

$^{150}\text{Nd}(^{36}\text{S},6n\gamma), ^{150}\text{Nd}(^{34}\text{S},4n\gamma)$ 1999Li03,1990Ka11

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

1999Li03: $E(^{36}\text{S})=177$ MeV. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$, $\gamma\gamma(\theta)$ (DCO) using OSIRIS and GASP arrays. The OSIRIS array consisted of 12 Compton-suppressed Ge detectors and 48 BGO crystals. The GASP array consisted of 40 Compton-suppressed Ge detectors and 80 BGO inner-ball detectors.

1990Ka11: $E(^{34}\text{S})=157$ MeV. Measured $E\gamma$, $I\gamma$ with an intrinsic Ge detector at 0° in coincidence with an 8-element Na(Tl) Sum Spectrometer; deduced $T_{1/2}$ using the Recoil-Distance method and the Argonne plunger device.

Other: **1987Rz01** using $^{150}\text{Nd}(^{34}\text{S},4n\gamma)$ measured $E\gamma$ - $E\gamma$ correlations with an array of six Compton-suppressed Ge detectors; suggested superdeformation at high spins with an axis ratio of 1.76.

 ^{180}Os Levels

E(level) [†]	$J\pi^{\ddagger}$	$T_{1/2}$ [#]	Comments
0.0 ^{&}	0 ⁺		
132.00 ^{& 20}	2 ⁺	0.80 ns +21-14	
408.5 ^{& 3}	4 ⁺	27.0 ps 35	
794.7 ^{& 3}	6 ⁺	6.7 ps 17	
830.9 5	2 ⁺		
1257.1 ^{& 4}	8 ⁺	6.9 ps 14	
1514.6 5	4 ⁺		
1514.9 ^{h 6}	4 ⁻		
1604.9 ^{d 4}	5 ⁻		
1761.8 ^{h 5}	6 ⁻		
1766.6 ^{& 4}	10 ⁺		
1862.9 ^{d 4}	7 ⁻		
1877.2 4	6 ⁺		
1928.2 ^{a 4}	7 ⁻	17 ns 3	$T_{1/2}$: from 1999Li03.
1987.0 ^{b 6}	8 ⁻		
2086.7 ^{h 5}	8 ⁻		
2113.0 ^{a 6}	9 ⁻		
2176.1 ^{d 4}	9 ⁻		
2276.1 ^{b 6}	10 ⁻		
2285.6 ^{c 4}	(9 ⁻)		
2308.0 ^{& 4}	12 ⁺		
2428.8 ^{g 10}	(7 ⁺)		
2463.2 ^{h 5}	10 ⁻		
2467.5 ^{a 6}	11 ⁻		
2545.5 ^{d 4}	11 ⁻		
2598.7 ^{g 8}	(9 ⁺)		
2674.7 ^{c 4}	(11 ⁻)		
2684.0 ^{b 6}	12 ⁻		
2695.1 ^{i 6}	12 ⁺		
2874.3 ^{& 5}	14 ⁺		
2914.7 ^{g 6}	(11 ⁺)		
2918.9 ^{h 5}	12 ⁻		
2919.8 ^{a 6}	13 ⁻		
2983.3 ^{d 5}	13 ⁻		
3007.1 ^{i 5}	14 ⁺		

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$^{150}\text{Nd}(^{36}\text{S},6n\gamma), ^{150}\text{Nd}(^{34}\text{S},4n\gamma)$ **1999Li03,1990Ka11** (continued) ^{180}Os Levels (continued)

E(level) [†]	J π^{\ddagger}	T _{1/2} [#]	E(level) [†]	J π^{\ddagger}	E(level) [†]	J π^{\ddagger}
3138.5 ^c	5 (13 ⁻)		4751.2 ^e	9 (16 ⁻)	7031.2 ^b	12 26 ⁻
3176.6 ^b	6 14 ⁻		4769.2 ^c	6 (19 ⁻)	7143.7 ^j	10 26 ⁺
3341.7 ^g	8 (13 ⁺)		4820.2 ^j	6 20 ⁺	7180.2 ^d	9 27 ⁻
3401.9 ⁱ	5 16 ⁺		4978.2 ^b	8 20 ⁻	7289.3 ^h	14 26 ⁻
3443.7 ^a	6 15 ⁻		5037.7 ^f	9 (17 ⁻)	7430.2 ^a	13 27 ⁻
3450.9 ^h	6 14 ⁻		5046.0 ^d	6 21 ⁻	7533.2 ^c	11 (27 ⁻)
3477.5 ^d	5 15 ⁻		5163.8 ^h	10 20 ⁻	7614.3 ⁱ	11 28 ⁺
3493.7 ^j	5 16 ⁺		5235.5 ⁱ	6 22 ⁺	7663.5 ^g	15 (25 ⁺)
3656.0 ^c	5 (15 ⁻)		5253.4 ^g	12 (19 ⁺)	7842.9 ^b	13 28 ⁻
3704.3 ^f	7 (11 ⁻)	≤5 [@] ns	5294.1 ^a	9 21 ⁻	8013.4 ^j	12 28 ⁺
3735.2 ^b	6 16 ⁻		5348.5 ^e	9 (18 ⁻)	8064.1 ^d	11 29 ⁻
3856.2 ^e	8 (12 ⁻)		5386.5 ^c	6 (21 ⁻)	8302.3 ^a	14 29 ⁻
3885.2 ^g	10 (15 ⁺)		5549.5 ^j	8 22 ⁺	8346.3 ^c	12 (29 ⁻)
3925.0 ⁱ	5 18 ⁺		5625.7 ^b	10 22 ⁻	8553.6 ⁱ	12 30 ⁺
3982.8 ^d	5 17 ⁻		5667.6 ^d	6 23 ⁻	8571.8 ^g	16 (27 ⁺)
4026.7 ^h	8 16 ⁻		5787.0 ^h	12 22 ⁻	8740.2 ^b	14 30 ⁻
4031.7 ^a	6 17 ⁻		5951.2 ^a	10 23 ⁻	8917.1 ^j	13 30 ⁺
4038.0 ^f	8 (13 ⁻)		5980.4 ⁱ	8 24 ⁺	9022.4 ^d	12 31 ⁻
4133.4 ^j	6 18 ⁺		6023.5 ^g	13 (21 ⁺)	9218.1 ^c	13 (31 ⁻)
4200.1 ^c	5 (17 ⁻)		6054.4 ^c	8 (23 ⁻)	9275.8 ^a	14 31 ⁻
4249.0 ^e	8 (14 ⁻)		6298.4 ^b	11 24 ⁻	9595.0 ⁱ	13 32 ⁺
4342.7 ^b	7 18 ⁻		6322.4 ^j	9 24 ⁺	9717.8 ^b	15 32 ⁻
4487.1 ^f	8 (15 ⁻)		6378.5 ^d	8 25 ⁻	9844.4 ^j	14 32 ⁺
4498.0 ^d	6 19 ⁻		6495.2 ^h	13 24 ⁻	10050.2 ^d	13 33 ⁻
4530.1 ^g	11 (17 ⁺)		6652.1 ^a	12 25 ⁻	10149.9 ^c	14 (33 ⁻)
4541.7 ⁱ	6 20 ⁺		6766.1 ⁱ	9 26 ⁺	10736.7 ⁱ	14 34 ⁺
4598.9 ^h	9 18 ⁻		6770.3 ^c	9 (25 ⁻)	11144.7 ^c	15 (35 ⁻)
4651.8 ^a	8 19 ⁻		6822.6 ^g	14 (23 ⁺)		

