^{149}Sm(^{27}Al,4nγ) 2003Zh38,2010Zh26

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	31-Dec-2015

2003Zh38, 2010Zh26: E=130-150 MeV. Measured Eγ, Iγ, $\gamma\gamma$, γ(anisotropy) using Gemini array of 12 HPGe detectors each with BGO anti-Compton shield.

^{172}Re Levels

π1/2[541] from π1h$_{9/2}$ spherical orbital; π9/2[514] from π1h$_{11/2}$ orbital; ν1/2[521] from ν3p$_{3/2}$ orbital.
A, B, C and D correspond to first, second, third and fourth lowest i$_{13/2}$ quasineutrons.

E(level)[†]	J$^{\pi}$[‡]	Comments
0+z[#]	(3$^+$)	E(level): this level corresponds to 194.0+z, (4$^+$) in Adopted Levels.
98.0+z[#] *5*	(5$^+$)	
306.4+z[#] *7*	(7$^+$)	
611.5+z[#] *9*	(9$^+$)	
1001.5+z[#] *10*	(11$^+$)	
1455.3+z[#] *12*	(13$^+$)	
1933.2+z[#] *13*	(15$^+$)	
1980.6+z *13*	(15$^+$)	
2423.1+z[#] *14*	(17$^+$)	
2513.4+z *14*	(17$^+$)	
2979.6+z[#] *15*	(19$^+$)	
3599.2+z[#] *15*	(21$^+$)	
4275.8+z[#] *16*	(23$^+$)	
5008.0+z[#] *17*	(25$^+$)	
0+u[&]	(6$^-$)	
90.9+u[a] *5*	(7$^-$)	
118.0+u[&] *5*	(8$^-$)	
267.9+u[a] *5*	(9$^-$)	
311.8+u[&] *6*	(10$^-$)	
525.4+u[a] *6*	(11$^-$)	
609.8+u[&] *7*	(12$^-$)	
871.6+u[a] *7*	(13$^-$)	
1016.5+u[&] *8*	(14$^-$)	
1304.7+u[a] *8*	(15$^-$)	
1518.2+u[&] *9*	(16$^-$)	
1816.2+u[a] *9*	(17$^-$)	
2098.1+u[&] *10*	(18$^-$)	
2392.9+u[a] *10*	(19$^-$)	
2737.7+u[&] *10*	(20$^-$)	
3019.5+u[a] *10*	(21$^-$)	
3422.4+u[&] *11*	(22$^-$)	
3684.3+u[a] *11*	(23$^-$)	
4159.2+u[&] *13*	(24$^-$)	
4385.3+u[a] *13*	(25$^-$)	
4929.7+u[&] *14*	(26$^-$)	
5128.8+u[a] *14*	(27$^-$)	

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^{149}Sm(^{27}Al,4nγ) 2003Zh38,2010Zh26 (continued)

^{172}Re Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	Comments
0+v[d]	(7$^+$)	Additional information 1.
193.7+v[e] 4	(8$^+$)	
413.1+v[d] 4	(9$^+$)	
658.8+v[e] 5	(10$^+$)	
845.1+v[f] 7	(10$^+$)	
898.3+v[d] 6	(11$^+$)	
1020.1+v[g] 8	(11$^+$)	
1133.1+v[e] 6	(12$^+$)	
1216.5+v[f] 8	(12$^+$)	
1365.3+v[d] 6	(13$^+$)	
1433.3+v[g] 9	(13$^+$)	
1626.4+v[e] 7	(14$^+$)	
1675.8+v[f] 9	(14$^+$)	
1883.2+v[d] 7	(15$^+$)	
1943.5+v[g] 9	(15$^+$)	
2161.9+v[e] 9	(16$^+$)	
2237.5+v[f] 10	(16$^+$)	
2445.7+v[d] 9	(17$^+$)	
2552.9+v[g] 10	(17$^+$)	
2890.8+v[f] 10	(18$^+$)	
3244.1+v[g] 10	(19$^+$)	
0+w[@]	(4$^+$)	Additional information 2.
166.2+w[@] 5	(6$^+$)	
422.6+w[@] 7	(8$^+$)	
768.6+w[@] 9	(10$^+$)	
1185.9+w[@] 10	(12$^+$)	
1647.2+w[@] 12	(14$^+$)	
2136.1+w[@] 13	(16$^+$)	
2652.4+w[@] 14	(18$^+$)	
3222.8+w[@] 15	(20$^+$)	
0+s	(8$^+$)	
185.5+s[c] 5	(9$^-$)	
281.1+s[b] 7	(10$^-$)	
420.0+s[c] 9	(11$^-$)	
605.6+s[b] 10	(12$^-$)	
820.3+s[c] 10	(13$^-$)	
1072.3+s[b] 10	(14$^-$)	
1340.7+s[c] 10	(15$^-$)	
1637.1+s[b] 11	(16$^-$)	
1942.6+s[c] 11	(17$^-$)	
2262.6+s[b] 11	(18$^-$)	
2589.1+s[c] 11	(19$^-$)	
2914.9+s[b] 12	(20$^-$)	
3241.4+s[c] 12	(21$^-$)	
3554.5+s[b] 12	(22$^-$)	
3874.6+s[c] 12	(23$^-$)	

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^{149}Sm(^{27}Al,4nγ) 2003Zh38,2010Zh26 (continued)

^{172}Re Levels (continued)

