5027	19 ⁻	4320	17 ⁻			
718 ^d		5745	(21 ⁻)	5027	19 ⁻			
728.9	5.4 2	5401	22 ⁺	4672.3	20 ⁺			
733.2	1.9 4	5339.3	21 ⁺	4606.0	19 ⁺	Q&		
740.5	8.2 8	4627.8	19 ⁺	3887.4	17 ⁺			
742.9	1.1 3	4455.1	18 ⁻	3712.2	16 ⁻			
745 ^d		1082.5	3 ⁻	337.5	4 ⁺			
753.5		6207.4	24 ⁻	5453.7	22 ⁻			
755.9	1.5 5	5094.8	20 ⁺	4338.9	18 ⁺	Q&		
759.7	10.5 6	2423.4	10 ⁺	1663.6	10 ⁺			$A_2/A_0=+0.09$ 12.
771.0 ^d	3.2 8	4844.9?	(19 ⁻)	4073.9	17 ⁻			$A_2/A_0=-0.2$ 5.
776.0	7.5 16	5023.9	20 ⁺	4248.0	18 ⁺	(Q)		Mult.: $A_2/A_0=+0.5$ 5.
779.7	1.8 2	4147.0	17 ⁻	3367.3	15 ⁻			
805.6	5.8 16	5433.8	21 ⁺	4627.8	19 ⁺			
809.5	5.5 5	6211	24 ⁺	5401	22 ⁺			$A_2/A_0=0.003$ 20.
811.1		6626.1	25 ⁻	5815.2	23 ⁻			
813.4		3264.0	14 ⁻	2450.6	12 ⁻		94 5	
823.0 ^{@d}		6162?	23 ⁺	5339.3	21 ⁺			
835 ^d		5858	22 ⁺	5023.9	20 ⁺			
846.8		5974.9	(23 ⁻)	5128.2	21 ⁻			
858 ^d		6292?	(23 ⁺)	5433.8	21 ⁺			
862.3	1.0 5	7069.7	26 ⁻	6207.4	24 ⁻			
872.8	2.9 6	3695.0	16 ⁺	2822.3	14 ⁺			
873.1		7176.8	(26 ⁺)	6303.8	(24 ⁺)			
889.5	1.8 2	7100	26 ⁺	6211	24 ⁺			
902.8	89 7	1006.3	2 ⁻	103.5	2 ⁺		8 4	
926.8 ^{@d}		4338.9	18 ⁺	3412.0	16 ⁺			
940.9	11.7 6	3175.8	14 ⁺	2234.9	12 ⁺	Q		Mult.: $A_2/A_0=+0.34$ 11.
966 ^d		8066?	(28 ⁺)	7100	26 ⁺			
986.4		6114.6	(23 ⁻)	5128.2	21 ⁻			
994.1	5.4 9	2132.3	8 ⁺	1138.2	8 ⁺			$A_2/A_0=+0.0$ 4.
1099.6	7.1 18	2763.1	12 ⁺	1663.6	10 ⁺	(Q)		Mult.: $A_2/A_0=+0.7$ 5.
1285.2	7.4 13	2423.4	10 ⁺	1138.2	8 ⁺			$A_2/A_0=-0.2$ 3.

[†] From 1993YeZX, except where noted.

$^{176}\text{Yb}(^9\text{Be},5n\gamma)$ [1993YeZX,1993Wa11,2002Fa19](#) (continued)

$\gamma(^{180}\text{W})$ (continued)

- [‡] Prompt I_γ from [1993YeZX](#). Measured during beam bursts (≈ 40 ns) and normalized to the total intensity (prompt and delayed) of the 234 γ , $I_\gamma(234\gamma)/(\text{prompt}+\text{delayed})=1000$.
- # From $\gamma(\theta)$ in [1993YeZX](#), except where noted. A_2/A_0 values are included in the comments.
- @ From [1993Wa11](#).
- & From [1993Wa11](#). Authors state that for the band built on the 2132-keV, 8^+ level, the cascade transitions are D/Q in character and the crossover transitions are Q in character based on their angular distribution analysis. However, no details are given apart from the A_2 coefficients for a few sample transitions.
- ^a Delayed I_γ from [1993YeZX](#). Measured between beam bursts (≈ 40 ns) and normalized to the total intensity (prompt and delayed) of the 234 γ , $I_\gamma(234\gamma)/(\text{prompt}+\text{delayed})=1000$.
- ^b Multiply placed with undivided intensity.
- ^c Multiply placed with intensity suitably divided.
- ^d Placement of transition in the level scheme is uncertain.

