^{176}Yb(^{7}Li,4nγ) E=38 MeV 1982Ba21

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 110, 265 (2009)	15-Nov-2008

For ^{176}Yb(^{7}Li,4nγ) At E=45 MeV, please see separate dataset.

1982Ba21: E(^{7}Li)=38 MeV. Target: 96% enriched ^{176}Yb. Measured excit (35-45 MeV), Eγ and Iγ (E=38 MeV, θ=125°), $\gamma\gamma$ coin, $\gamma\gamma$(t), ^{7}Li-γ(t), ^{7}Li-$\gamma(\theta)$ at θ=32° and 90°. Detectors: Ge(Li), scin. Measured Ice. Detector: magnetic spectrometer. Determined level $T_{1/2}$ in the ns, μs, and ms ranges.

^{179}Ta Levels

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$[#]	Comments
0.0[@]	7/2^{+}		
30.7[&] *3*	9/2^{-}		
133.68[@] *24*	9/2^{+}		
180.9[&] *4*	11/2^{-}		
238.6[a] *3*	5/2^{+}		
294.65[@] *24*	11/2^{+}		
344.0[a] *4*	7/2^{+}		
356.3[&] *4*	13/2^{-}		
477.1[a] *5*	9/2^{+}		
481.3[@] *3*	13/2^{+}		
520.3[c] *5*	1/2^{+}		
527.5[c] *4*	3/2^{+}		
555.8[&] *5*	15/2^{-}		
627.9[b] *4*	5/2^{-}		
627.9+x[b]	9/2^{-}		E(level): x=45.0 *10* from Adopted Levels, Gammas.
636.5[a] *6*	11/2^{+}		
673.4[c] *5*	5/2^{+}		
692.0[@] *4*	15/2^{+}		
695.8[c] *5*	7/2^{+}		
778.0[&] *5*	17/2^{-}		
781.1+x[b] *3*	13/2^{-}		
820.8[a] *6*	13/2^{+}		
924.9[@] *5*	17/2^{+}		
937.2[c] *6*	9/2^{+}		
987.4[c] *6*	11/2^{+}		
1020.6[&] *5*	19/2^{-}		
1028.4[a] *6*	15/2^{+}		
1044.8+x[b] *5*	17/2^{-}		
1177.2[@] *5*	19/2^{+}		
1253.1[f] *6*	21/2^{-}	325 ns *25*	$T_{1/2}$: from delayed $\gamma\gamma$ coincidences with stop gates on the main lines of the 9/2[514] band.
1255.9[a] *6*	17/2^{+}		
1282.3[&] *5*	21/2^{-}		
1317.8[d] *6*	25/2^{+}	9.0 ms *2*	$T_{1/2}$: from γ(t) for main lines of 9/2[514] band and 65ce(t).
1328.4[e] *6*	23/2^{-}	1.6 μs *4*	
1389.0[c] *7*	15/2^{+}		
1414.4+x[b] *6*	21/2^{-}		
1447.1[@] *5*	21/2^{+}		
1503.3[a] *6*	19/2^{+}		

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^{176}Yb(^{7}Li,4nγ) E=38 MeV 1982Ba21 (continued)

^{179}Ta Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$[#]	Comments
1543.2[f] 6	23/2$^-$		
1558.4[&] 5	23/2$^-$		
1591.7[d] 7	27/2$^+$		
1602.8[e] 6	25/2$^-$		
1629.6 6			
1730.7[@] 6	23/2$^+$		
1764.9[a] 7	21/2$^+$		
1848.5[&] 5	25/2$^-$		
1849.4[f] 7	25/2$^-$		
1881.2+x[b] 6	25/2$^-$		
1885.6[d] 7	29/2$^+$		
1900.6[e] 6	27/2$^-$		
2026.7[@] 6	25/2$^+$		
2145.9[&] 5	27/2$^-$		
2162.9[f] 7	27/2$^-$		
2199.3[d] 7	31/2$^+$		
2220.3[e] 6	29/2$^-$		
2330.7[@] 12	27/2$^+$		
2434.9+x[b] 7	29/2$^-$		
2452.1[&] 6	29/2$^-$		
2531.9[d] 7	33/2$^+$		
2562.4?[e] 7	31/2$^-$		
2609.8+x 7	27/2$^-$		level not adopted. In a later (^{7}Li,4nγ) study (1997Ko13), the doubly-placed 175γ was not In coincidence with the relevant 1/2[541] intraband γ's and the 729γ was assigned As the 41/2 to 37/2 transition In the 1/2[541] band.
2640.7[g] 7	37/2$^+$	52 ms 3	%IT=100 T$_{1/2}$: from γ(t) for main lines of 9/2[514] band and 65ce(t).
2641.7[@] 12	29/2$^+$		
2765.7[&] 7	31/2$^-$		E(level): level not adopted; see comment on 9/2[514] band.
2794.1[h] 7	33/2$^-$	22 ns 5	
2930.1[h] 7	(35/2$^-$)		
2955.7[@] 12	31/2$^+$		
3059.7+x[b] 8	33/2$^-$		
3090.0[&] 7	33/2$^-$		E(level): level not adopted; see comment on 9/1[514] band.
3164.6[h] 7	(37/2$^-$)		

[†] Calculated by evaluator from a least-squares fit to γ-ray energies assigning ΔE=0.3 keV, unless Eγ is quoted only to nearest keV (in which case, ΔE=1 keV is assigned).

[‡] From 1982Ba21, based primarily on deduced rotational structure, on approximate energies expected from Nilsson model, and on the systematics of the same orbitals in neighboring odd-Ta isotopes.

[#] From delayed $\gamma\gamma$ coin (μs range), (beam)-γ timing (ns range) or by two-parameter multiscaling using slow pulsation of beam (ms range) (1982Ba21).