† From least-squares fit by evaluator to Eγ values.
‡ Based on in-band electromagnetic transition probabilities, level spacing systematics, angular distributions for selected transitions, and systematics of neighboring nuclei. The assignments are tentative.
# Band(A): π1/2[541]⊗ν1/2[521],α=1. Band crossing at $\hbar\omega$≈0.24 MeV, proposed in 2003Zh38 as due to pair of AB neutrons. Spins are one unit lower here as compared to those in Adopted Levels and band structure given in 2014Ha22. For energy matching with the Adopted Levels and 2014Ha22, add 194.0 keV to each value.
@ Band(a): π1/2[541]⊗ν1/2[521],α=0. Proposed as possible signature partner of band 3. Spins are one unit lower here as compared to those in Adopted Levels and band structure given in 2014Ha22. For energy matching with the Adopted Levels and 2014Ha22, 0+w is equivalent to 223.4+z.
& Band(B): π1/2[541]⊗$\nu_{13/2}$,α=0. Band crossing at $\hbar\omega$≈0.2 MeV, proposed in 2003Zh38 as due to pair of BC(AD) neutrons. For energy matching with the Adopted Levels and 2014Ha22, add 96 keV to each value.
a Band(b): π1/2[541]⊗$\nu i_{13/2}$,α=1. See comment for its signature partner. For energy matching with the Adopted Levels and 2014Ha22, add 96 keV to each value.
b Band(C): π9/2[514]⊗$\nu i_{13/2}$,α=0. Band crossing at $\hbar\omega$≈0.3 MeV, proposed in 2003Zh38 as due to pair of BC neutrons. For energy matching with the Adopted Levels and 2014Ha22, 0+s is equivalent to 0+u.
c Band(c): π9/2[514]⊗$\nu i_{13/2}$,α=1. See comment for its signature partner. For energy matching with the Adopted Levels and 2014Ha22, 0+s is equivalent to 0+u.
d Band(D): π9/2[514]⊗ν5/2[512],α=1. Band proposed in 2010Zh26.
e Band(d): π9/2[514]⊗ν5/2[512],α=0. Band proposed in 2010Zh26.
f Band(E): π5/2[402]⊗$\nu i_{13/2}$,α=0. Band proposed in 2010Zh26.
g Band(e): π5/2[402]⊗$\nu i_{13/2}$,α=1. Band proposed in 2010Zh26.

γ(^{172}Re)

R(θ)=angular asymmetry ratio. The data were obtained with detectors positioned at 32° (or 148°), 58° (or 122°) and 90° relative to the beam direction. Expected values are 1.30 *15* for ΔJ=2, quadrupole (E2) transitions, and much less than 1 for ΔJ=1, dipole transitions. Some ΔJ=1 transitions in band 1 have R(θ)>1, typical of stretched quadrupole transitions, these have been assigned as D+Q by the evaluator, implying significant quadrupole admixture.

E$_\gamma$‡	I$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.#	Comments
90.9 *5*	≥13.7	90.9+u	(7$^-$)	0+u	(6$^-$)	D+Q@	R(θ)=0.97 *20*.
95.6 *5*	≥22.5	281.1+s	(10$^-$)	185.5+s	(9$^-$)	D+Q@	R(θ)=1.50 *15*. α(exp)=5.1 *9* (from intensity balance, if 138.9γ is M1).
98.0 *5*	≥10.0	98.0+z	(5$^+$)	0+z	(3$^+$)		
118.0 *5*	≥17.5	118.0+u	(8$^-$)	0+u	(6$^-$)	Q	R(θ)=1.8 *3*.
138.9 *5*	56.5	420.0+s	(11$^-$)	281.1+s	(10$^-$)	D+Q@	R(θ)=1.20 *12*.
149.9 *5*	27.0	267.9+u	(9$^-$)	118.0+u	(8$^-$)	D	R(θ)=0.75 *8*.
166.2 *5*		166.2+w	(6$^+$)	0+w	(4$^+$)		
174.8 *5*		1020.1+v	(11$^+$)	845.1+v	(10$^+$)		
177.0 *5*	7.4	267.9+u	(9$^-$)	90.9+u	(7$^-$)		Iγ(177.0)/Iγ(149.9)=0.25 *3*.
185.5& *5*	≥250.0&	185.5+s	(9$^-$)	0+s	(8$^+$)	D	R(θ)=0.85 *8*.
185.5& *5*	≤101.6&	605.6+s	(12$^-$)	420.0+s	(11$^-$)	D+Q@	R(θ)=0.97 *10*. α(exp)=0.042 *6* (from intensity balance, if 138.9γ is M1).
186.3 *5*		845.1+v	(10$^+$)	658.8+v	(10$^+$)		
193.5 *5*		193.7+v	(8$^+$)	0+v	(7$^+$)		
193.8 *5*	94.6	311.8+u	(10$^-$)	118.0+u	(8$^-$)	Q	R(θ)=1.53 *15*.
196.3 *5*		1216.5+v	(12$^+$)	1020.1+v	(11$^+$)		
208.4 *5*	≥28.3	306.4+z	(7$^+$)	98.0+z	(5$^+$)	Q	R(θ)=1.48 *15*.
213.8 *5*	30.2	525.4+u	(11$^-$)	311.8+u	(10$^-$)	D	R(θ)=0.64 *10*.