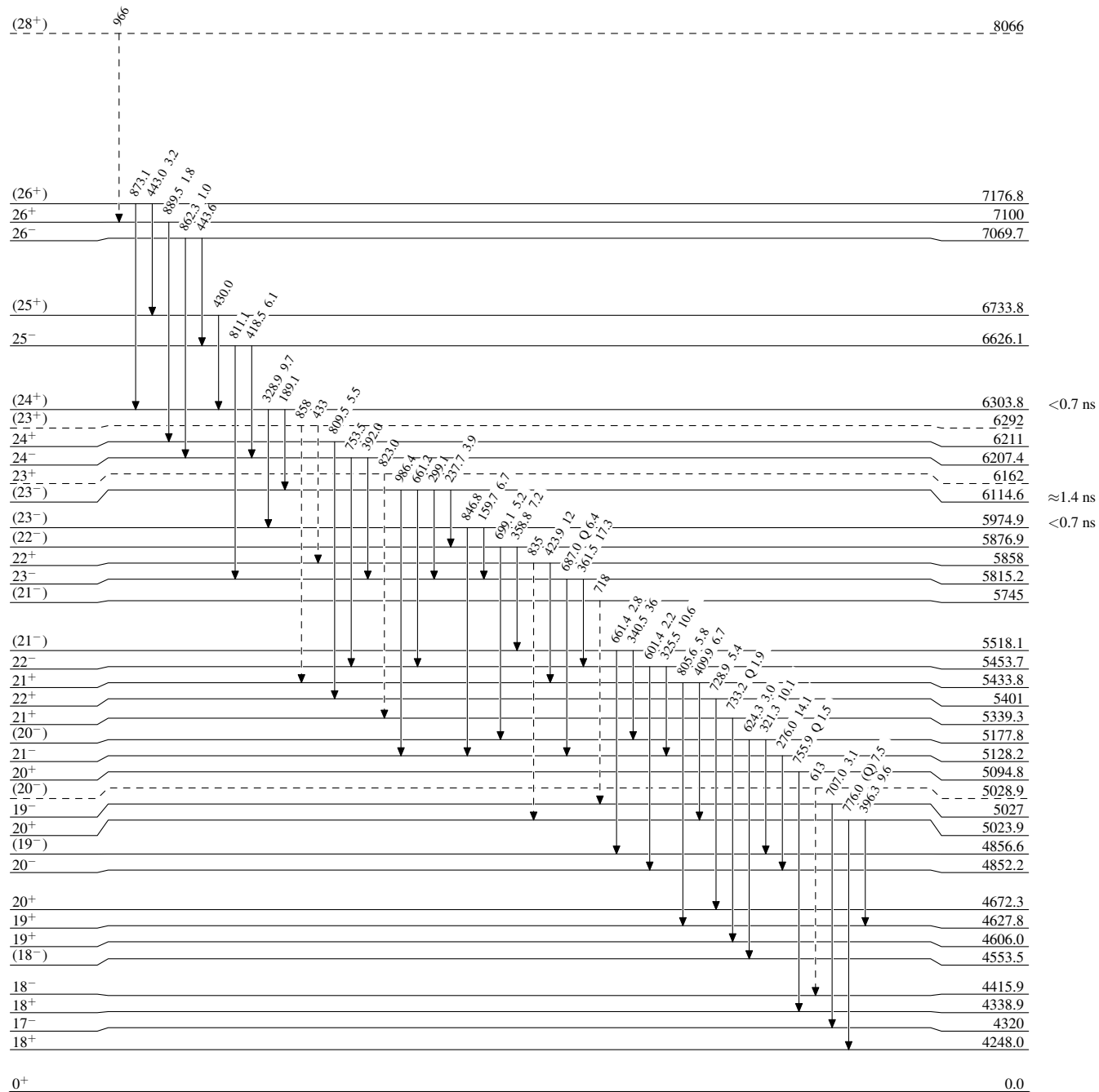
$^{176}\text{Yb}(^9\text{Be},5n\gamma)$ 1993YeZX,1993Wa11,2002Fa19