[@] Band(A): 7/2[404] g.s. rotational band.

[&] Band(B): 9/2[514] rotational band. The adopted energies for the J=31/2 and 33/2 members of this band differ from those shown here because there exist two cascading 306-keV gammas In this band but 1982Ba21 were aware of only one of them (see

Continued on next page (footnotes at end of table)

^{176}Yb(^{7}Li,4nγ) E=38 MeV 1982Ba21 (continued)

^{179}Ta Levels (continued)

Adopted Levels, Gammas).

[a] Band(C): 5/2[402] rotational band.

[b] Band(D): 1/2[541] rotational band.

[c] Band(E): 1/2[411] rotational band.

[d] Band(F): $K^{\pi}=25/2^{+}$ rotational band. Configuration=(π 9/2[514]) coupled to ((ν 9/2[624])+(ν 7/2[514]))8^{-} ^{178}Hf core (1982Ba21).

[e] Band(G): $K^{\pi}=23/2^{-}$ rotational band. Configuration=(π 7/2[404]) coupled to ((ν 9/2[624])+(ν 7/2[514]))8^{-} ^{178}Hf core (1982Ba21).

[f] Band(H): $K^{\pi}=21/2^{-}$ rotational band. Predominant configuration=(π 5/2[402]) coupled to ((π 9/2[514])+(π 7/2[404]))8^{-} ^{178}Hf core (1982Ba21).

[g] Band(I): $K^{\pi}=37/2^{+}$ rotational band. Configuration=(π 5/2[402]) coupled to $J^{\pi}=16^{+}$, ((ν 9/2[624])+(ν 7/2[514])+(π 9/2[514])+(π 7/2[404])) ^{178}Hf structure (1982Ba21).

[h] Band(J): $K^{\pi}=33/2^{-}$ rotational band. Predominant configuration=(π 1/2[541]) coupled to $J^{\pi}=16^{+}$, ((ν 9/2[624])+(ν 7/2[514])+(π 9/2[514])+(π 7/2[404])) ^{178}Hf structure (1982Ba21).

γ(^{179}Ta)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ	α[b]	Comments
30.7 *1*		30.7	9/2$^-$	0.0	7/2$^+$				E_γ: from Adopted Gammas.
64.7		1317.8	25/2$^+$	1253.1	21/2$^-$	M2[a]		76.0	Observed in ce spectrum only.
75.34	2.4	1328.4	23/2$^-$	1253.1	21/2$^-$	M1(+E2)	0.33 *+19−33*	10.0 *3*	Mult.,δ: from α(L)exp=2.0 *8*.
100.52	12.2	627.9	5/2$^-$	527.5	3/2$^+$	D(+Q)			A_2=−0.12 *9*.
105.32	10.4	344.0	7/2$^+$	238.6	5/2$^+$	D(+Q)			A_2=−0.12 *10*.
108.82	6.1	2640.7	37/2$^+$	2531.9	33/2$^+$	E2		2.66	Mult.: from α(exp)=2.6 *6* and ce(K)/ce(L) exp=0.75 *3*. A_2=−0.11 *19*.
133.17	7.9	477.1	9/2$^+$	344.0	7/2$^+$				A_2=+0.05 *8* for 133.7γ+133.2γ doublet.
133.73	17.3	133.68	9/2$^+$	0.0	7/2$^+$				A_2=+0.05 *8* for 133.7γ+133.2γ doublet.
135.92	4.5	2930.1	(35/2$^-$)	2794.1	33/2$^-$	D+Q			A_2=−0.84 *23*.
145.91	7.1	673.4	5/2$^+$	527.5	3/2$^+$				
150.19	165	180.9	11/2$^-$	30.7	9/2$^-$				I_γ: contains ^{177}Lu impurity. A_2=−0.08 *4*.
153.18[d]	10.2[d]	781.1+x	13/2$^-$	627.9+x	9/2$^-$	(Q)			I_γ: see comment on 153γ from 673 level. A_2=+0.26 *8* for doublet, 81% of which deexcites this level.
153.18[d]	2.4[d]	673.4	5/2$^+$	520.3	1/2$^+$				I_γ: from I(146γ)/I(153γ)=0.34 in (d,2nγ), I(153γ)=2.4 is expected from 673 level, leaving Iγ=10.2 deexciting the 781+x level (Iγ=12.6 for doublet).
159.26	16.9	636.5	11/2$^+$	477.1	9/2$^+$				A_2=+0.17 *7*.
161.01	22.6	294.65	11/2$^+$	133.68	9/2$^+$	D(+Q)			A_2=−0.11 *6*.
168.26	6.1	695.8	7/2$^+$	527.5	3/2$^+$				A_2=−0.12 *19*; low for ΔJ=2 γ required by level scheme.
175.42[c]	127[c]	2609.8+x	27/2$^-$	2434.9+x	29/2$^-$				A_2=−0.03 *5* for doubly-placed G.
175.42[c]	127[c]	356.3	13/2$^-$	180.9	11/2$^-$				A_2=−0.03 *5* for doubly-placed G.
184.14	23.3	820.8	13/2$^+$	636.5	11/2$^+$				I_γ: line contains background

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^{176}Yb(^{7}Li,4nγ) E=38 MeV 1982Ba21 (continued)