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^{149}Sm(^{27}Al,4nγ) 2003Zh38,2010Zh26 (continued)

$\gamma(^{172}Re)$ (continued)

E_γ[‡]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
214.6 *5*	64.0	820.3+s	(13$^-$)	605.6+s	(12$^-$)	D+Q[@]	R(θ)=1.09 *10*.
216.7 *5*		1433.3+v	(13$^+$)	1216.5+v	(12$^+$)		
219.1 *5*		413.1+v	(9$^+$)	193.7+v	(8$^+$)		
232.3 *5*		1365.3+v	(13$^+$)	1133.1+v	(12$^+$)		
234.7 *5*		1133.1+v	(12$^+$)	898.3+v	(11$^+$)		
239.2 *5*		898.3+v	(11$^+$)	658.8+v	(10$^+$)		
242.5 *5*		1675.8+v	(14$^+$)	1433.3+v	(13$^+$)		
245.6 *5*		658.8+v	(10$^+$)	413.1+v	(9$^+$)		
251.9 *5*	54.0	1072.3+s	(14$^-$)	820.3+s	(13$^-$)	D+Q[@]	R(θ)=0.98 *10*.
256.4 *5*		422.6+w	(8$^+$)	166.2+w	(6$^+$)		
256.6 *5*		1883.2+v	(15$^+$)	1626.4+v	(14$^+$)		
257.5 *5*	11.4	525.4+u	(11$^-$)	267.9+u	(9$^-$)	Q	R(θ)=1.36 *15*. Iγ(257.5)/Iγ(213.8)=0.51 *5*.
260.9 *5*		1626.4+v	(14$^+$)	1365.3+v	(13$^+$)		
261.7 *5*	18.5	871.6+u	(13$^-$)	609.8+u	(12$^-$)	D	R(θ)=0.65 *10*.
267.7 *5*		1943.5+v	(15$^+$)	1675.8+v	(14$^+$)		
268.4 *5*	36.0	1340.7+s	(15$^-$)	1072.3+s	(14$^-$)	D+Q[@]	R(θ)=1.30 *15*.
281.7 *5*	5.0	3019.5+u	(21$^-$)	2737.7+u	(20$^-$)		
288.1 *5*	15.7	1304.7+u	(15$^-$)	1016.5+u	(14$^-$)	D	R(θ)=0.48 *10*.
293.8 *5*		2237.5+v	(16$^+$)	1943.5+v	(15$^+$)		
294.8 *5*	≥8.0	2392.9+u	(19$^-$)	2098.1+u	(18$^-$)		
296.4 *5*	24.3	1637.1+s	(16$^-$)	1340.7+s	(15$^-$)	D+Q[@]	R(θ)=0.98 *10*.
298.0 *5*	121.0	609.8+u	(12$^-$)	311.8+u	(10$^-$)	Q	R(θ)=1.31 *13*.
298.0 *5*	≤15.0	1816.2+u	(17$^-$)	1518.2+u	(16$^-$)		
305.1 *5*	63.6 *32*	611.5+z	(9$^+$)	306.4+z	(7$^+$)	Q	R(θ)=1.38 *10*.
305.5 *5*	22.0	1942.6+s	(17$^-$)	1637.1+s	(16$^-$)		
313.0 *5*	8.6	3554.5+s	(22$^-$)	3241.4+s	(21$^-$)		
315.3 *5*		2552.9+v	(17$^+$)	2237.5+v	(16$^+$)		
320.0 *5*	22.0	2262.6+s	(18$^-$)	1942.6+s	(17$^-$)		
320.0 *5*	7.0	3874.6+s	(23$^-$)	3554.5+s	(22$^-$)		
324.5[a] *5*		605.6+s	(12$^-$)	281.1+s	(10$^-$)		E_γ: from figure 4 of 2003Zh38.
325.8 *5*	15.0	2914.9+s	(20$^-$)	2589.1+s	(19$^-$)		
326.5 *5*	20.0	2589.1+s	(19$^-$)	2262.6+s	(18$^-$)		
326.5 *5*	10.0	3241.4+s	(21$^-$)	2914.9+s	(20$^-$)		
337.8 *5*		2890.8+v	(18$^+$)	2552.9+v	(17$^+$)		
346.0 *5*		768.6+w	(10$^+$)	422.6+w	(8$^+$)		
346.2 *5*	14.2	871.6+u	(13$^-$)	525.4+u	(11$^-$)	Q	R(θ)=1.20 *15*. Iγ(346.2)/Iγ(261.7)=0.76 *7*.
353.1 *5*		3244.1+v	(19$^+$)	2890.8+v	(18$^+$)		
371.5 *5*		1216.5+v	(12$^+$)	845.1+v	(10$^+$)		
390.0 *5*	61.5 *31*	1001.5+z	(11$^+$)	611.5+z	(9$^+$)	Q	R(θ)=1.35 *10*.
400.3 *5*	17.6	820.3+s	(13$^-$)	420.0+s	(11$^-$)	Q	R(θ)=1.27 *15*. Iγ(400.3)/Iγ(214.6)=0.39 *4*.
406.7 *5*	100.0	1016.5+u	(14$^-$)	609.8+u	(12$^-$)	Q	R(θ)=1.47 *15*.
413.2 *5*		1433.3+v	(13$^+$)	1020.1+v	(11$^+$)		
413.3 *5*		413.1+v	(9$^+$)	0+v	(7$^+$)		
417.3 *5*		1185.9+w	(12$^+$)	768.6+w	(10$^+$)		
433.1 *5*	21.6	1304.7+u	(15$^-$)	871.6+u	(13$^-$)	Q	R(θ)=1.32 *13*. Iγ(433.1)/Iγ(288.1)=1.68 *20*.
453.8 *5*	82.1 *41*	1455.3+z	(13$^+$)	1001.5+z	(11$^+$)	Q	R(θ)=1.35 *10*.
459.5 *5*		1675.8+v	(14$^+$)	1216.5+v	(12$^+$)		
461.3 *5*		1647.2+w	(14$^+$)	1185.9+w	(12$^+$)		
465.1 *5*		658.8+v	(10$^+$)	193.7+v	(8$^+$)		
466.7 *5*	20.0	1072.3+s	(14$^-$)	605.6+s	(12$^-$)	Q	R(θ)=1.29 *13*. Iγ(466.7)/Iγ(251.9)=0.59 *6*.

