(HI,xnγ) 1987Be57,1987Pi05,1995De40

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh, Alexander A. Rodionov And Yuri L. Khazov	NDS 109,517 (2008)	22-Jan-2008

Normal deformed states:

1974Gi01: ^{122}Te(^{16}O,3nγ) E=60-90 MeV. Measured Eγ, Iγ, $\gamma\gamma$, $\gamma(\theta)$. A total of 53 γ rays reported but only nine placed among five excited states at 199, 561, 793, 1270, and 1521 keV.

1987Pi05: ^{112}Cd(^{27}Al,p3nγ) E=140 MeV and ^{116}Sn(^{24}Mg,2p3nγ) E=144 MeV. Measured Eγ, Iγ, $\gamma\gamma$, $\gamma(\theta)$. Detailed level scheme reported.

1987Be57: ^{100}Mo(^{40}Ar,5nγ) E=173-177 MeV. Measured γ, $\gamma\gamma$, $\gamma\gamma(\theta)$.

1987Bi13: ^{76}Ge(^{62}Ni,3nγ) E=235 MeV and ^{76}Ge(^{64}Ni,5nγ) E=235 MeV. Measured $T_{1/2}$(level) by RDDS and g factor by IMPAD method.

1999Kl11: ^{110}Pd(^{28}Si,3nγ) E=125 MeV. Measured lifetimes by recoil- distance Doppler-shift (RDDS) method.

2003Zh25: ^{110}Pd(^{30}Si,5nγ) E=133 MeV. Measured Eγ, Iγ, $\gamma\gamma$, $\gamma\gamma(\theta)$(DCO). Excitation functions measured at E=128-143 MeV using three Compton-suppressed HPGe detectors. The $\gamma\gamma$ coin data were collected using gammasphere array of 103 Compton-suppressed HPGe detectors. Deduced chiral pair of rotational bands.

2007Mu14: ^{100}Mo(^{40}Ar,5nγ) E=175 MeV beam delivered by ATLAS accelerator at Argonne. Enriched target. Measured Eγ, deduced level lifetimes by Doppler-shift attenuation method (DSAM), GAMMASPHERE array. Deduced B(M1) and B(E2) values. Interpretation of data in terms of chirality. Branching ratio data received from authors of 2007Mu14 as e-mail replies of Nov 23, 28 and Dec 19, 2007 (2007MuZY).

Superdeformed states:

1987Be57: ^{100}Mo(^{40}Ar,5nγ) E=173-177 MeV. Measured γ, $\gamma\gamma$, $\gamma\gamma(\theta)$. Deduced SD band.

1993Pa02, 1987Wa18: ^{104}Ru(^{34}S,3nγ) E=155 MeV. Measured γ, $\gamma\gamma$. Deduced SD band.

1993Wi09 (also 1990Di01): ^{100}Mo(^{40}Ar,5nγ) E=175 MeV. Measured $T_{1/2}$ by RDDM for SD states.

1993Mu09: ^{122}Te(^{16}O,3nγ) E=83 MeV. Measured $\gamma\gamma$ for SD band.

1995De40 (also 1995De33): ^{100}Mo(^{40}Ar,5nγ) E=182 MeV and 176 MeV. Measured Eγ, Iγ, $\gamma\gamma\gamma$, $\gamma\gamma(\theta)$ using Gammasphere array (24 Ge detectors for E=182 MeV experiment and 36 Ge detectors for E=176 MeV experiment).

1997Ni04, 1997Fl03: ^{64}Ni(^{74}Ge,3nγ) E=239 MeV and ^{112}Cd(^{26}Mg,3nγ) E=94 MeV. Measured $\gamma\gamma$ with 8π detector array (20 Ge detectors and 71 BGO inner array detectors). Deduced SD band population as a function of the spin of the SD band member. Also measured high-energy γ rays emitted in the decay of compound nuclei, deduced structure effects in the population of SD bands.

1998Ae01, 1997Ko37: ^{124}Te(^{16}O,5nγ) E=111 MeV. Measured $\gamma\gamma$ and (ce)γ coin for transitions in SD band using three mini-orange-filter detectors and four Euroball Ge cluster detectors. No evidence was found for E0 transitions deexciting the SD band.

1998Pe01: ^{110}Pd(^{28}Si,3nγ) E=132 MeV. Measured lifetimes by Doppler-shift attenuation method using GASP array of 40 Ge detectors and 80 BGO inner ball detectors. Deduced quadrupole moments.

Additional information 1.