$\gamma(^{179}Ta)$ (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
								peaks. A_2=+0.25 *12* for contaminated LINE..
186.50	9.0	481.3	$13/2^+$	294.65	$11/2^+$			
199.42	110	555.8	$15/2^-$	356.3	$13/2^-$	D+Q		A_2=−0.04 *4*.
[x]204.77[@]	5.4							
207.64	8.7	1028.4	$15/2^+$	820.8	$13/2^+$	D+Q		A_2=−0.08 *7*.
210.59	4.3	692.0	$15/2^+$	481.3	$13/2^+$			A_2=+0.08 *23*.
222.16	100	778.0	$17/2^-$	555.8	$15/2^-$	D+Q		A_2=+0.06 *4*.
227.37	24.7	1255.9	$17/2^+$	1028.4	$15/2^+$			I_γ: line contains ^{178}Ta impurity. A_2=−0.19 *6* for contaminated line.
232[e]		2794.1	$33/2^-$	2562.4?	$31/2^-$			
232.6[d&]	3.2[d]	924.9	$17/2^+$	692.0	$15/2^+$			I_γ: based on I(443.6γ)=11.0 and adopted branching for the 925 level, only Iγ(232.6)=3.2 is attributable to this transition, leaving Iγ=70.9 to be placed from the 1253 level (Iγ=74.1 for doublet).
232.6[d]	70.9[d]	1253.1	$21/2^-$	1020.6	$19/2^-$	M1(+E2)	0.29 *12*	Mult.: from α(exp)=0.36 *10*, which the evaluator presumes to be for this delayed component of the 233γ. A_2=−0.07 *5* for multiplet dominated by this transition. I_γ: see comment on 232.6γ from 925 level.
234.46	6.3	3164.6	$(37/2^-)$	2930.1	$(35/2^-)$			A_2=+0.09 *18*; consistent with ΔJ=1 placement.
238.58	57.0	238.6	$5/2^+$	0.0	$7/2^+$	D+Q		A_2=−0.09 *5*.
242.52	69.6	1020.6	$19/2^-$	778.0	$17/2^-$	D+Q		A_2=−0.03 *4*.
[x]246.0[@]	4.8							
247.2		1503.3	$19/2^+$	1255.9	$17/2^+$			E_γ: from fig. 4 of 1982Ba21; absent in table 1.
252.49	2.3	1177.2	$19/2^+$	924.9	$17/2^+$			
261.58[c]	13.1[c]	1282.3	$21/2^-$	1020.6	$19/2^-$			A_2=−0.03 *8* for doublet.
261.58[c]	13.1[c]	1764.9	$21/2^+$	1503.3	$19/2^+$			A_2=−0.03 *8* for doublet.
262.2[&]		2794.1	$33/2^-$	2531.9	$33/2^+$			
263.81[c]	15.3[c]	1044.8+x	$17/2^-$	781.1+x	$13/2^-$			A_2=+0.21 *7* for doublet.
263.81[c]	15.3[c]	937.2	$9/2^+$	673.4	$5/2^+$			A_2=+0.21 *7* for doubly placed G.
270.00	3.9	1447.1	$21/2^+$	1177.2	$19/2^+$			
273.85	39.9	1591.7	$27/2^+$	1317.8	$25/2^+$			A_2=+0.15 *4* for doublet.
274.47	18.7	1602.8	$25/2^-$	1328.4	$23/2^-$			A_2=+0.15 *4* for doublet.
276.12	8.3	1558.4	$23/2^-$	1282.3	$21/2^-$	D+Q		A_2=−0.08 *10*.
[x]280.8[@&]								
281.68	14.3	520.3	$1/2^+$	238.6	$5/2^+$			I_γ: line may include contaminant. A_2=−0.02 *8* for possibly-contaminated line.
283.90	9.4	627.9	$5/2^-$	344.0	$7/2^+$	D+Q		A_2=+0.01 *10*.
289.06	16.9	527.5	$3/2^+$	238.6	$5/2^+$			A_2=−0.07 *5* for multiplet.
290.1[c]	19.9[c]	1543.2	$23/2^-$	1253.1	$21/2^-$			A_2=−0.07 *5* for multiplet.
290.1[c]	19.9[c]	1848.5	$25/2^-$	1558.4	$23/2^-$			A_2=−0.07 *5* for multiplet.
291.6	4.5	987.4	$11/2^+$	695.8	$7/2^+$			
293.8	20.9	1885.6	$29/2^+$	1591.7	$27/2^+$			A_2=+0.21 *7* for doublet.
294.6	7.4	294.65	$11/2^+$	0.0	$7/2^+$			A_2=+0.21 *7* for doublet.
297.4[c]	6.6[c]	1900.6	$27/2^-$	1602.8	$25/2^-$			A_2=−0.19 *11* for doublet.
297.4[c]	6.6[c]	2145.9	$27/2^-$	1848.5	$25/2^-$			A_2=−0.19 *11* for doublet.
306.2[c]	9.4[c]	1849.4	$25/2^-$	1543.2	$23/2^-$			A_2=+0.02 *9* for doublet.

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^{176}Yb(^{7}Li,4nγ) E=38 MeV 1982Ba21 (continued)

$\gamma(^{179}Ta)$ (continued)