[†] From a least-squares fit to E γ by evaluator.[‡] As proposed in 1999Li03 based on DCO ratios, assumed band structure, and γ -decay pattern.[#] From Recoil-Distance method in 1990Ka11, except where noted.[@] From $\gamma\gamma(t)$ in 1999Li03.[&] Band(A): g.s. band.^a Band(B): ($\pi=-, \alpha=1$), AE to AEBC.^b Band(C): ($\pi=-, \alpha=0$), AF to AFBC.^c Band(D): ($\pi=-, \alpha=1$), AG to AGBC or ABCG to ABCGEF.^d Band(E): ($\pi=-, \alpha=1$), BF to BFAD.^e Band(F): ($\nu 7/2[633]\nu 7/2[514]_{7-}(\pi 9/2[514]\pi 1/2[541])$ ($\pi=-, \alpha=0$).^f Band(G): ($\nu 7/2[633]\nu 7/2[514]_{7-}(\pi 9/2[514]\pi 1/2[541])$ ($\pi=-, \alpha=1$).^g Band(H): ($\pi=+, \alpha=1$), AC to ACEF.^h Band(I): ($\pi=-, \alpha=0$), BE to BEAD.ⁱ Band(J): ($\pi=+, \alpha=0$), ground band to AB, AB to AB EF.^j Band(K): ($\pi=+, \alpha=0$), ground band to BC, BC to BCEF.

$^{150}\text{Nd}(^{36}\text{S},6n\gamma), ^{150}\text{Nd}(^{34}\text{S},4n\gamma)$ **1999Li03,1990Ka11** (continued) $\gamma(^{180}\text{Os})$

R(DCO) from **1999Li03** using OSIRIS spectrometer. With detector setup R(DCO) is defined as 1 for stretched quadrupole or unstretched pure dipole transitions and 0.66 for stretched pure dipole or unstretched pure quadrupole transitions.

E_γ †	I_γ ‡&	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. @	Comments
51.7		1928.2	7 ⁻	1877.2	6 ⁺		E_γ : from 1989Kr01 .
(59)		1987.0	8 ⁻	1928.2	7 ⁻		
111.3 5	1.5 5	2285.6	(9 ⁻)	2176.1	9 ⁻		
126.0 5	1.1 3	2113.0	9 ⁻	1987.0	8 ⁻	D	DCO=0.33 14.
132.0 2	63 7	132.00	2 ⁺	0.0	0 ⁺	Q	DCO=1.07 20.
151.9 5	0.6 2	3856.2	(12) ⁻	3704.3	(11) ⁻	(D+Q)	DCO=1.0 4.
163.1 5	1.0 3	2276.1	10 ⁻	2113.0	9 ⁻	D	DCO=0.34 10.
169.9 5	0.2 1	2598.7	(9 ⁺)	2428.8	(7 ⁺)		
181.5 5	1.5 5	4038.0	(13) ⁻	3856.2	(12) ⁻		
184.0 5	1.2 4	2113.0	9 ⁻	1928.2	7 ⁻		
191.9 5	0.9 3	2467.5	11 ⁻	2276.1	10 ⁻	D	DCO=0.28 20.
210.6 5	0.8 3	4249.0	(14) ⁻	4038.0	(13) ⁻		
217.1 5	0.8 3	2684.0	12 ⁻	2467.5	11 ⁻	D	DCO=0.32 17.
223.5 5	0.6 2	2086.7	8 ⁻	1862.9	7 ⁻	D(+Q)	DCO=0.87 16.
235.8 5	0.9 3	2919.8	13 ⁻	2684.0	12 ⁻	D	DCO=0.42 11.
238.2 5	0.6 2	4487.1	(15) ⁻	4249.0	(14) ⁻		
247.5 5	0.7 2	1761.8	6 ⁻	1514.9	4 ⁻	Q	DCO=0.9 3.
256.6 5	0.9 3	3176.6	14 ⁻	2919.8	13 ⁻	D	DCO=0.3 3.
258.0 5	7.6 23	1862.9	7 ⁻	1604.9	5 ⁻		
263.8 5	0.9 3	4751.2	(16) ⁻	4487.1	(15) ⁻		
266.7 5	1.0 3	3443.7	15 ⁻	3176.6	14 ⁻	D	DCO=0.42 22.
276.3 2	100 10	408.5	4 ⁺	132.00	2 ⁺	Q	DCO=1.03 6.
286.8 5	0.9 3	5037.7	(17) ⁻	4751.2	(16) ⁻		
287.8 5	1.0 3	2463.2	10 ⁻	2176.1	9 ⁻		
289.1 5	2.4 7	2276.1	10 ⁻	1987.0	8 ⁻	Q	DCO=0.89 15.
290.2 5	0.9 3	3735.2	16 ⁻	3443.7	15 ⁻		
295.8 5	1.2 4	4031.7	17 ⁻	3735.2	16 ⁻		
311.3 5	0.1 1	4342.7	18 ⁻	4031.7	17 ⁻		
311.3 5	0.7 2	5348.5	(18) ⁻	5037.7	(17) ⁻		
312.1 5	2.6 8	3007.1	14 ⁺	2695.1	12 ⁺		
313.1 2	10.6 11	2176.1	9 ⁻	1862.9	7 ⁻	Q	DCO=1.19 16.
316.0 5	0.3 1	2914.7	(11 ⁺)	2598.7	(9 ⁺)	Q	DCO=1.00 17.
322.8 5	1.9 6	1928.2	7 ⁻	1604.9	5 ⁻	(Q)	DCO=0.8 3.
324.9 5	4.2 13	2086.7	8 ⁻	1761.8	6 ⁻	Q	DCO=0.93 13.
333.7 5	1.4 4	4038.0	(13) ⁻	3704.3	(11) ⁻		
353.6 5	4.1 12	2467.5	11 ⁻	2113.0	9 ⁻	Q	DCO=0.94 8.
363.2 5	1.3 4	1877.2	6 ⁺	1514.9	4 ⁻		
368.5 2	16.0 16	2545.5	11 ⁻	2176.1	9 ⁻	Q	DCO=1.04 12.
373.7 5	0.7 2	2918.9	12 ⁻	2545.5	11 ⁻		
376.2 5	5.1 15	2463.2	10 ⁻	2086.7	8 ⁻	Q	DCO=1.14 21.
386.2 2	93 9	794.7	6 ⁺	408.5	4 ⁺	Q	DCO=1.02 7.
387.2 5	3.7 11	2695.1	12 ⁺	2308.0	12 ⁺		
389.3 2	10.2 10	2674.7	(11 ⁻)	2285.6	(9 ⁻)	Q	DCO=0.84 12.
393.2 5	0.6 2	4249.0	(14) ⁻	3856.2	(12) ⁻		
395.1 2	13.2 13	3401.9	16 ⁺	3007.1	14 ⁺	Q	DCO=0.97 10.
407.3 5	4.2 13	2684.0	12 ⁻	2276.1	10 ⁻	Q	DCO=0.93 8.
408.6 5	2.8 8	2176.1	9 ⁻	1766.6	10 ⁺	D	DCO=0.74 22.
422.8 5	6.4 19	2285.6	(9 ⁻)	1862.9	7 ⁻		
427.0 5	1.1 3	3341.7	(13 ⁺)	2914.7	(11 ⁺)	Q	DCO=0.83 19.
437.8 2	17.6 18	2983.3	13 ⁻	2545.5	11 ⁻	Q	DCO=1.03 14.
449.1 5	0.8 3	4487.1	(15) ⁻	4038.0	(13) ⁻		