Legend

Level Scheme

Intensities: Type not specified

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



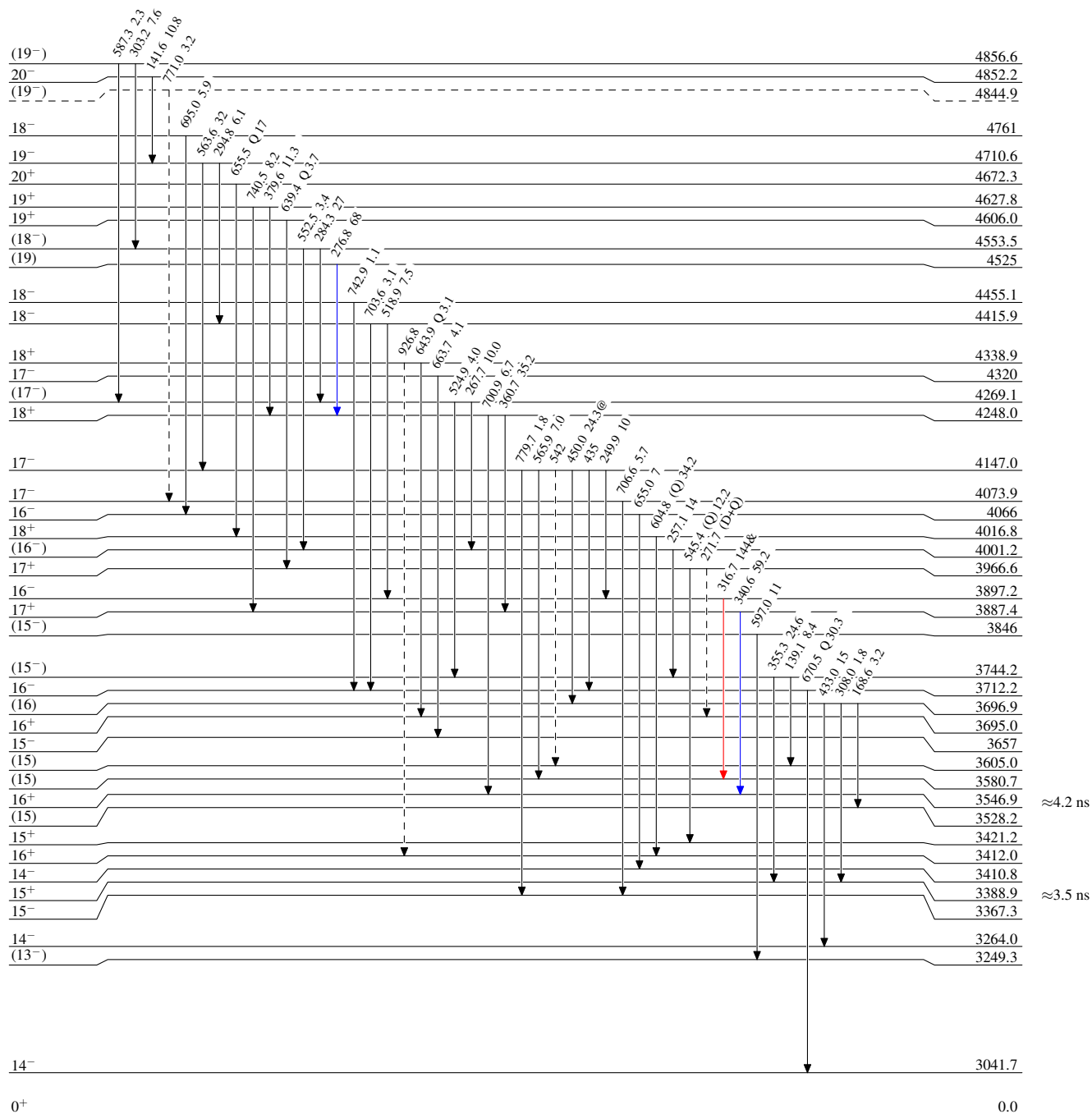
$^{176}\text{Yb}(^9\text{Be},5n\gamma)$ 1993YeZX,1993Wa11,2002Fa19

Level Scheme (continued)

Intensities: Type not specified
 & Multiply placed: undivided intensity given
 @ Multiply placed: intensity suitably divided