^{135}Nd Levels

E(level)†	J$^{\pi}$‡	$T_{1/2}$@	Comments
0.0[b]	9/2$^{(-)}$		
198.73[c] *13*	(11/2$^-$)	39 ps *5*	g=−0.08 *5* (1987Bi13) $T_{1/2}$: from RDDS. Average of 42 ps 5 (1999Kl11) and 35 ps 5 (1987Bi13).
560.51[b] *14*	(13/2$^-$)	5.4 ps *4*	$T_{1/2}$: from RDDS (1999Kl11). Other: 4.2 ps *14* (1987Bi13) estimated from δ(199γ) and relative feeder intensities from 560 and 793 levels in the analysis of RDDS data for 199 level.
565.0? *3*			
663.7? *7*			
793.06[c] *18*	(15/2$^-$)	3.20 ps *17*	$T_{1/2}$: from RDDS (1999Kl11). Other:4.2 ps *14* (1987Bi13) estimated from δ(199γ) and relative feeder intensities from 560 and 793 levels in the analysis of RDDS data for 199 level.
1109.7? *5*			

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(HI,xnγ) 1987Be57,1987Pi05,1995De40 (continued)

^{135}Nd Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$[@]	Comments
1176.9 *3*			Population seems uncertain here since other two strong γ rays at 463.8 and 1176.7 seen in ^{135}Pm ε decay are not reported here.
1181.8? *7*			
1214.6? *6*			
1269.67[b] *21*	(17/2$^-$)		
1463.8? *5*			
1469.5? *5*			
1520.2[c] *3*	(19/2$^-$)		
1777.0[#] *7*	(15/2$^+$)		
1954.3[f] *4*	(17/2$^+$)		
2105.5[b] *4*	(21/2$^-$)		
2122.8? *6*			
2158.1[f] *4*	(19/2$^+$)		
2209.7?[#] *11*	(17/2)		
2259.4[#] *7*	(17/2)		
2350.4[f] *4*	(21/2$^+$)		
2375.8[c] *4*	(23/2$^-$)		
2533.4[#] *8*	(23/2)		
2557.9[f] *4*	(23/2$^+$)		
2703.7[#] *5*	(21/2$^+$)		
2775.7[#] *6*	(21/2$^+$)		
2795.5[#] *6*	(21/2$^+$)		
2801.0[f] *4*	(25/2$^+$)		
2820.1[e] *5*	(23/2$^-$)		E(level): ordering of 121-444 cascade is from 1987Be57 and 2003Zh25. 1987Pi05 show reverse ordering, defining a level at 2496 instead of 2820.
2940.6[d] *4*	(25/2$^-$)		
3102.1[f] *5*	(27/2$^+$)		
3110.6[e] *5*	(27/2$^-$)		
3324.5[h] *4*	(25/2$^+$)	1.7 ps *6*	J$^{\pi}$: from 1995De40 and 1987Be57. Q(intrinsic)=1.4 *4* (1993Wi09). Q deduced from T$_{1/2}$ of 620γ which connects the SD band to normal states. Transitions to normal states are from 1995De40 (see also 1987Be57 and 1993Wi09).
3340.6[#] *5*	(25/2$^+$)		
3346.2? *5*			
3358.5[d] *5*	(29/2$^-$)	0.693[&] ps *35*	
3471.2[f] *5*	(29/2$^+$)		
3607.6[ag] *9*	(27/2$^-$)		
3649.8[e] *5*	(31/2$^-$)	0.52[&] ps *6*	
3780.6[ag] *8*	(29/2$^-$)		
3861.1[f] *5*	(31/2$^+$)		
3869.8[h] *5*	(29/2$^+$)	1.0 ps *4*	Q(intrinsic)=5.2 *+20−10* (1993Wi09).
4006.7[ag] *7*	(31/2$^-$)	1.012 ps *14*	
4008.0[d] *5*	(33/2$^-$)	0.305[&] ps *14*	
4288.9[ag] *7*	(33/2$^-$)	0.60[&] ps *4*	
4347.1[f] *8*	(33/2$^+$)		
4414.4[e] *6*	(35/2$^-$)	0.194[&] ps *14*	
4417.1 *6*			

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(HI,xnγ) 1987Be57,1987Pi05,1995De40 (continued)

^{135}Nd Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[@]	Comments
4471.7[h] *5*	(33/2+)	0.44 ps *+26−8*	Q(intrinsic)=6.8 *+8−14* (1993Wi09).
4598.6[ag] *8*	(35/2−)	0.444[&] ps *35*	
4772.1[f] *10*	(35/2+)		
4852.6[d] *6*	(37/2−)	0.159[&] ps *14*	
4970.6[ag] *13*	(37/2−)	0.333[&] ps *21*	
5147.6[h] *6*	(37/2+)	0.21 ps *+14−6*	Q(intrinsic)=7.2 *+12−15* (1993Wi09).
5286.1?[f] *11*	(37/2+)		
5315.5[e] *9*	(39/2−)	0.152[&] ps *14*	
5410.6[ag] *16*	(39/2−)	0.166[&] ps *28*	
5734.1[f] *14*	(39/2+)		
5787.5[d] *10*	(41/2−)	0.125[&] ps *14*	
5895.9[h] *6*	(41/2+)	<0.15 ps	Q(intrinsic)>6.7 (1993Wi09).
5922.6[ag] *19*	(41/2−)		
6281.5[e] *11*	(43/2−)	0.111[&] ps *14*	
6712.6[h] *7*	(45/2+)		
6799.5[ad] *12*	(45/2−)		E(level): 6813 level (532γ and 1026γ from this level) in 1987Be57 is probably the same as 6799 level from 2003Zh25.
7328.5?[e] *15*	(47/2−)		Tentative 515γ from 1987Be57 from this level is omitted here.
7594.0[h] *7*	(49/2+)		
8539.5[h] *8*	(53/2+)		
9549.7[h] *8*	(57/2+)		
10626.5[h] *9*	(61/2+)		
11771.6[h] *9*	(65/2+)		
12986.3[h] *9*	(69/2+)		
14273.7[h] *10*	(73/2+)		
15635.7[h] *14*	(77/2+)		
17072.9[h] *15*	(81/2+)		
18592.4[h] *15*	(85/2+)		
20197.4[h] *17*	(89/2+)		
21889.4[h] *20*	(93/2+)		