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^{149}Sm(^{27}Al,4nγ) 2003Zh38,2010Zh26 (continued)

γ(^{172}Re) (continued)

E_γ[‡]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
467.0 *5*		1365.3+v	(13$^+$)	898.3+v	(11$^+$)		
474.4 *5*		1133.1+v	(12$^+$)	658.8+v	(10$^+$)		
477.9 *5*	43.0 *22*	1933.2+z	(15$^+$)	1455.3+z	(13$^+$)	Q	R(θ)=1.28 *10*.
485.3 *5*		898.3+v	(11$^+$)	413.1+v	(9$^+$)		
488.9 *5*		2136.1+w	(16$^+$)	1647.2+w	(14$^+$)		
489.9 *5*	36.0 *18*	2423.1+z	(17$^+$)	1933.2+z	(15$^+$)	Q	R(θ)=1.30 *10*.
493.3 *5*		1626.4+v	(14$^+$)	1133.1+v	(12$^+$)		
501.7 *5*	78.6	1518.2+u	(16$^-$)	1016.5+u	(14$^-$)	Q	R(θ)=1.30 *15*.
510.0 *5*		1943.5+v	(15$^+$)	1433.3+v	(13$^+$)		
511.5 *5*	≥29.6	1816.2+u	(17$^-$)	1304.7+u	(15$^-$)		
516.3 *5*		2652.4+w	(18$^+$)	2136.1+w	(16$^+$)		
518.1 *5*		1883.2+v	(15$^+$)	1365.3+v	(13$^+$)		
520.5 *5*	24.0	1340.7+s	(15$^-$)	820.3+s	(13$^-$)	Q	R(θ)=1.10 *10*. Iγ(520.5)/Iγ(268.4)=0.79 *8*.
525.3 *5*	16.0 *24*	1980.6+z	(15$^+$)	1455.3+z	(13$^+$)	Q	R(θ)=1.30 *10*.
532.8 *5*	8.0 *24*	2513.4+z	(17$^+$)	1980.6+z	(15$^+$)		
535.5 *5*		2161.9+v	(16$^+$)	1626.4+v	(14$^+$)		
556.5 *5*	22.0 *33*	2979.6+z	(19$^+$)	2423.1+z	(17$^+$)	Q	R(θ)=1.20 *20*.
561.8 *5*		2237.5+v	(16$^+$)	1675.8+v	(14$^+$)		
562.5 *5*		2445.7+v	(17$^+$)	1883.2+v	(15$^+$)		
564.8 *5*	22.0	1637.1+s	(16$^-$)	1072.3+s	(14$^-$)	Q	R(θ)=1.50 *20*. Iγ(564.8)/Iγ(296.4)=0.93 *9*.
570.4 *5*		3222.8+w	(20$^+$)	2652.4+w	(18$^+$)		
576.7 *5*	≥34.4	2392.9+u	(19$^-$)	1816.2+u	(17$^-$)	Q	R(θ)=1.38 *15*.
579.9 *5*	48.5	2098.1+u	(18$^-$)	1518.2+u	(16$^-$)	Q	R(θ)=1.38 *15*.
601.9 *5*	30.0	1942.6+s	(17$^-$)	1340.7+s	(15$^-$)		Iγ(601.9)/Iγ(305.5)=1.42 *15*.
609.5 *5*		2552.9+v	(17$^+$)	1943.5+v	(15$^+$)		
619.6 *5*	18.0 *27*	3599.2+z	(21$^+$)	2979.6+z	(19$^+$)		
625.6 *5*	21.0	2262.6+s	(18$^-$)	1637.1+s	(16$^-$)		Iγ(625.6)/Iγ(320.0)=0.94 *10*.
626.7 *5*	19.1	3019.5+u	(21$^-$)	2392.9+u	(19$^-$)		
633.3 *5*	5.0	3874.6+s	(23$^-$)	3241.4+s	(21$^-$)		
639.5 *5*	32.0	2737.7+u	(20$^-$)	2098.1+u	(18$^-$)		
639.5 *5*	12.0	3554.5+s	(22$^-$)	2914.9+s	(20$^-$)		
646.5 *5*	16.0	2589.1+s	(19$^-$)	1942.6+s	(17$^-$)		
652.3 *5*	13.5	2914.9+s	(20$^-$)	2262.6+s	(18$^-$)		
652.3 *5*	13.5	3241.4+s	(21$^-$)	2589.1+s	(19$^-$)		
653.3 *5*		2890.8+v	(18$^+$)	2237.5+v	(16$^+$)		
664.8 *5*	≥22.5	3684.3+u	(23$^-$)	3019.5+u	(21$^-$)		
676.6 *5*	12.0 *36*	4275.8+z	(23$^+$)	3599.2+z	(21$^+$)		
684.7 *5*	16.3	3422.4+u	(22$^-$)	2737.7+u	(20$^-$)		
691.4 *5*		3244.1+v	(19$^+$)	2552.9+v	(17$^+$)		
701.0 *5*	≥13.0	4385.3+u	(25$^-$)	3684.3+u	(23$^-$)		
732.2 *5*	7.0 *21*	5008.0+z	(25$^+$)	4275.8+z	(23$^+$)		
736.8 *5*	8.0	4159.2+u	(24$^-$)	3422.4+u	(22$^-$)		
743.5 *5*	≥6.0	5128.8+u	(27$^-$)	4385.3+u	(25$^-$)		
770.5 *5*	≥4.0	4929.7+u	(26$^-$)	4159.2+u	(24$^-$)		

[†] Values are from 2003Zh38, divided here by a factor of 10. Uncertainties are stated by 2003Zh38 as 5-30%. Evaluator assigns as follows: 5% for Iγ>30, 15% for Iγ=15-30, and 30% for Iγ<15.