Legend

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



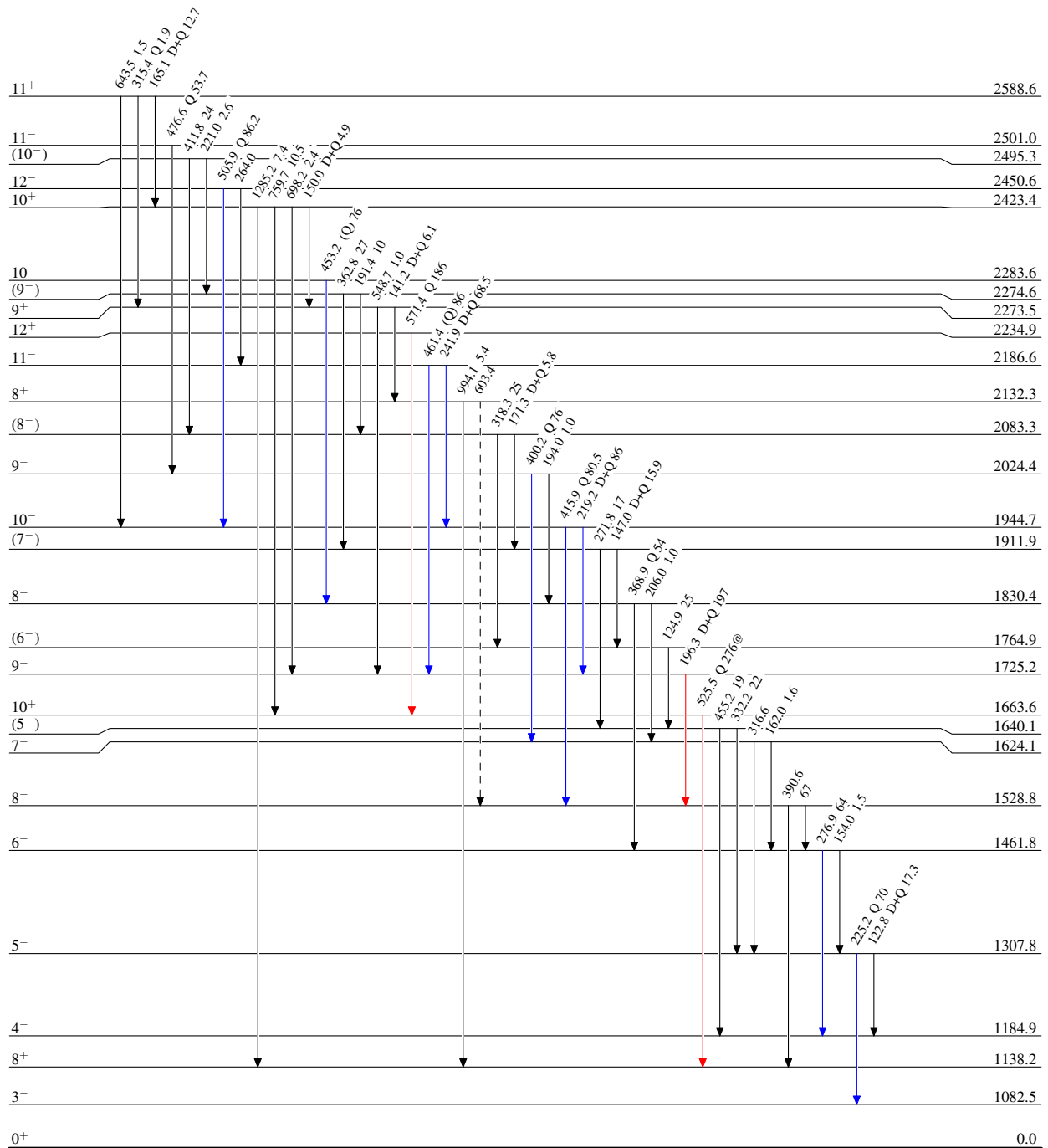
$^{176}\text{Yb}(^9\text{Be}, 5n\gamma)$ 1993YeZX, 1993Wa11, 2002Fa19

Level Scheme (continued)

Legend

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

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



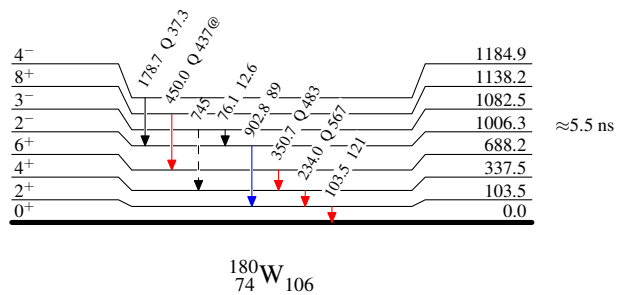
$^{176}\text{Yb}(^9\text{Be},5n\gamma)$ 1993YeZX,1993Wa11,2002Fa19