[†] From least-squares fit to Eγ′s.
[‡] From γ(θ) and/or γγ(θ) (DCO) and band associations.
[#] Level proposed by 1995De40.
[@] From Doppler-shift recoil method (1993Wi09), unless otherwise stated.
[&] From DSAM, thick target data (2007Mu14).
[a] Level from 2003Zh25.
[b] Band(A): $\nu h_{11/2}$ 9/2[514], α=+1/2 (1987Pi05). Backbend at J=25/2 due to alignment of pair of $h_{11/2}$ protons in 3/2[541] orbit (AB crossing) (1987Pi05). This band is extended to 45/2− by 1987Be57. Q(transition)<3.0 (2001Ri20).
[c] Band(a): $\nu h_{11/2}$ 9/2[514], α=−1/2 (1987Pi05). Backbend at J=27/2 due to alignment of pair of $h_{11/2}$ protons in 3/2[541] orbit (AB crossing) (1987Pi05). This band is extended to 47/2− by 1987Be57. Q(transition)<3.0 (2001Ri20).
[d] Band(B): $\pi h^2_{11/2}\nu h^{-1}_{11/2}$, α=+1/2. Forms a chiral pair with band based on 3607, 27/2−. Q(transition)=3.0 *3* (2001Ri20).
[e] Band(b): $\pi h^2_{11/2}\nu h^{-1}_{11/2}$, α=−1/2. Forms a chiral pair with band based on 3607, 27/2−. Q(transition)=3.0 *3* (2001Ri20).
[f] Band(C): ΔJ=1 band (1987Pi05,1987Be57). Possible configuration=$\nu h_{11/2}\otimes\pi h_{11/2}\otimes\pi g_{7/2}$ (?) (1987Pi05).

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(HI,xnγ) 1987Be57,1987Pi05,1995De40 (continued)

^{135}Nd Levels (continued)

[g] Band(D): Chiral-partner of $\pi h^2_{11/2} \nu h^{-1}_{11/2}$.

[h] Band(E): SD band (1987Be57,1987Wa18,1995De40,1997Ko37). Q(transition)=7.3 *10* (1998Pe01), 7.4 *10* (1990Di01); average value over the entire spin range in the SD band; 1999Ko28 measure Q(transition)=5.1 *2* and 5.7 *2*, the first for low-spin gating on stopped transitions, the second for Doppler-shifted high-spin transitions. The strongly deformed shape is mainly caused by the occupation of a $\nu i_{13/2}$ intruder orbital (1997Ko37,1998Pe01). Percent population=10 (1987Be57) in ^{100}Mo(^{40}Ar,5nγ); 9 (1987Wa18) in ^{104}Ru(^{34}S,3nγ); 7 *2* (1993Mu09).

$\gamma(^{135}Nd)$

DCO′s correspond to gates on ΔJ=2, quadrupole transitions.
A_4 is assumed as 0 when only A_2 is quoted. In these cases A_2, A_4 fit resulted in A_4 being too large to be realistic.

Intensities from (^{16}O,3nγ) E=66.5 MeV (1974Gi01)

Eγ	Iγ	Eγ	Iγ
108.7 *2*	b 4.3 *8*	501.8 *5*	b 9.6 *10*
120.4 *2*	2.0 *6*	511.8 *5*	($\gamma^{\pm}$)
128.2 *2*	b 7.1 *10*	518.3 *5*	12.0 *12*
137.9 *2*	b 4.3 *8*	525.7 *6*	b 4.3 *8*
158.7 *2*	b 4.3 *8*	533.5 *6*	b 7.4 *10*
169.8 *2*	9.6 *11*	552.1 *6*	b 9.8 *10*
176.7 *2*+	b	554.1 *6*	b 6.4 *10*
178.2 *2*	b 7.0 *10*	560.3 *6*	a 18 *2*
192.0 *2*	13.2 *13*	585.0 *6*	8.8 *12*
198.5 *2*	a 100 *10*	594.1 *6*	a 33 *4*
207.4 *2*	18.4 *19*	646.9 *7*	4.0 *8*
232.2 *3*	a 12.7 *13*	670.7 *8*	2.8 *6*
234.9 *3*	b 2.9 *6*	709.6 *7*	a 12.1 *12*
243.1 *3*	5.1 *10*	727.6 *7*	a 19.6 *20*
247.7 *3*	6.7 *10*	747.8 *8*	b 4.2 *8*
250.6 *3*	a 1.8 *5*	752.6 *10*	b 2.8 *6*
256.2 *4*	b 2.9 *6*	814.8 *9*	b 4.6 *9*
282.0 *3*	b 6.4 *10*	835.7 *10*	7.6 *10*
284.9 *4*	b 2.9 *6*	855.7 *10*	6.9 *10*
290.9 *4*	3.0 *6*	886.0 *9*+	b
300.9 *4*	4.4 *9*	888.4 *9*	14.5 *15*
325.3 *4*	b 9.5 *10*	1015.5 *11*	10.0 *10*
362.2 *4*	a 40 *4*	1060.0 *11*	b 5.7 *9*
410.3 *5*	7.8 *10*	1161.0 *12*	11.2 *12*
422.8 *5*	b 3.1 *6*		
440.4 *5*	b 38 *4*		
476.0 *5*+			
476.5 *5*	a 23 *3*		
482.6 *5*	b 6.8 *10*		