E_γ †	I_γ ‡	E_i(level)	J_i^π	E_f	J_f^π	Mult. #	Comments
306.2 c	9.4 c	2452.1	29/2$^-$	2145.9	27/2$^-$		A_2=+0.02 *9* for doublet.
313.6 c	11.3 c	2162.9	27/2$^-$	1849.4	25/2$^-$		A_2=+0.20 *8* for triplet.
313.6 c	11.3 c	2199.3	31/2$^+$	1885.6	29/2$^+$		A_2=+0.20 *8* for triplet.
313.6 c	11.3 c	2765.7	31/2$^-$	2452.1	29/2$^-$		A_2=+0.20 *8* for triplet. In Adopted Levels, this γ feeds the 31/2 member of the 9/2[514] band (not the 29/2 member).
319.7	6.1	2220.3	29/2$^-$	1900.6	27/2$^-$		
325.6	55.9	356.3	13/2$^-$	30.7	9/2$^-$		I_γ: peak includes ^{178}Hf impurity.
332.6	12.1	2531.9	33/2$^+$	2199.3	31/2$^+$		
342 &e		2562.4?	31/2$^-$	2220.3	29/2$^-$		
343.7	4.3	820.8	13/2$^+$	477.1	9/2$^+$		A_2=+0.20 *16*.
347.6	14.1	481.3	13/2$^+$	133.68	9/2$^+$	Q	A_2=+0.21 *7*.
x350.7	45.4						Partly preceding the 1253.1 level.
369.5	9.9	1414.4+x	21/2$^-$	1044.8+x	17/2$^-$	Q	A_2=+0.25 *8*.
370.5 @		3164.6	(37/2$^-$)	2794.1	33/2$^-$		
374.9	25.6	555.8	15/2$^-$	180.9	11/2$^-$		A_2=+0.08 *6*.
376.5	5.6	1629.6		1253.1	21/2$^-$	D(+Q)	A_2=−0.25 *13*.
x388.0 @&							
389.3	13.7	627.9	5/2$^-$	238.6	5/2$^+$		A_2=+0.10 *7*.
392.0 &		1028.4	15/2$^+$	636.5	11/2$^+$		
397.4	11.9	692.0	15/2$^+$	294.65	11/2$^+$		A_2=+0.20 *7*.
401.6	5.3	1389.0	15/2$^+$	987.4	11/2$^+$		
x410.8 @	6.7						
x417.8 @	2.7						
421.7	33.1	778.0	17/2$^-$	356.3	13/2$^-$		A_2=+0.02 *6*; very low for ΔJ=2 placement.
x429.2 @	5.1						
435.1	2.2	1255.9	17/2$^+$	820.8	13/2$^+$		
443.6	11.0	924.9	17/2$^+$	481.3	13/2$^+$		A_2=+0.14 *8*.
464.8	33.0	1020.6	19/2$^-$	555.8	15/2$^-$		A_2=+0.07 *6*; low for ΔJ=2 placement.
466.8	5.3	1881.2+x	25/2$^-$	1414.4+x	21/2$^-$		A_2=+0.10 *13*.
475.1 c	60.1 c	1253.1	21/2$^-$	778.0	17/2$^-$		A_2=−0.01 *5* for doublet. I_γ: line includes ^{178}Ta impurity.
475.1 c	60.1 c	1503.3	19/2$^+$	1028.4	15/2$^+$		A_2=−0.01 *5* for doublet. I_γ: line includes ^{178}Ta impurity.
485.5	11.2	1177.2	19/2$^+$	692.0	15/2$^+$		A_2=+0.19 *9* for possible doublet. I_γ: includes an unplaced component which precedes the 1253 level. From I(252γ)=2.3 and adopted I(252γ)/I(486γ from 1177 level)=0.20, one expects Iγ=11.5 from 1177 level in (^{7}Li,4nγ) E=38 MeV, cf. I(486γ doublet)=11.2; therefore, the evaluator shows the entire Iγ deexciting the 1177 level.
504.3	10.3	1282.3	21/2$^-$	778.0	17/2$^-$		
509 &		1764.9	21/2$^+$	1255.9	17/2$^+$		
522.1	7.0	1447.1	21/2$^+$	924.9	17/2$^+$		A_2=+0.30 *12*.
537.8	4.4	1558.4	23/2$^-$	1020.6	19/2$^-$		A_2=+0.33 *15*.
553.5 c	6.3 c	2434.9+x	29/2$^-$	1881.2+x	25/2$^-$		A_2=+0.18 *15* for doublet.
553.5 c	6.3 c	1730.7	23/2$^+$	1177.2	19/2$^+$		A_2=+0.18 *15* for doublet.
566.2	6.1	1848.5	25/2$^-$	1282.3	21/2$^-$		A_2=+0.21 *9* for doublet.
567.8	13.1	1885.6	29/2$^+$	1317.8	25/2$^+$		A_2=+0.21 *9* for doublet.
572.1	5.0	1900.6	27/2$^-$	1328.4	23/2$^-$		A_2=+0.28 *13*.
573.8	8.0	2794.1	33/2$^-$	2220.3	29/2$^-$		A_2=+0.23 *11*.
579.6	4.1	2026.7	25/2$^+$	1447.1	21/2$^+$		A_2=+0.11 *16*.
x583.2 @	1.3						

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^{176}Yb(^{7}Li,4nγ) E=38 MeV 1982Ba21 (continued)

$\gamma(^{179}Ta)$ (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
587.5	4.0	2145.9	27/2$^-$	1558.4	23/2$^-$		A_2=+0.05 *17*.
595[&e]		2794.1	33/2$^-$	2199.3	31/2$^+$		
[x]598[@&]							
600[&]		2330.7	27/2$^+$	1730.7	23/2$^+$		
603[&]		2452.1	29/2$^-$	1848.5	25/2$^-$		
607.6	12.7	2199.3	31/2$^+$	1591.7	27/2$^+$		A_2=+0.19 *8*.
615[&]		2641.7	29/2$^+$	2026.7	25/2$^+$		
617.6	11.7	2220.3	29/2$^-$	1602.8	25/2$^-$	Q	A_2=+0.33 *8*.
621[&e]		2162.9	27/2$^-$	1543.2	23/2$^-$		
625.0[c]	4.0[c]	3059.7+x	33/2$^-$	2434.9+x	29/2$^-$		
625.0[c]	4.0[c]	2955.7	31/2$^+$	2330.7	27/2$^+$		
637.9	3.1	3090.0	33/2$^-$	2452.1	29/2$^-$		A_2=+0.39 *21*. In Adopted Levels, this γ feeds the 31/2 member of the 9/2[514] band (not the 29/2 member).
646.3	12.9	2531.9	33/2$^+$	1885.6	29/2$^+$		A_2=+0.07 *8*.
[x]661.7[@]	12.5						Contaminated with 661γ from ^{137}Cs β^- decay.
662[&e]		2562.4?	31/2$^-$	1900.6	27/2$^-$		
[x]669.8[e]	2.9						Unplaced in level scheme, but reported In table 1 of 1982Ba21 as a γ ray connecting the 37/2$^-$ and 33/2$^-$ members of the 1/2[541] band. note, however, that the adopted energy for the latter transition is 679.2 *8*.
728.6	12.6	2609.8+x	27/2$^-$	1881.2+x	25/2$^-$		Partly preceding the 1253.1 level.