[‡] $\Delta E\gamma$=0.5 keV assigned in 2003Zh38.

[#] From angular asymmetry measurement in ^{149}Sm(^{27}Al,4nγ) (2003Zh38). Mult=Q indicates ΔJ=2 (most likely E2) and mult=D indicates ΔJ=1, dipole (most likely M1 or M1+E2 in a coupled band).

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^{149}Sm(^{27}Al,4nγ) 2003Zh38,2010Zh26 (continued)

$\gamma(^{172}Re)$ (continued)

@ R(θ) value is ≥1, typical of stretched quadrupole transitions, but band structure suggests ΔJ=1 transition. The evaluator interprets such a transition as ΔJ=1, D+Q, with a significant quadrupole admixture.
& Multiply placed with intensity suitably divided.
a Placement of transition in the level scheme is uncertain.

^{149}Sm(^{27}Al,4nγ) 2003Zh38,2010Zh26

Level Scheme

Intensities: Relative I_γ

@ Multiply placed: intensity suitably divided

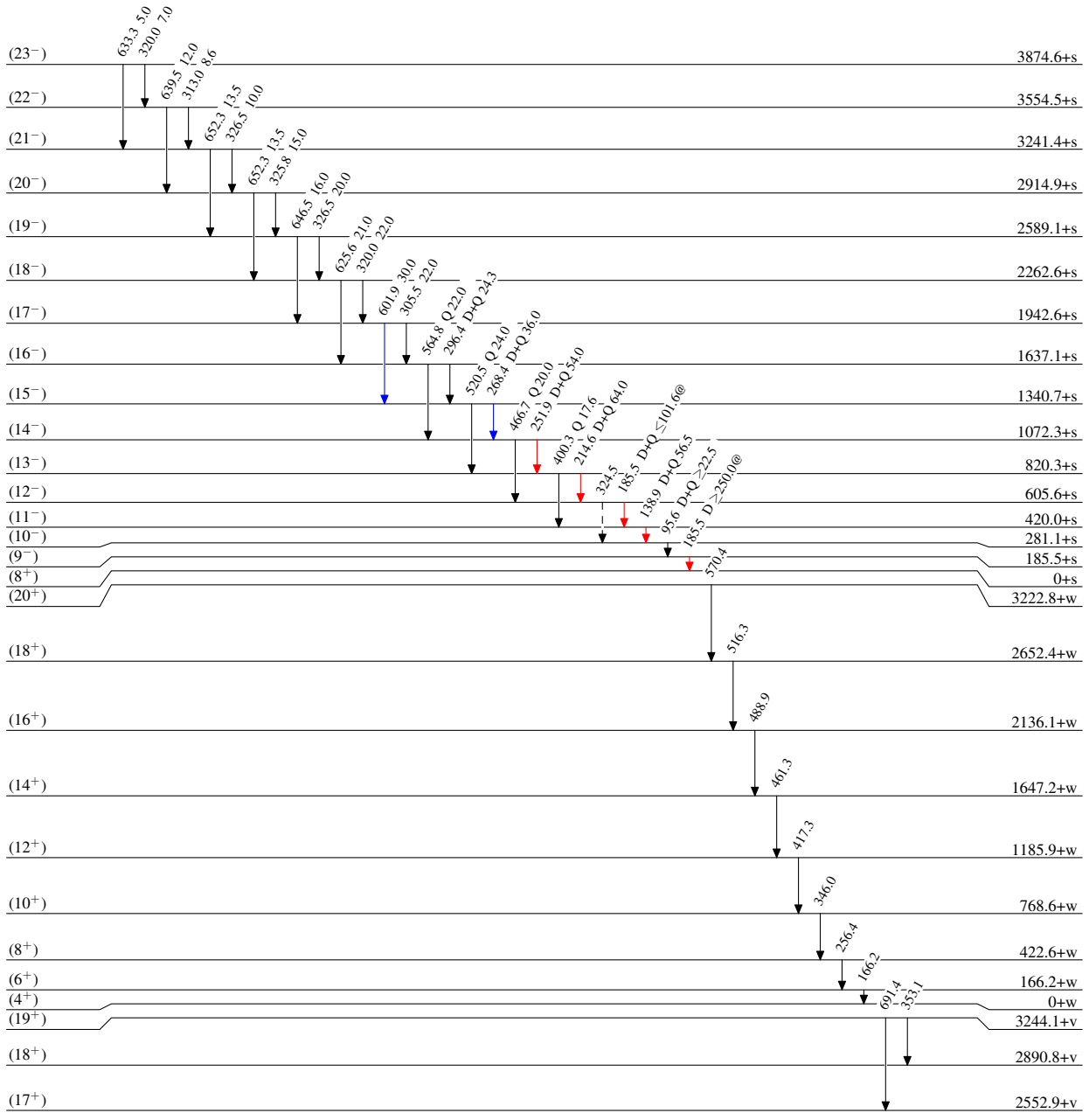
Legend

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

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

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

γ Decay (Uncertain)