a: γ-ray placed in level scheme
b: γ-ray not reported by 1987Pi05

$^{135}_{60}Nd_{75}$-5

(HI,xnγ) 1987Be57,1987Pi05,1995De40 (continued)

γ(^{135}Nd) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ[@]	α[i]	Comments
120.76[&k] *20*	4.1 *1*	2940.6	(25/2$^-$)	2820.1	(23/2$^-$)				A_2=−0.29 *6*, A_4=−0.16 *9* (1987Pi05).
170.05[&a] *20*	20.6[&] *13*	3110.6	(27/2$^-$)	2940.6	(25/2$^-$)	D(+Q)	+0.01 *4*		A_2=−0.212 *13*, A_4=−0.018 *23* (1987Pi05).
173[h]		3780.6	(29/2$^-$)	3607.6	(27/2$^-$)	(M1+E2)		0.311 *10*	α(K)=0.243 *15*; α(L)=0.054 *18*; α(M)=0.012 *5*; α(N+..)=0.0030 *10* α(N)=0.0026 *9*; α(O)=0.00036 *11*; α(P)=1.4×10^{-5} *3* Mult.: from estimated α(exp)=0.25 *10*.
178[c] *1*		1954.3	(17/2$^+$)	1777.0	(15/2$^+$)				
192.24 *20*	16.7 *4*	2350.4	(21/2$^+$)	2158.1	(19/2$^+$)	D(+Q)	−0.03 *3*		A_2=−0.299 *23*, A_4=−0.06 *4* (1987Pi05).
198.82[a] *15*	100.0 *7*	198.73	(11/2$^-$)	0.0	9/2$^{(-)}$	(M1+E2)	−0.22 *7*		I_γ: includes ≈6% intensity from an unresolved line from ^{136}Pm. A_2=−0.476 *16*, A_4=−0.010 *27* (1987Pi05). Additional information 2.
203.85[&] *25*	7.6[&] *9*	2158.1	(19/2$^+$)	1954.3	(17/2$^+$)				
207.45[&] *25*	14.0[&] *20*	2557.9	(23/2$^+$)	2350.4	(21/2$^+$)				
226.0[e]		4006.7	(31/2$^-$)	3780.6	(29/2$^-$)	(M1+E2)		0.138 *8*	α(K)=0.112 *13*; α(L)=0.021 *4*; α(M)=0.0045 *10*; α(N+..)=0.00115 *22* α(N)=0.00100 *20*; α(O)=0.000143 *21*; α(P)=6.6×10^{-6} *15* Mult.: estimated α(exp)=0.17 *3*. B(M1)=2.7 *3* (2007Mu14), 2.6 *2* (2007MuZY).
232.61[a] *20*	12.9[&] *9*	793.06	(15/2$^-$)	560.51	(13/2$^-$)	(M1+E2)	−0.13 *7*	0.1345 *20*	α(K)=0.1145 *17*; α(L)=0.0158 *3*; α(M)=0.00336 *6*; α(N+..)=0.000873 *15* α(N)=0.000752 *13*; α(O)=0.0001141 *18*; α(P)=7.35×10^{-6} *12* A_2=−0.41 *6*, A_4=−0.09 *9* (1987Pi05). Additional information 4.
235.6[k] *3*	6.7 *3*	3346.2?		3110.6	(27/2$^-$)				A_2=−0.49 *9*, A_4=+0.04 *13* (1987Pi05).
243.20[a] *20*	12.7[&] *21*	2801.0	(25/2$^+$)	2557.9	(23/2$^+$)	D+Q	−0.06 *4*		A_2=−0.345 *21*, A_4=−0.04 *3* (1987Pi05).
247.74[&a] *25*	29[&] *4*	3358.5	(29/2$^-$)	3110.6	(27/2$^-$)	(M1+E2)	−0.08 *4*		B(M1)↓=3.2 *2* (2007Mu14) A_2=−0.366 *17*, A_4=−0.04 *3* (1987Pi05).
250.5[&a] *5*	4.3[&] *5*	1520.2	(19/2$^-$)	1269.67	(17/2$^-$)	D+Q	−0.19 *8*		A_2=−0.54 *5*, A_4=+0.06 *7* (1987Pi05).
270.5[&] *5*	≈1	2375.8	(23/2$^-$)	2105.5	(21/2$^-$)				
282.1[e]		4288.9	(33/2$^-$)	4006.7	(31/2$^-$)	[M1]			B(M1)=2.1 *2* (2007Mu14).
291.34 *20*	23.8 *3*	3649.8	(31/2$^-$)	3358.5	(29/2$^-$)	(M1+E2)	−0.12 *4*		B(M1)↓=2.5 *3* (2007Mu14) A_2=−0.437 *21*, A_4=+0.04 *3* (1987Pi05).
301.13[&] *20*	6.8[&] *19*	3102.1	(27/2$^+$)	2801.0	(25/2$^+$)	(D)			A_2=−0.27 *15* (1974Gi01).
309.0[e]		4598.6	(35/2$^-$)	4288.9	(33/2$^-$)	[M1]			B(M1)=2.2 *2* (2007Mu14), 2.07 *19* (2007MuZY).