[†] ΔE ranges from 0.1 keV (for strong lines) to 0.3 keV (for weak or partially resolved lines).
[‡] Photon intensities at θ=125°. $\Delta I\gamma$ ranges from 8% (for strong lines) to 30% (for weak or partially resolved lines).
[#] Assigned by evaluator based on $\gamma(\theta)$, except As noted.
[@] Unplaced in level scheme, but precedes the 1253 level.
[&] Observed in $\gamma\gamma$ coin measurements only.
[a] M2, E2 or E3 from α(exp)>18.6 (deduced by authors from intensity balance and expected I(x ray) ratios) and RUL; however, for E2 and E3, the ce(L2) and ce(L3) components would dominate the ce(L) peak, contrary to observed ce(L) energy and lineshape.
[b] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
[c] Multiply placed with undivided intensity.
[d] Multiply placed with intensity suitably divided.
[e] Placement of transition in the level scheme is uncertain.
[x] γ ray not placed in level scheme.

^{176}Yb(^{7}Li,4nγ) E=38 MeV 1982Ba21

Level Scheme

Intensities: Relative I_γ

& Multiply placed: undivided intensity given

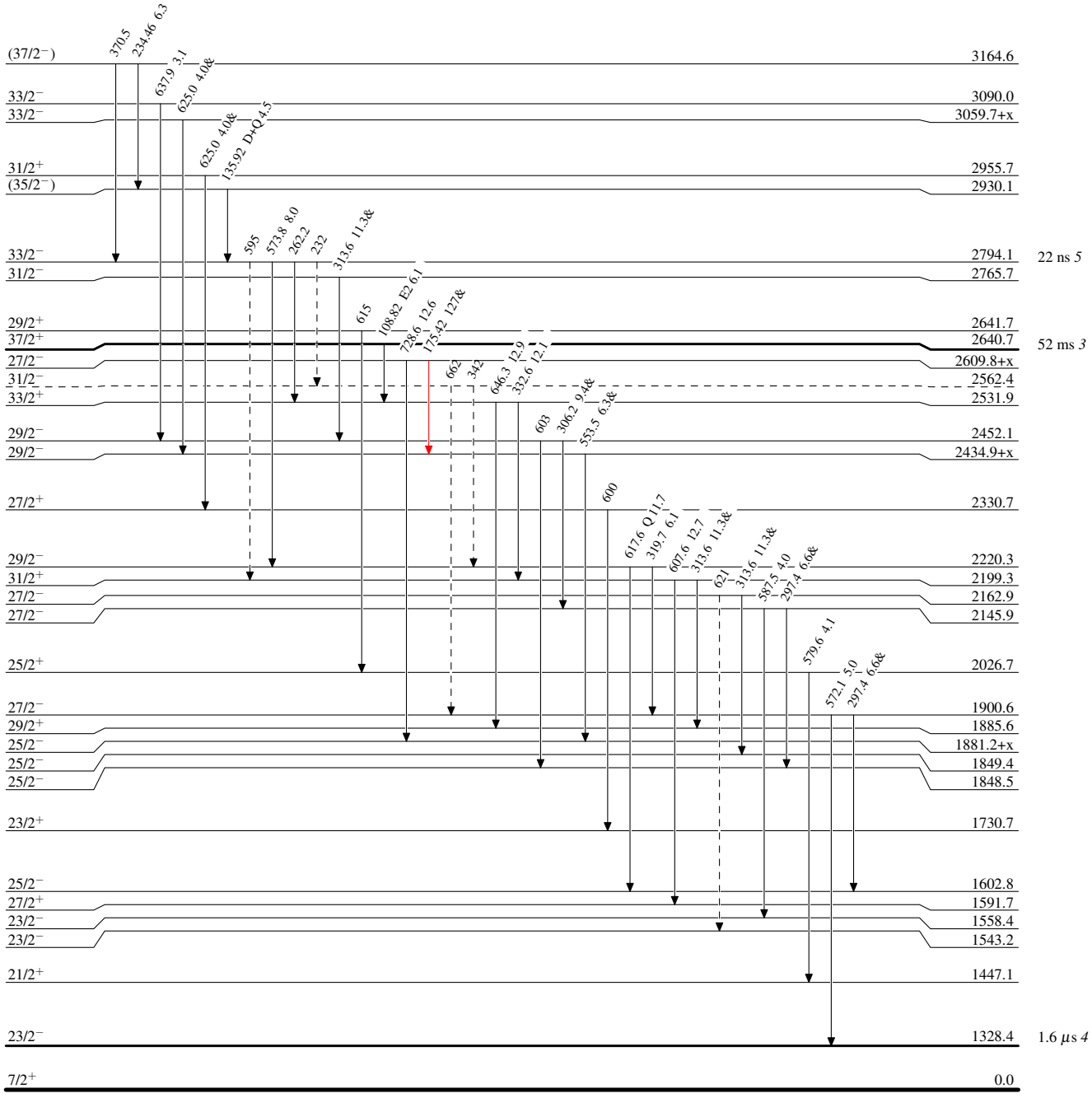
Legend

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

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

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

γ Decay (Uncertain)