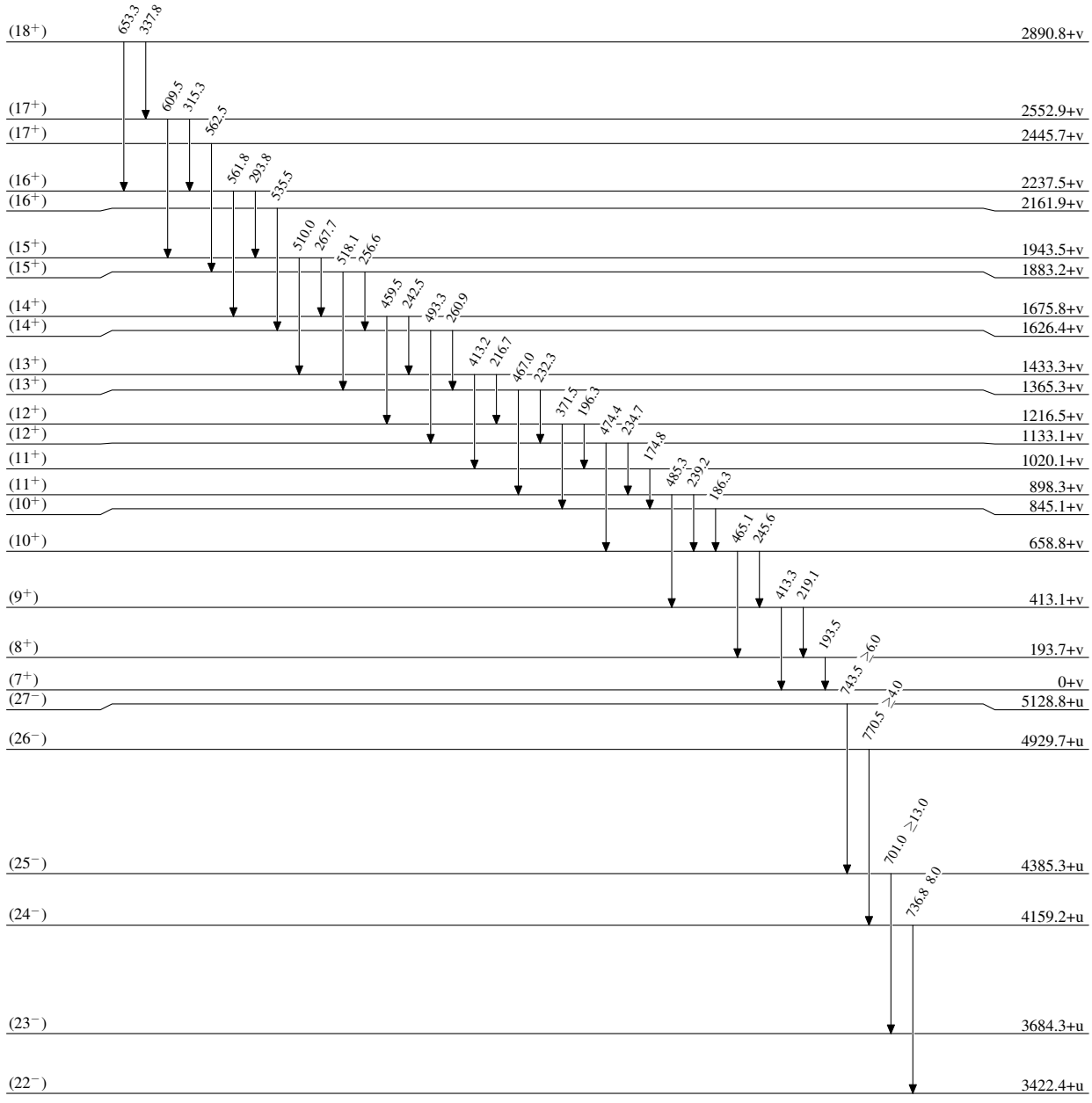
$^{172}_{75}Re_{97}$

^{149}Sm(^{27}Al,4nγ) 2003Zh38,2010Zh26

Level Scheme (continued)