$^{135}_{60}Nd_{75}$-6

(HI,xnγ) 1987Be57,1987Pi05,1995De40 (continued)

γ(^{135}Nd) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ[@]	α[i]	Comments
358.22[&] *25*	13.1[&] *18*	4008.0	(33/2$^-$)	3649.8	(31/2$^-$)	(M1(+E2))	−0.02[b] *13*		B(M1)↓=2.2 *2* (2007Mu14) A_2=−0.303 *21* (1987Pi05).
361.88 *15*	30.9 *4*	560.51	(13/2$^-$)	198.73	(11/2$^-$)	(M1+E2)	−0.9 *6*	0.036 *5*	α(K)=0.030 *5*; α(L)=0.00466 *15*; α(M)=0.000998 *23*; α(N+..)=0.000257 *8* α(N)=0.000222 *7*; α(O)=3.29×10^{-5} *17*; α(P)=1.9×10^{-6} *4* A_2=−0.57 *5*, A_4=−0.03 *8* (1987Pi05). Additional information 3.
366.22[&k] *25*	3.3[&] *8*	565.0?		198.73	(11/2$^-$)				
369.12[&] *25*	12.7 *2*	3471.2	(29/2$^+$)	3102.1	(27/2$^+$)	D+Q	−0.16 *6*		A_2=−0.50 *5*, A_4=−0.06 *7* (1987Pi05).
371.2[e]		4970.6	(37/2$^-$)	4598.6	(35/2$^-$)	[M1]			B(M1)=1.7 *2* (2007Mu14), 1.50 *13* (2007MuZY).
381[c] *1*		2158.1	(19/2$^+$)	1777.0	(15/2$^+$)				
389.93 *25*	3.2[&] *7*	3861.1	(31/2$^+$)	3471.2	(29/2$^+$)	D+Q	+0.11 *3*		A_2=−0.04 *3* (1987Pi05).
396[c] *1*		2350.4	(21/2$^+$)	1954.3	(17/2$^+$)				
399.0[e]		4006.7	(31/2$^-$)	3607.6	(27/2$^-$)	[E2]			B(E2)=0.28 *3* (2007Mu14), 0.27 *5* (2007MuZY). Iγ(399.0)/Iγ(226.0)=5 *1*/90 *5* (2007MuZY).
400[c] *1*		2557.9	(23/2$^+$)	2158.1	(19/2$^+$)				
406.5[&] *5*	6.8[&] *13*	4414.4	(35/2$^-$)	4008.0	(33/2$^-$)	(M1+E2)	−0.25[b] *15*		B(M1)↓=2.4 *3* (2007Mu14) A_2=−0.59 *6*, A_4=−0.05 *8* (1987Pi05).
408.5[&] *5*	5.1[&] *16*	4417.1		4008.0	(33/2$^-$)				
418.0[&] *5*	6.0[&] *12*	3358.5	(29/2$^-$)	2940.6	(25/2$^-$)	[E2]			B(E2)↓=0.32 *2* (2007Mu14) Iγ(418.0)/Iγ(247.3)=5 *1*/95 *5* (2007MuZY).
425[d]		4772.1	(35/2$^+$)	4347.1	(33/2$^+$)				
438.6[&a] *5*	4.2[&] *14*	4852.6	(37/2$^-$)	4414.4	(35/2$^-$)	(M1+E2)	−0.26[b] *15*		B(M1)↓=1.7 *3* (2007Mu14) A_2=−0.60 *5* (1987Pi05).
440.0[e]		5410.6	(39/2$^-$)	4970.6	(37/2$^-$)	[M1]			B(M1)↓=1.9 *3* (2007Mu14)
444.2[k] *4*	3.3 *2*	2820.1	(23/2$^-$)	2375.8	(23/2$^-$)				A_2=+0.68 *13*, A_4=+0.01 *17* (1987Pi05).
450[c] *1*		2801.0	(25/2$^+$)	2350.4	(21/2$^+$)				
462.4[e]		5315.5	(39/2$^-$)	4852.6	(37/2$^-$)	[M1]			B(M1)↓=2.1 *3* (2007Mu14) Eγ=478.0 *5*, Iγ=1.7 *13* (1987Pi05).
465.0[&k] *6*	4.1[&] *11*	663.7?		198.73	(11/2$^-$)				
471.4[e]		5787.5	(41/2$^-$)	5315.5	(39/2$^-$)	[M1]			B(M1)↓=2.1 *3* (2007Mu14)
476.70[&a] *25*	13.9[&] *14*	1269.67	(17/2$^-$)	793.06	(15/2$^-$)	D(+Q)	−0.09 *11*		A_2=−0.383 *23* (1987Pi05). Additional information 6.
483[ck] *1*		2259.4	(17/2)	1777.0	(15/2$^+$)				
486[d]		4347.1	(33/2$^+$)	3861.1	(31/2$^+$)				
493.9[e]		6281.5	(43/2$^-$)	5787.5	(41/2$^-$)	[M1]			B(M1)↓=2.0 *3* (2007Mu14)