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$^{150}\text{Nd}(^{36}\text{S},6n\gamma), ^{150}\text{Nd}(^{34}\text{S},4n\gamma)$ **1999Li03,1990Ka11** (continued) $\gamma(^{180}\text{Os})$ (continued)

E_γ †	I_γ ‡&	E_i (level)	J_i^π	E_f	J_f^π	Mult. @	Comments
451.4 5	8.6 26	2919.8	13 ⁻	2467.5	11 ⁻	Q	DCO=1.09 7.
456.1 5	4.2 13	2918.9	12 ⁻	2463.2	10 ⁻	Q	DCO=1.12 24.
462.3 2	99 10	1257.1	8 ⁺	794.7	6 ⁺	Q	DCO=0.95 7.
464.1 2	13.9 14	3138.5	(13 ⁻)	2674.7	(11 ⁻)		
466.9 5	0.7 2	3450.9	14 ⁻	2983.3	13 ⁻		
492.8 5	7.6 23	3176.6	14 ⁻	2684.0	12 ⁻	Q	DCO=0.99 11.
494.4 2	14.8 15	3477.5	15 ⁻	2983.3	13 ⁻	Q	DCO=1.01 15.
499.8 5	0.6 2	2674.7	(11 ⁻)	2176.1	9 ⁻		
502.2 5	2.0 6	4751.2	(16 ⁻)	4249.0	(14 ⁻)		
505.3 2	10.2 10	3982.8	17 ⁻	3477.5	15 ⁻	Q	DCO=0.98 14.
510.0 2	91 9	1766.6	10 ⁺	1257.1	8 ⁺	Q	DCO=0.98 6.
515.2 2	18.5 19	4498.0	19 ⁻	3982.8	17 ⁻	Q	DCO=1.12 22.
517.5 2	20.5 21	3656.0	(15 ⁻)	3138.5	(13 ⁻)	Q	DCO=1.12 7.
523.1 2	19.4 20	3925.0	18 ⁺	3401.9	16 ⁺	Q	DCO=0.99 5.
523.8 2	11.0 11	3443.7	15 ⁻	2919.8	13 ⁻	Q	DCO=1.03 9.
527.3 2	29 3	3401.9	16 ⁺	2874.3	14 ⁺	Q	DCO=0.95 7.
532.7 5	4.1 12	3450.9	14 ⁻	2918.9	12 ⁻	Q	DCO=0.86 22.
538.9 5	4.3 13	3982.8	17 ⁻	3443.7	15 ⁻	Q	DCO=1.13 25.
541.2 2	76 8	2308.0	12 ⁺	1766.6	10 ⁺	Q	DCO=1.13 7.
543.5 5	4.2 13	3885.2	(15 ⁺)	3341.7	(13 ⁺)	Q	DCO=0.9 3.
544.1 2	18.1 18	4200.1	(17 ⁻)	3656.0	(15 ⁻)	Q	DCO=1.15 7.
548.0 2	15.6 16	5046.0	21 ⁻	4498.0	19 ⁻	Q	DCO=0.89 13.
550.8 5	0.2 1	5037.7	(17 ⁻)	4487.1	(15 ⁻)		
554.9 5	2.7 8	4031.7	17 ⁻	3477.5	15 ⁻	Q	DCO=1.02 23.
558.9 5	9.2 9	3735.2	16 ⁻	3176.6	14 ⁻	Q	DCO=0.89 14.
564.9 5	3.8 11	5163.8	20 ⁻	4598.9	18 ⁻		
566.1 2	62 6	2874.3	14 ⁺	2308.0	12 ⁺	Q	DCO=1.08 8.
569.1 2	15.4 15	4769.2	(19 ⁻)	4200.1	(17 ⁻)	Q	DCO=1.03 11.
572.2 5	4.0 12	4598.9	18 ⁻	4026.7	16 ⁻	Q	DCO=0.96 19.
575.8 5	5.2 16	4026.7	16 ⁻	3450.9	14 ⁻	Q	DCO=1.08 19.
588.3 5	7.1 21	4031.7	17 ⁻	3443.7	15 ⁻	Q	DCO=0.93 11.
591.8 5	1.0 3	3138.5	(13 ⁻)	2545.5	11 ⁻		
596.8 5	3.5 11	5348.5	(18 ⁻)	4751.2	(16 ⁻)		
604.7 5	8.7 26	1862.9	7 ⁻	1257.1	8 ⁺	D	DCO=0.64 7.
607.2 5	8.6 25	4342.7	18 ⁻	3735.2	16 ⁻	Q	DCO=1.08 11.
616.7 2	16.8 17	4541.7	20 ⁺	3925.0	18 ⁺	Q	DCO=1.01 7.
617.3 2	14.1 14	5386.5	(21 ⁻)	4769.2	(19 ⁻)	Q	DCO=1.01 16.
619.4 2	21.6 22	3493.7	16 ⁺	2874.3	14 ⁺	Q	DCO=1.01 6.
620.1 5	8.2 25	4651.8	19 ⁻	4031.7	17 ⁻	Q	DCO=0.91 17.
621.6 2	13.1 13	5667.6	23 ⁻	5046.0	21 ⁻	Q	DCO=0.91 16.
623.2 5	4.3 13	5787.0	22 ⁻	5163.8	20 ⁻		
635.5 5	6.9 21	4978.2	20 ⁻	4342.7	18 ⁻	Q	DCO=0.96 18.
639.7 2	17.9 18	4133.4	18 ⁺	3493.7	16 ⁺	Q	DCO=1.02 7.
642.3 5	7.2 22	5294.1	21 ⁻	4651.8	19 ⁻	Q	DCO=1.10 15.
644.9 5	6.0 6	4530.1	(17 ⁺)	3885.2	(15 ⁺)	Q	DCO=1.11 21.
647.5 5	7.0 21	5625.7	22 ⁻	4978.2	20 ⁻	(Q)	DCO=0.85 21.
657.1 5	3.5 11	5951.2	23 ⁻	5294.1	21 ⁻	Q	DCO=1.0 3.
667.9 5	7.5 23	6054.4	(23 ⁻)	5386.5	(21 ⁻)	Q	DCO=1.0 3.
670.2 5	0.6 2	1928.2	7 ⁻	1257.1	8 ⁺		
672.7 5	6.3 19	6298.4	24 ⁻	5625.7	22 ⁻		
684.7 5	0.8 3	1514.6	4 ⁺	830.9	2 ⁺		
686.8 2	12.9 13	4820.2	20 ⁺	4133.4	18 ⁺	Q	DCO=0.97 14.
693.8 2	13.9 14	5235.5	22 ⁺	4541.7	20 ⁺	Q	DCO=1.04 10.
699.4 2	11.8 12	3007.1	14 ⁺	2308.0	12 ⁺	Q	DCO=1.06 17.
699.8 5	0.6 2	830.9	2 ⁺	132.00	2 ⁺		
700.9 5	1.5 5	6652.1	25 ⁻	5951.2	23 ⁻		