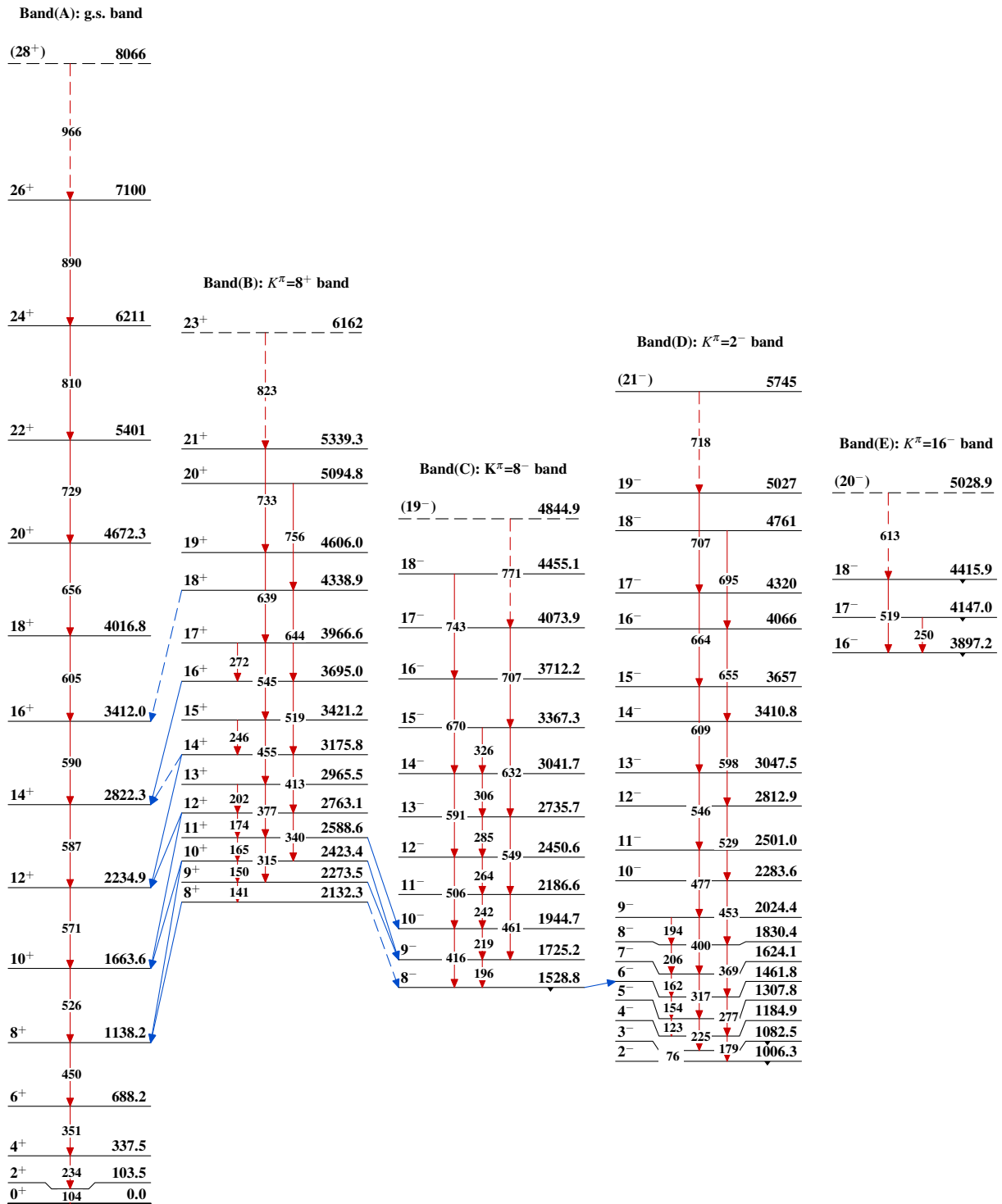
Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

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



$^{176}\text{Yb}(^9\text{Be},5\text{n}\gamma)$ 1993YeZX,1993Wa11,2002Fa19

$^{176}\text{Yb}(^9\text{Be},5\text{n}\gamma)$ 1993YeZX,1993Wa11,2002Fa19 (continued)