$^{135}_{60}Nd_{75}$-7

(HI,xnγ) 1987Be57,1987Pi05,1995De40 (continued)

γ(^{135}Nd) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ[@]	α[i]	Comments
508.0[e]		4288.9	(33/2⁻)	3780.6	(29/2⁻)	[E2]			B(E2)=0.28 *3* (2007Mu14), 0.25 *4* (2007MuZY). Iγ(508.0)/Iγ(282.1)=8.7 *14*/79 *4* (2007MuZY).
512[h]		5922.6	(41/2⁻)	5410.6	(39/2⁻)				
514[dk]		5286.1?	(37/2⁺)	4772.1	(35/2⁺)				
515[ck] *1*		2775.7	(21/2⁺)	2259.4	(17/2)				
518[h]		6799.5	(45/2⁻)	6281.5	(43/2⁻)				
518.04[k] *20*	6.7[&] *9*	1181.8?		663.7?					
523.5[c] *4*	0.06[c] *2*	3324.5	(25/2⁺)	2801.0	(25/2⁺)				α(K)exp=0.008 *6* (1998Ae01) α(K)exp: from intensity branching ratios (1998Ae01). no evidence for E0 admixture was found within the sensitivity of the spectrometer.
529.0[jc] *4*	0.10[jc] *2*	3324.5	(25/2⁺)	2795.5	(21/2⁺)	(E2)		0.01013	α(K)=0.00841 *12*; α(L)=0.001350 *20*; α(M)=0.000290 *5*; α(N+..)=7.43×10^{-5} *11* α(N)=6.43×10^{-5} *10*; α(O)=9.42×10^{-6} *14*; α(P)=4.96×10^{-7} *7* For 529 doublet: DCO(28°/90°)=1.2 *3* (1995De40).
529.0[jc] *4*	0.10[jc] *2*	3869.8	(29/2⁺)	3340.6	(25/2⁺)	(E2)		0.01013	α(K)=0.00841 *12*; α(L)=0.001350 *20*; α(M)=0.000290 *5*; α(N+..)=7.43×10^{-5} *11* α(N)=6.43×10^{-5} *10*; α(O)=9.42×10^{-6} *14*; α(P)=4.96×10^{-7} *7* Connecting γ to normal-deformed state from 1995De40, 1993Wi09 and 1987Be57.
539.5[&] *3*	3.0[&] *7*	3649.8	(31/2⁻)	3110.6	(27/2⁻)	[E2]			B(E2)↓=0.32 *2* (2007Mu14) Iγ(540.0)/Iγ(290.6)=14 *4*/86 *4* (2007MuZY).
544[d]		3102.1	(27/2⁺)	2557.9	(23/2⁺)				
545.40[c] *25*	0.77[c] *8*	3869.8	(29/2⁺)	3324.5	(25/2⁺)	E2		0.00935	α(K)exp=0.0071 *13* (1998Ae01) α(K)=0.00778 *11*; α(L)=0.001235 *18*; α(M)=0.000265 *4*; α(N+..)=6.79×10^{-5} *10* α(N)=5.89×10^{-5} *9*; α(O)=8.63×10^{-6} *13*; α(P)=4.59×10^{-7} *7* DCO(28°/90°)=1.51 *15* (1995De40).
548.9[c] *4*	0.14[c] *3*	3324.5	(25/2⁺)	2775.7	(21/2⁺)	(E2)[f]		0.00919	α(K)=0.00765 *11*; α(L)=0.001213 *18*; α(M)=0.000260 *4*; α(N+..)=6.67×10^{-5} *10* α(N)=5.78×10^{-5} *9*; α(O)=8.48×10^{-6} *12*; α(P)=4.52×10^{-7} *7* DCO(28°/90°)=1.9 *5* (1995De40).
556.0[e]		4970.6	(37/2⁻)	4414.4	(35/2⁻)				Iγ(556.0)/Iγ(371.2)=3.4 *6*/66 *4* (2007MuZY).
560.35 *20*	18.9 *3*	560.51	(13/2⁻)	0.0	9/2$^{(-)}$	(E2)		0.00871	α(K)=0.00726 *11*; α(L)=0.001143 *16*; α(M)=0.000245 *4*; α(N+..)=6.29×10^{-5} *9* α(N)=5.44×10^{-5} *8*; α(O)=8.00×10^{-6} *12*; α(P)=4.29×10^{-7} *6* A_2=+0.247 *30*, A_4=+0.00 *5* (1987Pi05).
564.79[a] *20*	14.3[&] *22*	2940.6	(25/2⁻)	2375.8	(23/2⁻)	D(+Q)	−0.02 *7*		A_2=−0.272 *23* (1987Pi05).