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$^{150}\text{Nd}(^{36}\text{S},6n\gamma), ^{150}\text{Nd}(^{34}\text{S},4n\gamma)$ **1999Li03,1990Ka11** (continued) $\gamma(^{180}\text{Os})$ (continued)

E_γ †	I_γ ‡&	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. @	δ @	Comments
708.2 5	3.3 10	6495.2	24 ⁻	5787.0	22 ⁻			
710.9 5	7.6 23	6378.5	25 ⁻	5667.6	23 ⁻	Q		DCO=0.94 25.
715.9 5	4.8 14	6770.3	(25 ⁻)	6054.4	(23 ⁻)			
723.3 5	2.3 7	5253.4	(19 ⁺)	4530.1	(17 ⁺)	(Q)		DCO=0.78 15.
729.3 5	8.2 25	5549.5	22 ⁺	4820.2	20 ⁺	Q		DCO=1.05 17.
732.8 5	4.3 13	7031.2	26 ⁻	6298.4	24 ⁻			
744.9 5	9.8 10	5980.4	24 ⁺	5235.5	22 ⁺	Q		DCO=1.08 18.
762.9 5	3.0 9	7533.2	(27 ⁻)	6770.3	(25 ⁻)			
770.1 5	2.9 9	6023.5	(21 ⁺)	5253.4	(19 ⁺)	(Q)		DCO=0.9 4.
772.8 5	8.4 25	6322.4	24 ⁺	5549.5	22 ⁺	(Q)		DCO=0.8 4.
778.1 5	2.1 6	7430.2	27 ⁻	6652.1	25 ⁻			
783.5 5	0.7 2	2545.5	11 ⁻	1766.6	10 ⁺	D		DCO=0.6 3.
785.7 5	6.4 19	6766.1	26 ⁺	5980.4	24 ⁺	Q		DCO=1.1 3.
794.1 5	0.9 3	7289.3	26 ⁻	6495.2	24 ⁻			
799.1 5	1.2 4	6822.6	(23 ⁺)	6023.5	(21 ⁺)			
801.7 5	5.1 15	7180.2	27 ⁻	6378.5	25 ⁻			
810.0 5	3.0 9	1604.9	5 ⁻	794.7	6 ⁺	D		DCO=0.76 23.
811.7 5	1.6 5	7842.9	28 ⁻	7031.2	26 ⁻			
813.1 5	1.5 5	8346.3	(29 ⁻)	7533.2	(27 ⁻)			
821.3 5	4.1 12	7143.7	26 ⁺	6322.4	24 ⁺			
829.7 5	4.2 13	3138.5	(13 ⁻)	2308.0	12 ⁺			
840.9 5	1.3 4	7663.5	(25 ⁺)	6822.6	(23 ⁺)			
848.2 5	7.4 22	7614.3	28 ⁺	6766.1	26 ⁺			
869.7 5	1.7 5	8013.4	28 ⁺	7143.7	26 ⁺			
871.8 5	0.6 2	9218.1	(31 ⁻)	8346.3	(29 ⁻)			
872.1 5	0.5 2	8302.3	29 ⁻	7430.2	27 ⁻			
883.9 5	1.5 5	8064.1	29 ⁻	7180.2	27 ⁻			
^x 895#								
897.3 5	1.7 5	8740.2	30 ⁻	7842.9	28 ⁻			
903.7 5	0.8 3	8917.1	30 ⁺	8013.4	28 ⁺			
907.7 5	4.9 15	2674.7	(11 ⁻)	1766.6	10 ⁺	D		DCO=0.7 3.
908.2 5	0.8 3	8571.8	(27 ⁺)	7663.5	(25 ⁺)			
919.0 5	2.6 8	2176.1	9 ⁻	1257.1	8 ⁺			
927.3 5	0.6 2	9844.4	32 ⁺	8917.1	30 ⁺			
931.8 5	0.6 2	10149.9	(33 ⁻)	9218.1	(31 ⁻)			
939.3 5	1.4 4	8553.6	30 ⁺	7614.3	28 ⁺			
^x 948#								
958.3 5	1.3 4	9022.4	31 ⁻	8064.1	29 ⁻			
966.8 5	1.1 3	1761.8	6 ⁻	794.7	6 ⁺	D		DCO=1.6 6.
973.5 5	0.2 1	9275.8	31 ⁻	8302.3	29 ⁻			
977.5 5	0.3 1	9717.8	32 ⁻	8740.2	30 ⁻			
994.8 ^a 5	0.4 1	11144.7?	(35 ⁻)	10149.9	(33 ⁻)			
^x 1004#								
1020.2 5	1.1 3	3704.3	(11 ⁻)	2684.0	12 ⁻	D(+Q)	-0.5 +2-20	DCO=0.38 13.
1027.8 5	1.0 3	10050.2	33 ⁻	9022.4	31 ⁻			
1027.9 5	2.9 9	2285.6	(9 ⁻)	1257.1	8 ⁺			
1041.4 5	0.5 2	9595.0	32 ⁺	8553.6	30 ⁺			
^x 1077#								
1082.1 5	0.2 1	1877.2	6 ⁺	794.7	6 ⁺			
1106.4 5	0.2 1	1514.9	4 ⁻	408.5	4 ⁺			
1133.8 5	1.3 4	1928.2	7 ⁻	794.7	6 ⁺			
1141.7 ^a 5	0.2 1	10736.7?	34 ⁺	9595.0	32 ⁺			
1148.1 5	0.1 1	2914.7	(11 ⁺)	1766.6	10 ⁺			
1196.1 5	0.5 2	1604.9	5 ⁻	408.5	4 ⁺			

Continued on next page (footnotes at end of table)

$^{150}\text{Nd}(^{36}\text{S},6n\gamma),^{150}\text{Nd}(^{34}\text{S},4n\gamma)$ **1999Li03,1990Ka11** (continued) $\gamma(^{180}\text{Os})$ (continued)

E_γ †	I_γ ‡&	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. @	Comments
1236.9 5	0.6 2	3704.3	(11) ⁻	2467.5	11 ⁻	D(+Q)	DCO=1.9 7.
1468.6 5	0.1 1	1877.2	6 ⁺	408.5	4 ⁺		

† Uncertainty assigned by evaluator as 0.2 keV for $I_\gamma > 10$ and 0.5 keV for $I_\gamma < 10$, based on a general statement by [1999Li03](#).