Intensities: Relative I_γ
@ Multiply placed: intensity suitably divided

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



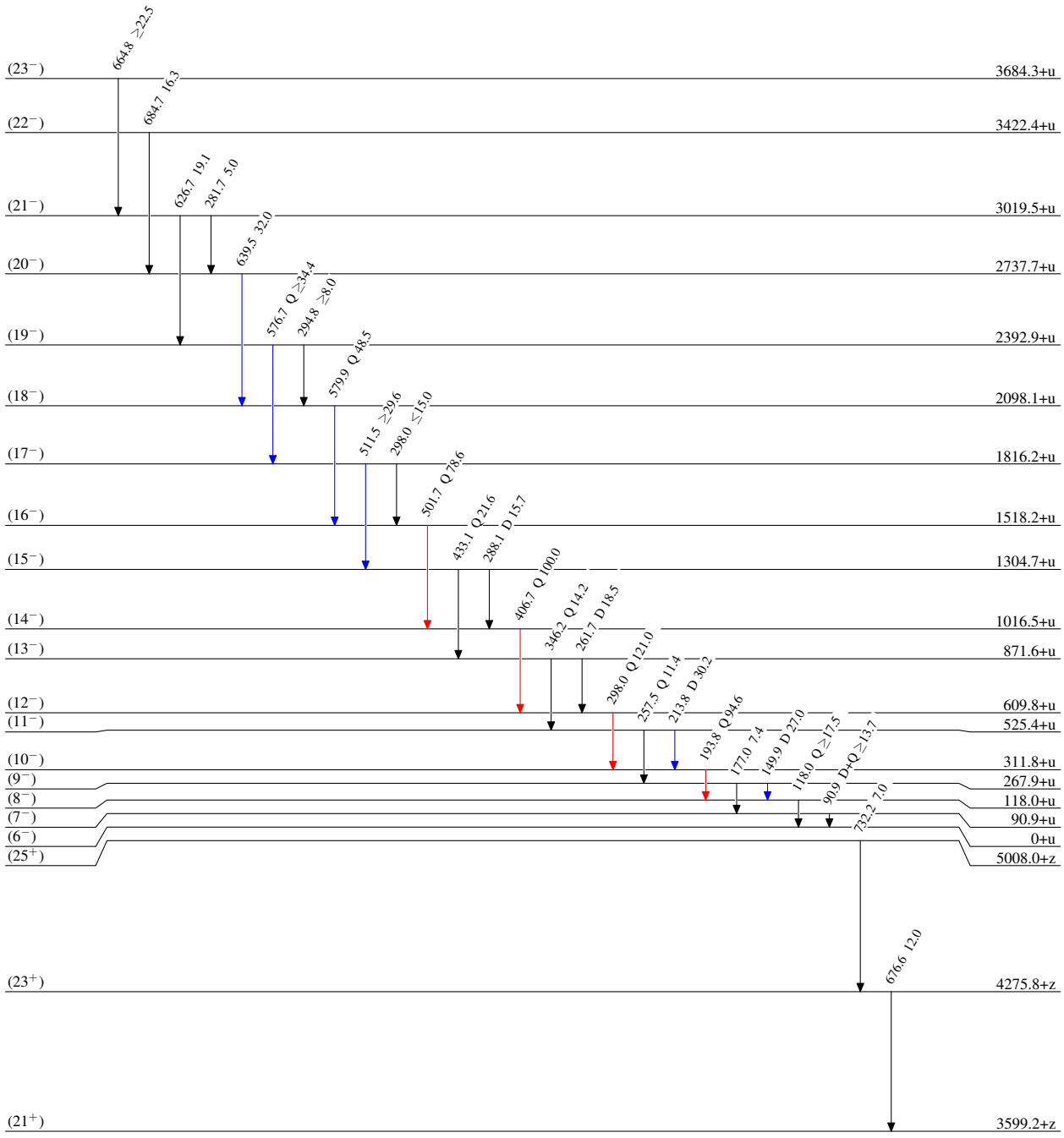
$^{172}_{75}Re_{97}$

$^{149}Sm(^{27}Al,4n\gamma)$ 2003Zh38,2010Zh26

Level Scheme (continued)

Intensities: Relative I_γ
@ Multiply placed: intensity suitably divided

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



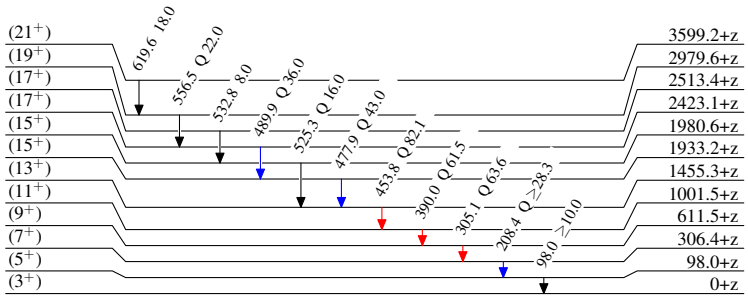
$^{172}_{75}Re_{97}$

^{149}Sm(^{27}Al,4nγ) 2003Zh38,2010Zh26

Level Scheme (continued)

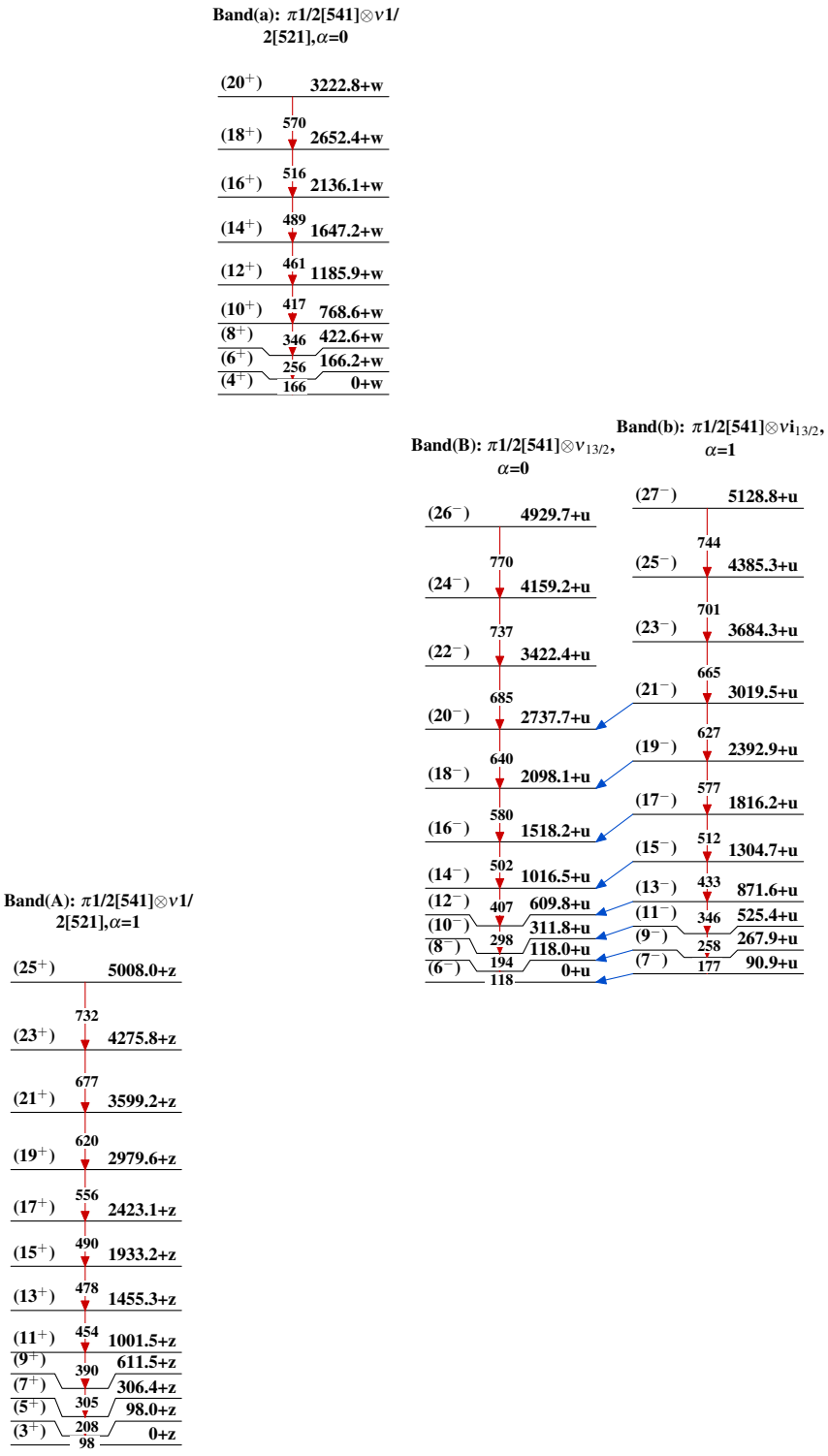
Intensities: Relative I_γ
@ Multiply placed: intensity suitably divided