$^{135}_{60}Nd_{75}$-8

(HI,xnγ) 1987Be57,1987Pi05,1995De40 (continued)

γ(^{135}Nd) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ[@]	α[i]	Comments
565[ck] *1*		2775.7	(21/2$^+$)	2209.7?	(17/2)				
585.38[&a] *25*	5.2[&] *12*	2105.5	(21/2$^-$)	1520.2	(19/2$^-$)	D(+Q)	0.00 *6*		A_2=−0.23 *6*, A_4=−0.01 *8* (1987Pi05). Additional information 9.
590.0[e]		4598.6	(35/2$^-$)	4008.0	(33/2$^-$)				Iγ(590.0)/Iγ(309.0)=1.5 *3*/73 *4* (2007MuZY).
591.0[e]		4598.6	(35/2$^-$)	4006.7	(31/2$^-$)	[E2]			B(E2)=0.28 *4* (2007Mu14), 0.31 *5* (2007MuZY). Iγ(591.0)/Iγ(309.0)=18 *3*/73 *4* (2007MuZY).
594.31 *20*	51.5 *11*	793.06	(15/2$^-$)	198.73	(11/2$^-$)	(E2)[f]		0.00749	α(K)=0.00626 *9*; α(L)=0.000968 *14*; α(M)=0.000207 *3*; α(N+..)=5.32×10^{-5} *8* α(N)=4.61×10^{-5} *7*; α(O)=6.79×10^{-6} *10*; α(P)=3.72×10^{-7} *6* E_γ: 594.0 *4* (1995De40). A_2=+0.320 *15*, A_4=−0.07 *3* (1987Pi05). Additional information 5.
601.90[c] *25*	1.05[c] *10*	4471.7	(33/2$^+$)	3869.8	(29/2$^+$)	(E2)[f]		0.00726	α(K)=0.00607 *9*; α(L)=0.000935 *14*; α(M)=0.000200 *3*; α(N+..)=5.14×10^{-5} *8* α(N)=4.45×10^{-5} *7*; α(O)=6.56×10^{-6} *10*; α(P)=3.61×10^{-7} *5* DCO(28°/90°)=1.49 *11* (1995De40).
602.6[&k] *5*	6.1[&] *13*	2122.8?		1520.2	(19/2$^-$)				
618[c] *1*	0.10[c] *2*	2775.7	(21/2$^+$)	2158.1	(19/2$^+$)	(D)[g]			DCO(28°/90°)=0.9 *4* (1995De40).
621.0[c] *4*	0.13[c] *3*	3324.5	(25/2$^+$)	2703.7	(21/2$^+$)	(E2)		0.00671	α(K)=0.00562 *8*; α(L)=0.000858 *13*; α(M)=0.000184 *3*; α(N+..)=4.72×10^{-5} *7* α(N)=4.08×10^{-5} *6*; α(O)=6.02×10^{-6} *9*; α(P)=3.35×10^{-7} *5* DCO(28°/90°)=2.0 *9* (1995De40).
639.0[e]		4288.9	(33/2$^-$)	3649.8	(31/2$^-$)				Iγ(639.0)/Iγ(282.1)=5.8 *8*/79 *4* (2007MuZY).
648.0[e]		4006.7	(31/2$^-$)	3358.5	(29/2$^-$)	(M1+E2)			Iγ(648.0)/Iγ(226.0)=3.0 *3*/90 *5* (2007MuZY). A_2=−0.65 *3*, DCO≈1.5.
649.2[&a] *3*	3.0[&] *11*	4008.0	(33/2$^-$)	3358.5	(29/2$^-$)	[E2]			B(E2)↓=0.32 *3* (2007Mu14) Iγ(649.0)/Iγ(357.8)=20 *2*/80 *4* (2007MuZY). A_2=+0.02 *7*, A_4=+0.04 *10* (1987Pi05).
667[h]		3607.6	(27/2$^-$)	2940.6	(25/2$^-$)				
669[d]		3471.2	(29/2$^+$)	2801.0	(25/2$^+$)				
670[h]		3780.6	(29/2$^-$)	3110.6	(27/2$^-$)	D+Q			A_2=−0.564 *22*, DCO≈1.5.
670.7[&k] *4*	6.2 *9*	1463.8?		793.06	(15/2$^-$)				A_2=−0.05 *5*, A_4=+0.03 *7* (1987Pi05).
675.90 *25*	0.80 *8*	5147.6	(37/2$^+$)	4471.7	(33/2$^+$)	E2[f]		0.00545	α(K)exp=0.0043 *8* (1998Ae01) α(K)=0.00458 *7*; α(L)=0.000683 *10*; α(M)=0.0001459 *21*; α(N+..)=3.75×10^{-5} *6* α(N)=3.25×10^{-5} *5*; α(O)=4.81×10^{-6} *7*; α(P)=2.74×10^{-7} *4*
676.4[&k] *4*	3.8[&] *12*	1469.5?		793.06	(15/2$^-$)				