‡ Uncertainty assigned by evaluator as 10% for $I_\gamma > 10$ and 30% for $I_\gamma < 10$, based on a general statement by [1999Li03](#).

In coincidence with Band(K).

@ From R(DCO) in [1999Li03](#).

& From the $^{150}\text{Nd}(^{36}\text{S},6n\gamma)$ reaction at $E(^{36}\text{S})=177$ MeV; normalized to $I_\gamma(276\gamma)=100$.

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

^x γ ray not placed in level scheme.

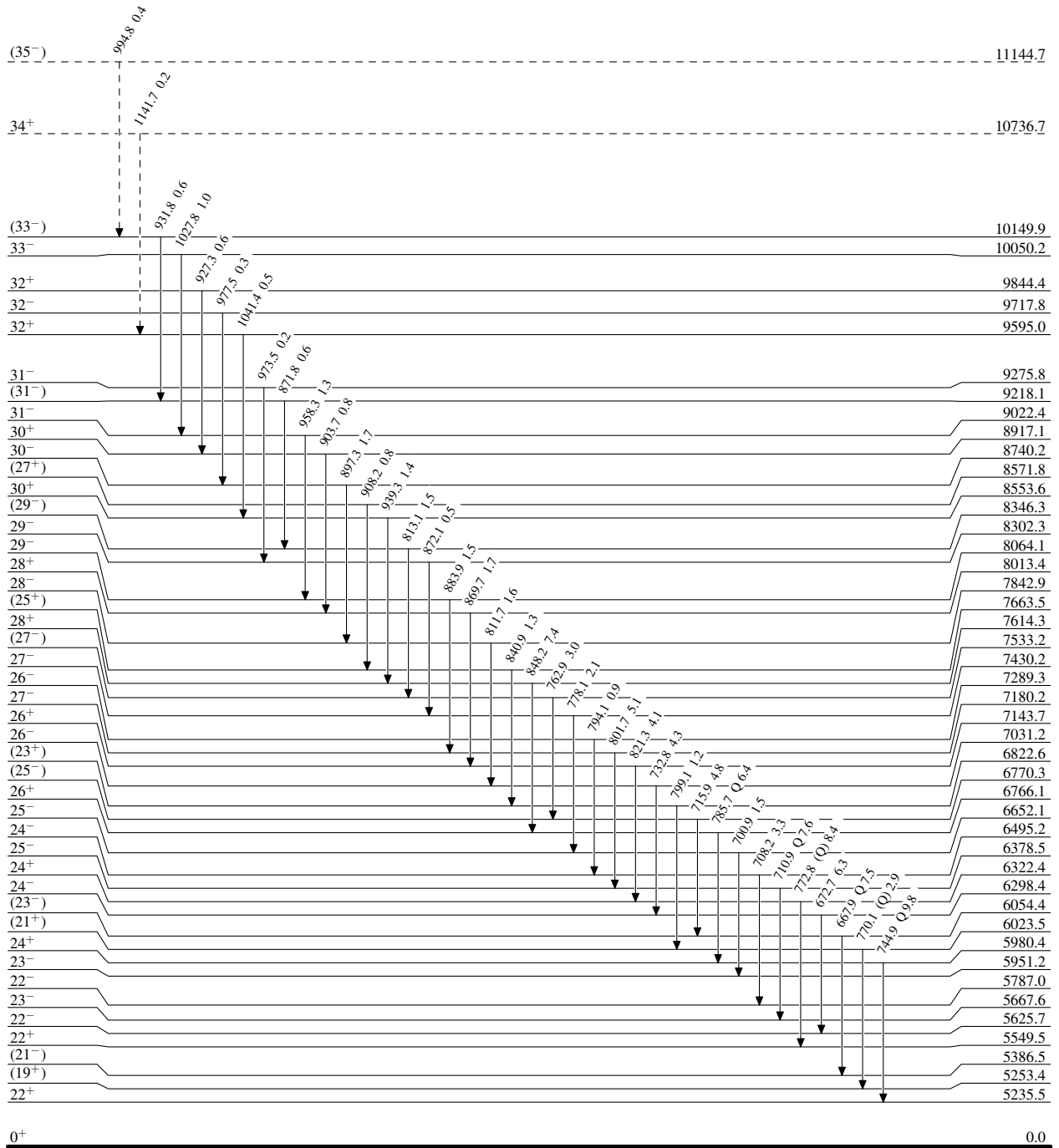
$^{150}\text{Nd}(^{36}\text{S},6\text{n}\gamma), ^{150}\text{Nd}(^{34}\text{S},4\text{n}\gamma)$ 1999Li03,1990Ka11