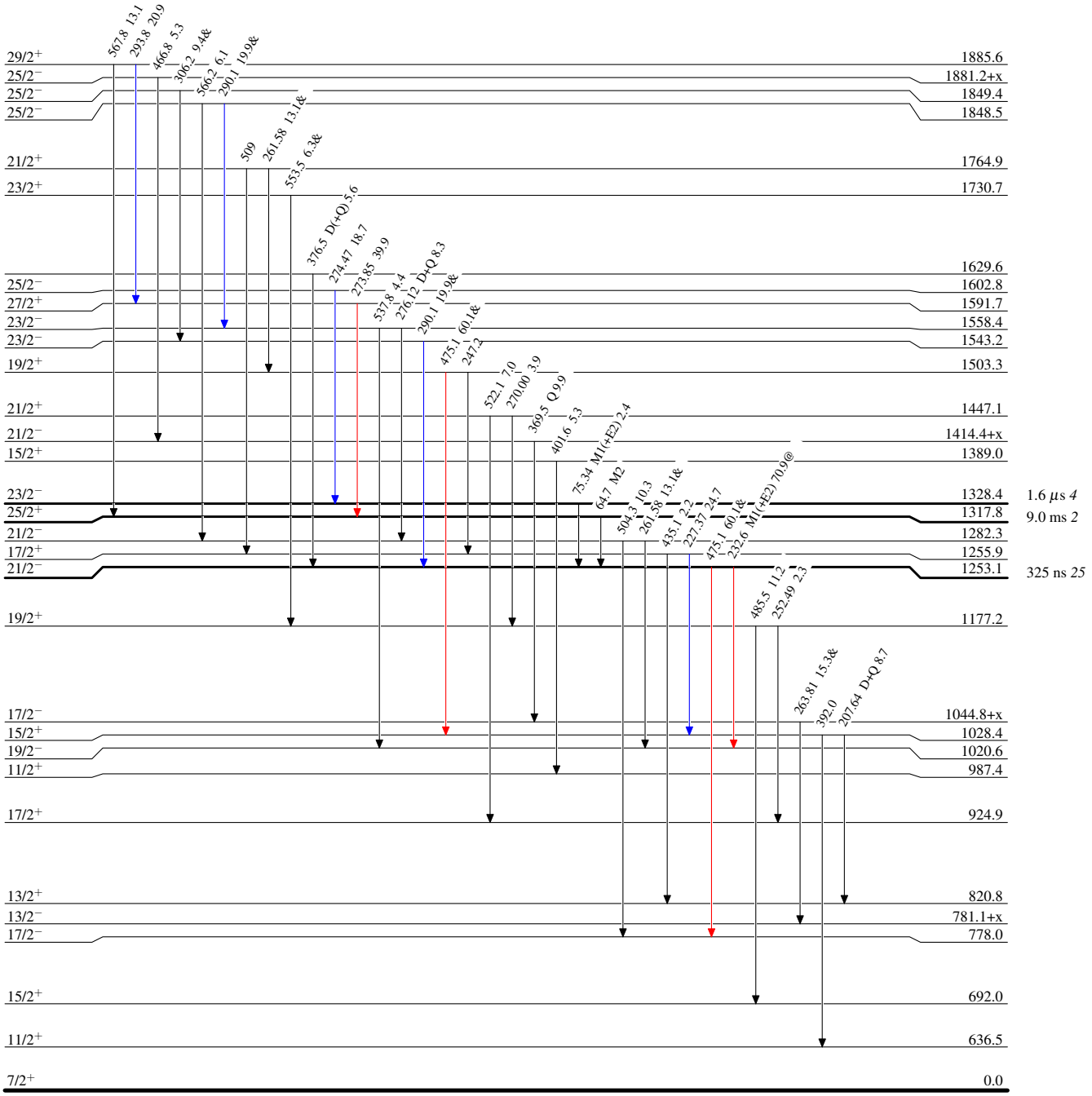
$^{179}_{73}Ta_{106}$

^{176}Yb(^{7}Li,4nγ) E=38 MeV 1982Ba21

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

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