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



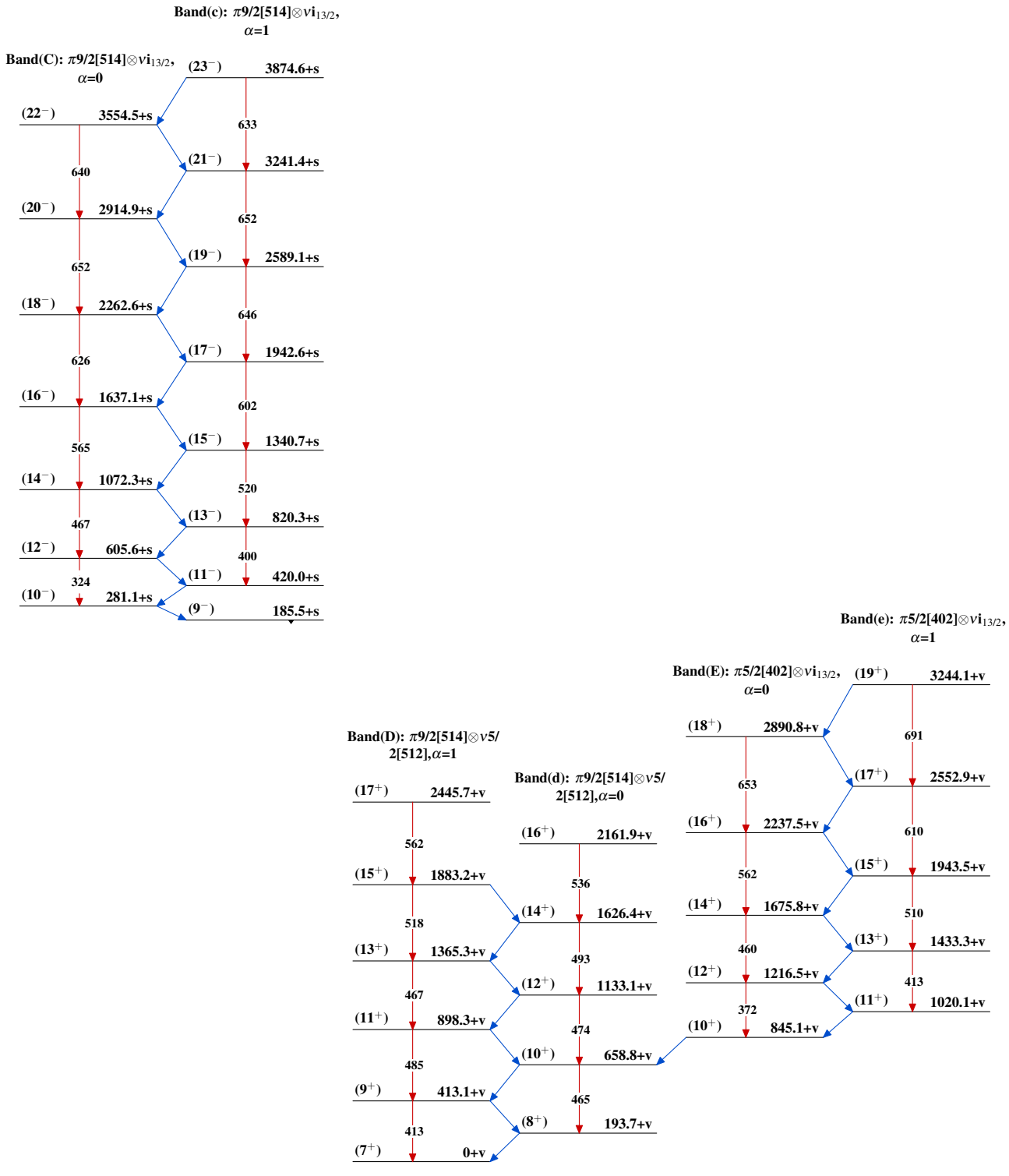
$^{172}_{75}Re_{97}$

$^{149}Sm(^{27}Al,4n\gamma)$ 2003Zh38,2010Zh26



$^{172}_{75}Re_{97}$

$^{149}Sm(^{27}Al,4n\gamma)$ 2003Zh38,2010Zh26 (continued)



$^{172}_{75}Re_{97}$