Legend

Level Scheme

Intensities: Relative I_γ

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



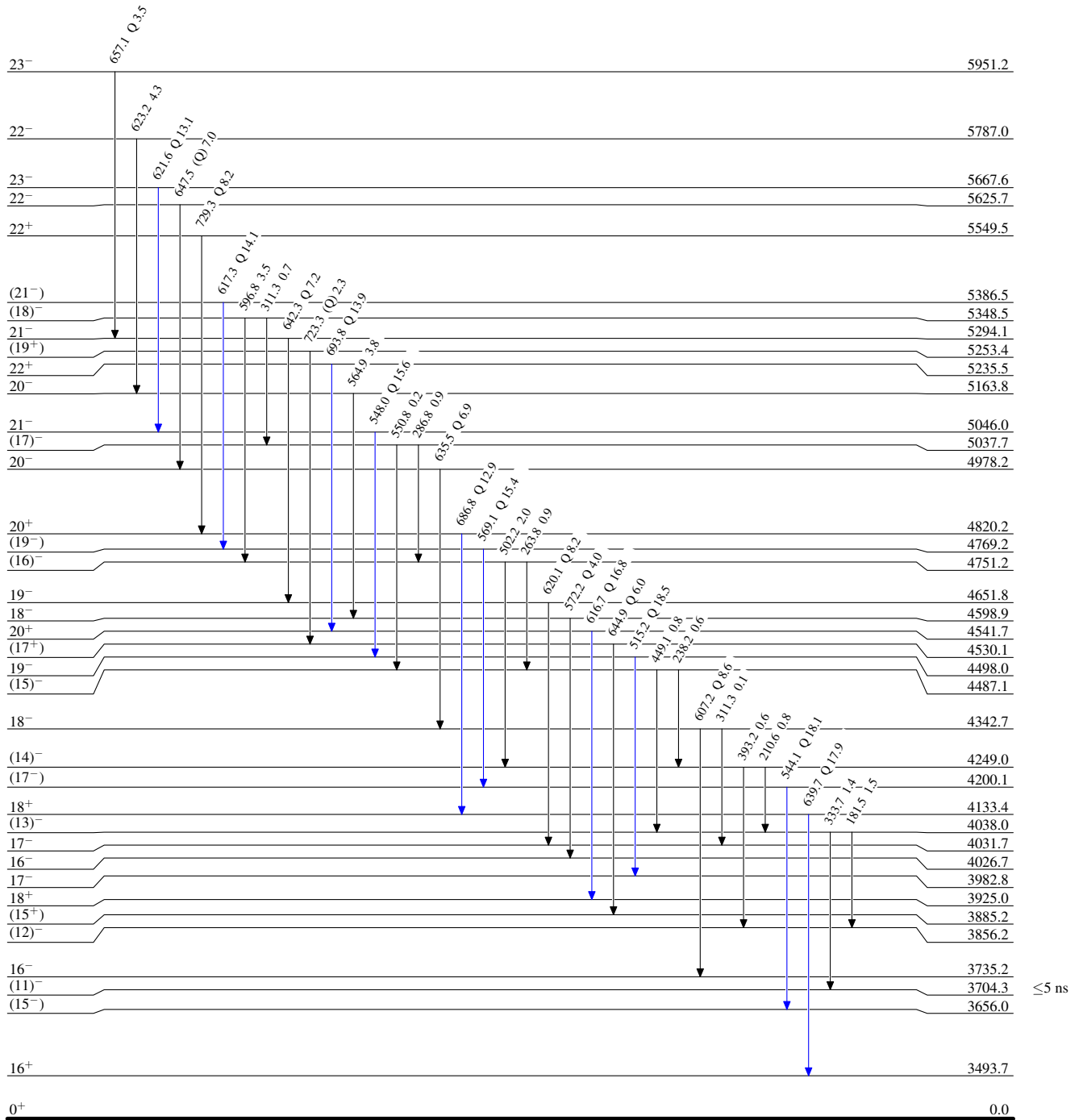
$^{150}\text{Nd}(\text{}^{36}\text{S},6n\gamma), ^{150}\text{Nd}(\text{}^{34}\text{S},4n\gamma)$ 1999Li03,1990Ka11

Level Scheme (continued)

Intensities: Relative I_γ

Legend

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



$^{180}_{76}\text{Os}_{104}$

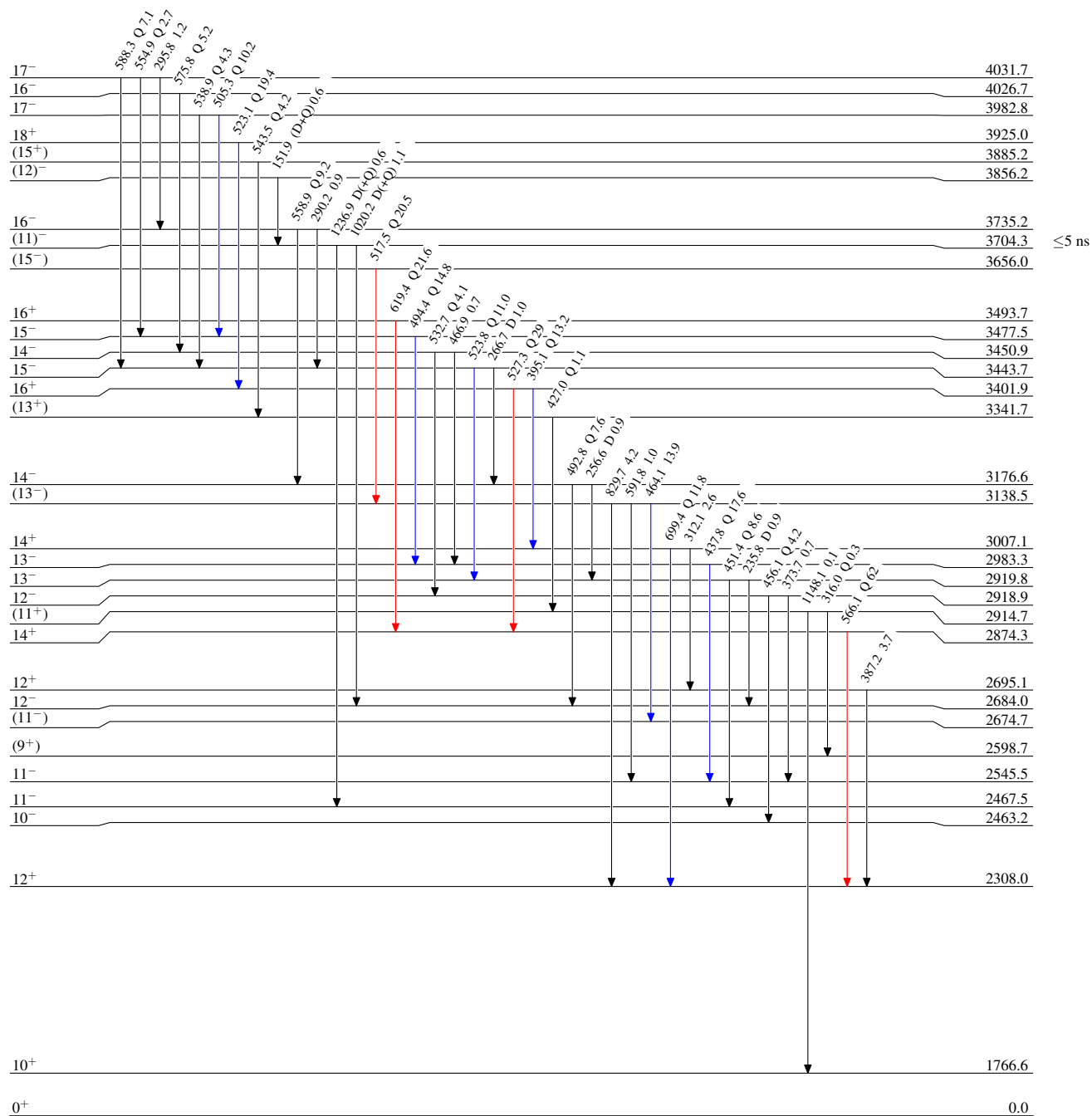
$^{150}\text{Nd}(^{36}\text{S},6n\gamma), ^{150}\text{Nd}(^{34}\text{S},4n\gamma)$ 1999Li03,1990Ka11