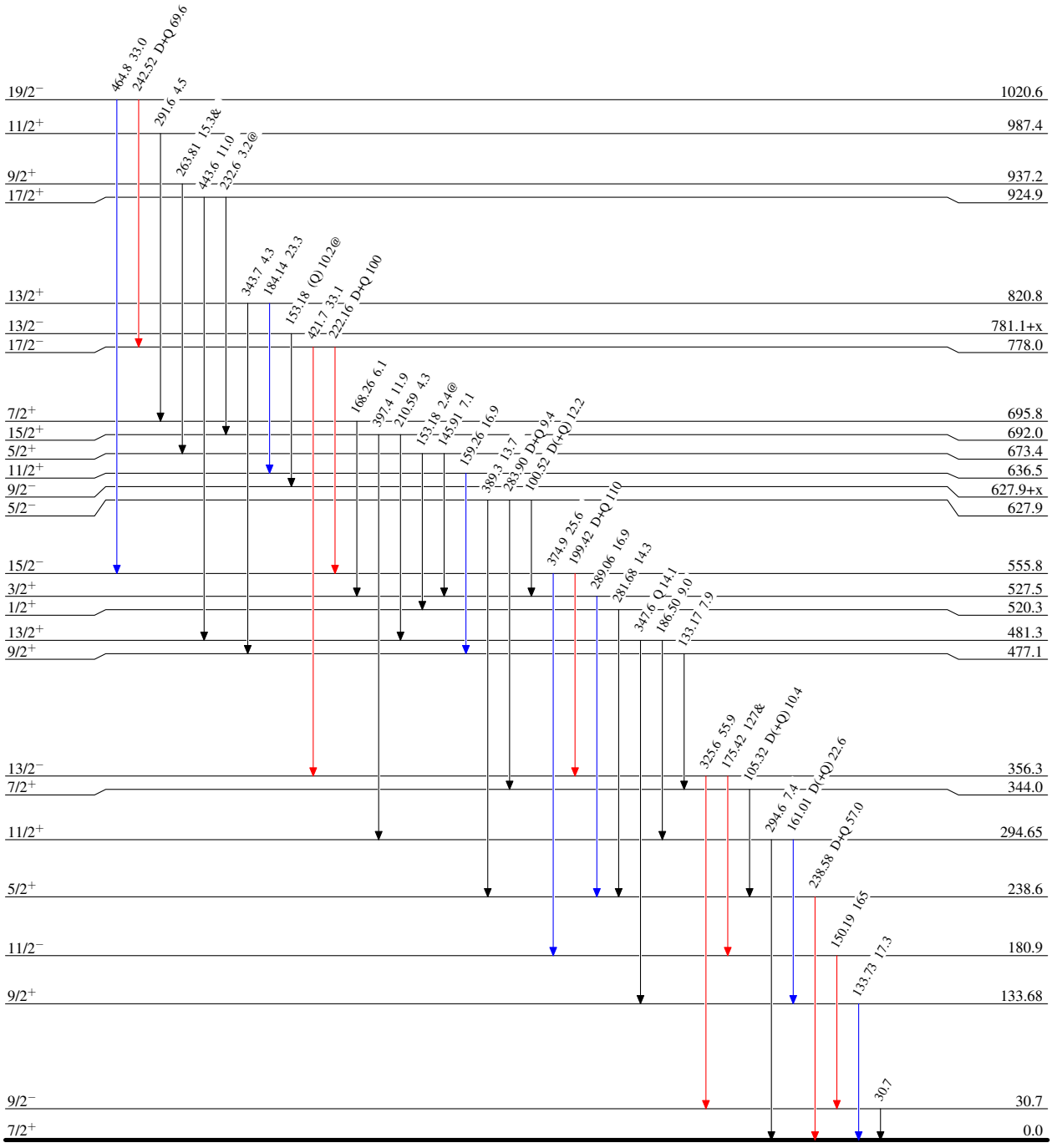
$^{179}_{73}Ta_{106}$

^{176}Yb(^{7}Li,4nγ) E=38 MeV 1982Ba21

Level Scheme (continued)

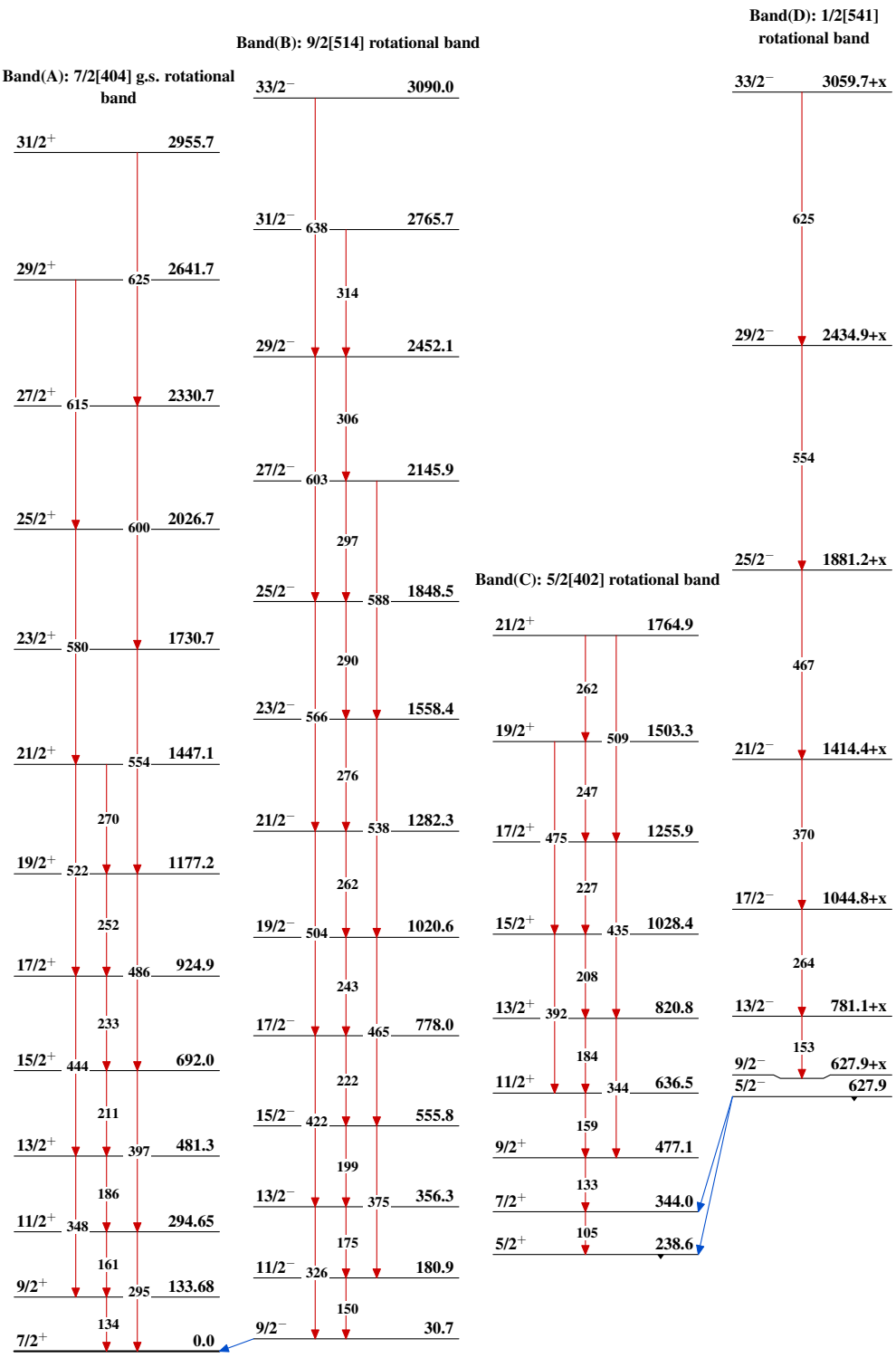
Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