Level Scheme (continued)

Intensities: Relative I_γ

Legend

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



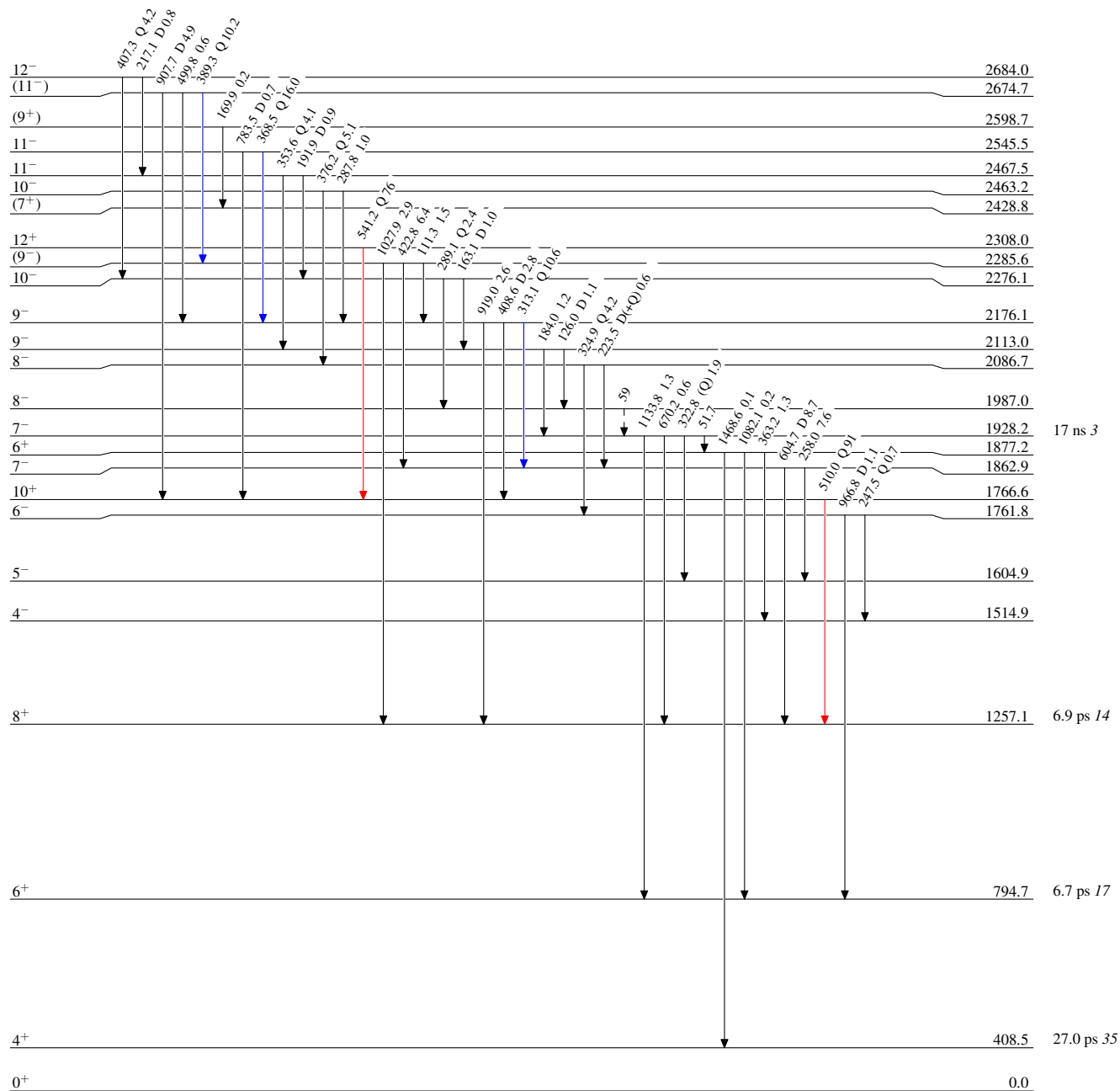
$^{150}\text{Nd}(^{36}\text{S},6n\gamma), ^{150}\text{Nd}(^{34}\text{S},4n\gamma)$ 1999Li03,1990Ka11

Legend

Level Scheme (continued)

Intensities: Relative I_γ

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

 $^{180}_{76}\text{Os}_{104}$

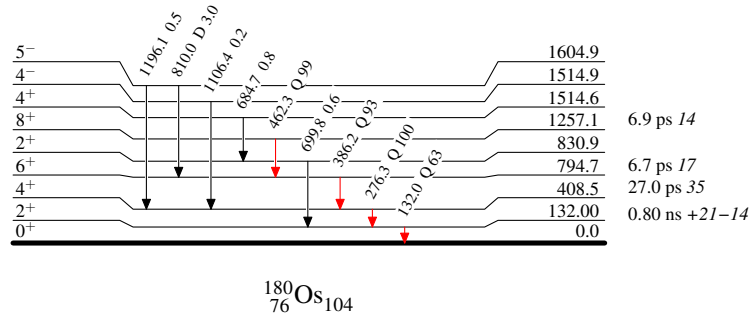
$^{150}\text{Nd}(^{36}\text{S},6n\gamma), ^{150}\text{Nd}(^{34}\text{S},4n\gamma)$ 1999Li03,1990Ka11

Level Scheme (continued)

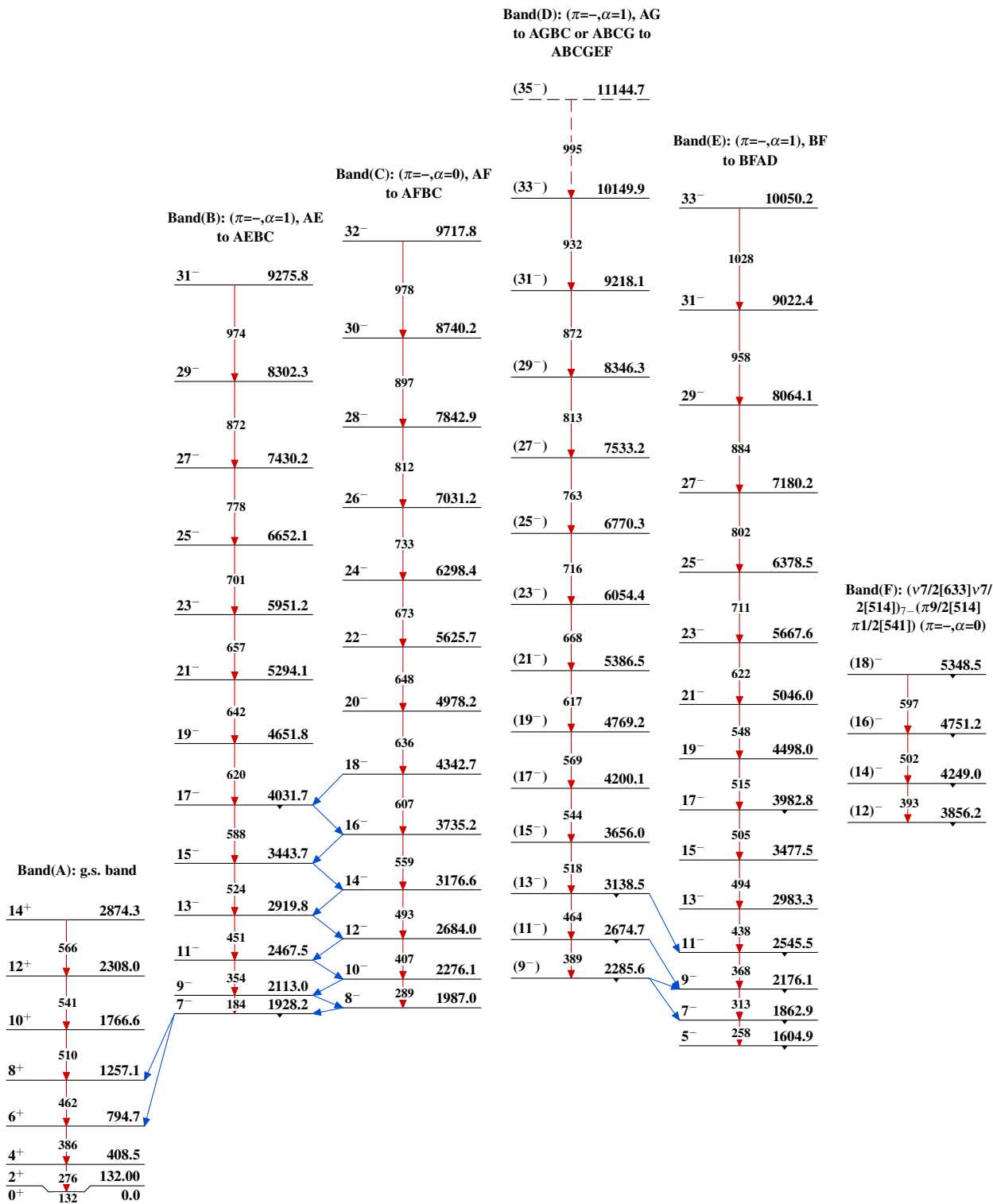
Intensities: Relative I_γ

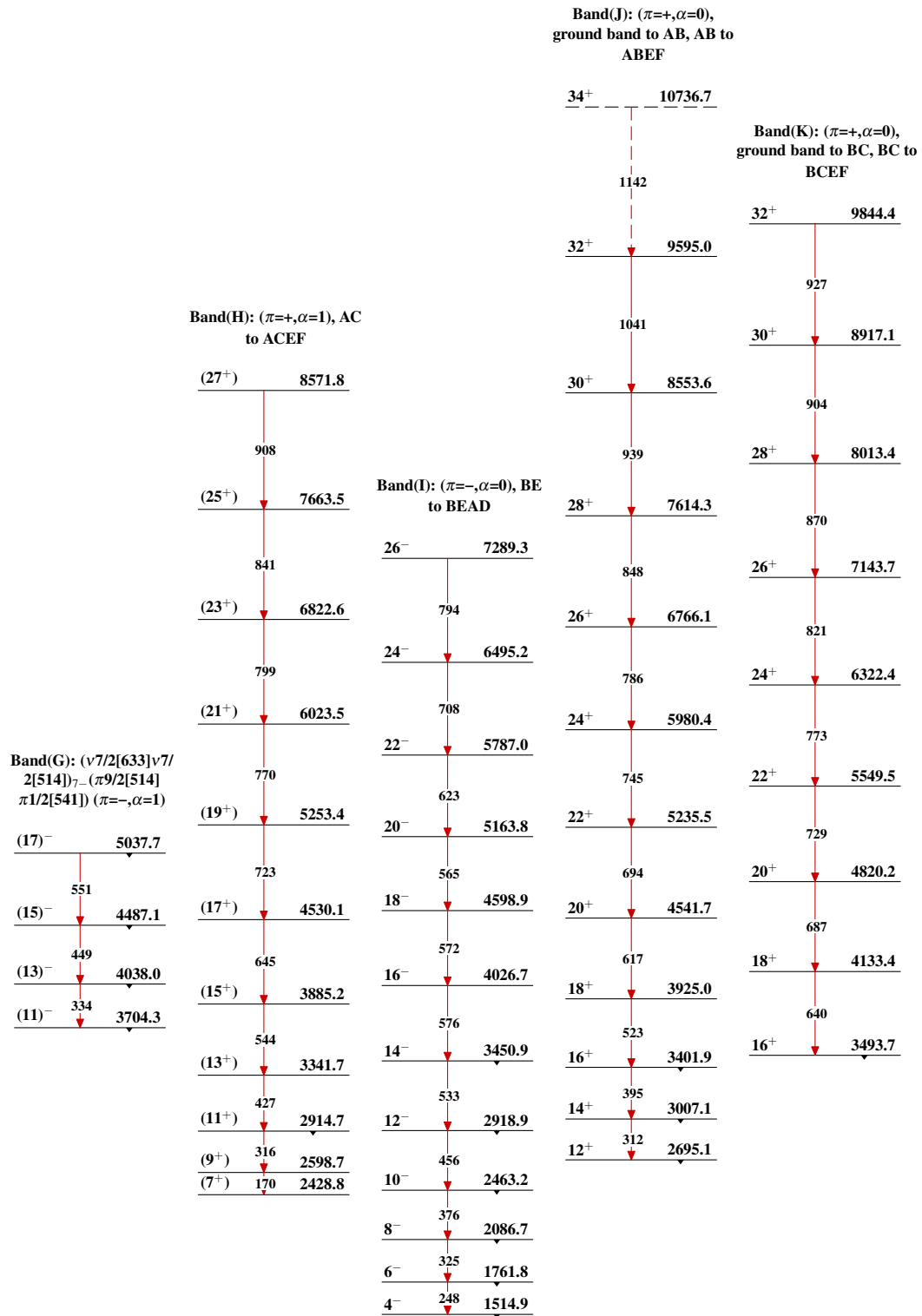
Legend

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



$^{150}\text{Nd}(^{36}\text{S},6n\gamma), ^{150}\text{Nd}(^{34}\text{S},4n\gamma)$ **1999Li03,1990Ka11**



$^{150}\text{Nd}(^{36}\text{S},6n\gamma), ^{150}\text{Nd}(^{34}\text{S},4n\gamma)$ 1999Li03,1990Ka11 (continued) $^{180}_{76}\text{Os}_{104}$