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



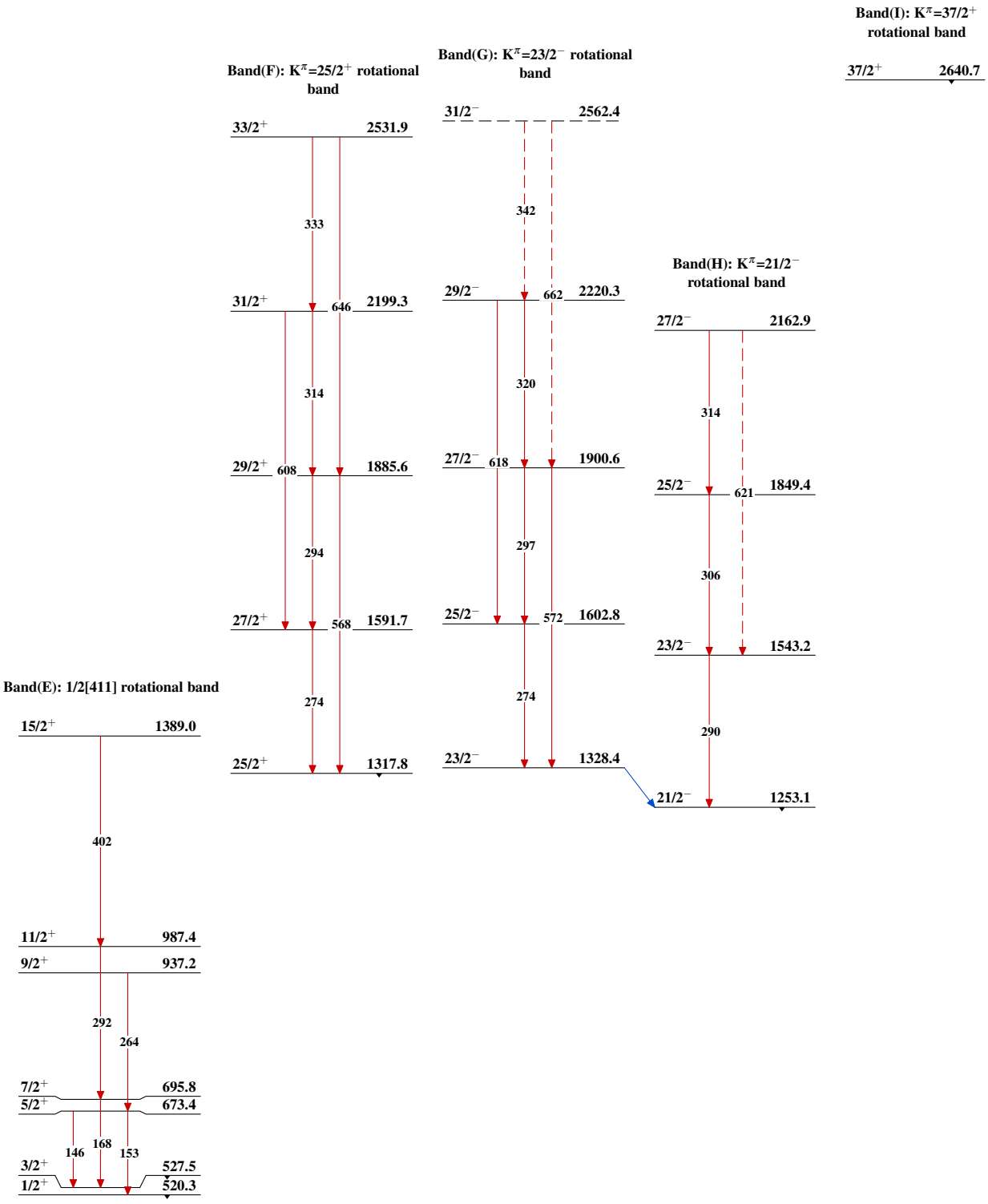
$^{179}_{73}Ta_{106}$

^{176}Yb(^{7}Li,4nγ) E=38 MeV 1982Ba21



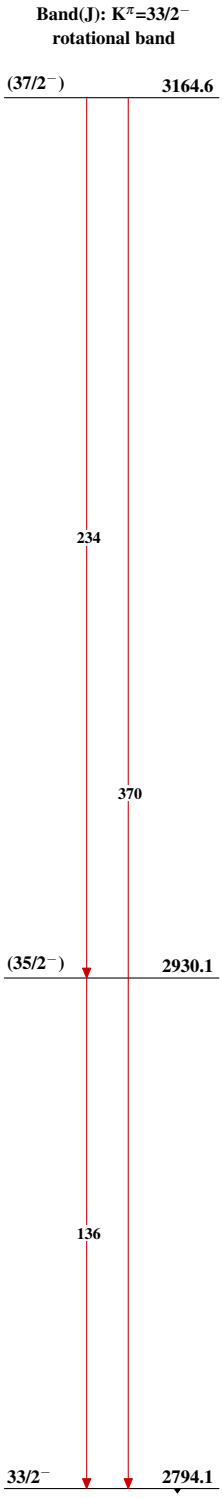
$^{179}_{73}Ta_{106}$

^{176}Yb(^{7}Li,4nγ) E=38 MeV 1982Ba21 (continued)



$^{179}_{73}Ta_{106}$

^{176}Yb(^{7}Li,4nγ) E=38 MeV 1982Ba21 (continued)



$^{179}_{73}Ta_{106}$