$^{135}_{60}Nd_{75}$-9

(HI,xnγ) 1987Be57,1987Pi05,1995De40 (continued)

γ(^{135}Nd) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[i]	Comments
682.0[e]		4970.6	(37/2⁻)	4288.9	(33/2⁻)	[E2]		B(E2)=0.29 *4* (2007Mu14), 0.25 *5* (2007MuZY). Iγ(682.0)/Iγ(371.2)=22 *4*/66 *4* (2007MuZY).
709.10[a] *20*	18.5 *15*	1269.67	(17/2⁻)	560.51	(13/2⁻)	Q		E_γ: 708.8 *4* (1995De40). A_2=+0.387 *25*, A_4=−0.09 *4* (1987Pi05). Additional information 7.
715[dk]		2820.1	(23/2⁻)	2105.5	(21/2⁻)			
727.0[c] *4*	40.1 *5*	1520.2	(19/2⁻)	793.06	(15/2⁻)	Q		E_γ: 727.48 *15* (1987Pi05). A_2=+0.332 *24*, A_4=−0.10 *4* (1987Pi05). Additional information 8.
734.6[&a] *4*	3.4[&] *23*	3110.6	(27/2⁻)	2375.8	(23/2⁻)	(Q)		A_2=+0.45 *7*, A_4=−0.06 *9* (1987Pi05).
739[ck] *1*		2259.4	(17/2)	1520.2	(19/2⁻)			
748.30 *25*	0.75 *8*	5895.9	(41/2⁺)	5147.6	(37/2⁺)	E2[f]	0.00428	α(K)exp=0.0036 *7* (1998Ae01) α(K)=0.00361 *5*; α(L)=0.000525 *8*; α(M)=0.0001119 *16*; α(N+..)=2.88×10^{-5} *4* α(N)=2.49×10^{-5} *4*; α(O)=3.71×10^{-6} *6*; α(P)=2.17×10^{-7} *3*
759.0 *3*	4.8 *2*	3861.1	(31/2⁺)	3102.1	(27/2⁺)	(Q)		A_2=+0.37 *11*, A_4=+0.02 *15* (1987Pi05).
764.9[&a] *5*	3.1[&] *16*	4414.4	(35/2⁻)	3649.8	(31/2⁻)	[E2]		B(E2)↓=0.32 *3* (2007Mu14) Iγ(765.0)/Iγ(406.0)=30 *3*/70 *13* (2007MuZY). A_2=+0.07 *7*, A_4=+0.04 *10* (1987Pi05).
766.5[c] *4*	0.10[c] *2*	3324.5	(25/2⁺)	2557.9	(23/2⁺)	M1[g]	0.00639	α(K)exp=0.0075 *22* (1998Ae01) α(K)=0.00547 *8*; α(L)=0.000720 *11*; α(M)=0.0001520 *22*; α(N+..)=3.96×10^{-5} *6* α(N)=3.41×10^{-5} *5*; α(O)=5.20×10^{-6} *8*; α(P)=3.46×10^{-7} *5* Mult.: from α(K)exp=0.0071 *19* (1997Ko37) and DCO(28°/90°)=0.62 *13* (1995De40).
767.4 *3*	3.9 *2*	4417.1		3649.8	(31/2⁻)			A_2=−0.51 *13*, A_4=+0.05 *18* (1987Pi05).
807[ck] *1*		3340.6	(25/2⁺)	2533.4	(23/2)			
812.0[e]		5410.6	(39/2⁻)	4598.6	(35/2⁻)	[E2]		B(E2)=0.11 *3* (2007Mu14). Iγ(812.0)/Iγ(440.0)=12 *4*/88 *9* (2007MuZY).
816.70 *25*	0.65 *7*	6712.6	(45/2⁺)	5895.9	(41/2⁺)	E2[f]	0.00350	α(K)exp=0.0029 *6* (1998Ae01) α(K)=0.00296 *5*; α(L)=0.000423 *6*; α(M)=8.99×10^{-5} *13*; α(N+..)=2.32×10^{-5} *4* α(N)=2.00×10^{-5} *3*; α(O)=2.99×10^{-6} *5*; α(P)=1.78×10^{-7} *3*
830[d]		2350.4	(21/2⁺)	1520.2	(19/2⁻)			
835.2[&] *4*	18.6[&] *24*	2940.6	(25/2⁻)	2105.5	(21/2⁻)	(Q)		For 835.2γ+835.7γ: A_2=+0.251 *23*, A_4=+0.01 *4* (1987Pi05). Additional information 10.
836.0[c] *4*	13.6[&] *32*	2105.5	(21/2⁻)	1269.67	(17/2⁻)	(Q)		E_γ: 835.7 *5* (1987Pi05).

(HI,xnγ) 1987Be57,1987Pi05,1995De40 (continued)

γ(^{135}Nd) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[i]	Comments
844.2[&] *4*	3.4[&] *17*	4852.6	(37/2$^-$)	4008.0	(33/2$^-$)	[E2]		B(M1)↓=0.32 *4* (2007Mu14) Iγ(844.0)/Iγ(437.7)=40 *3*/60 *5* (2007MuZY).
855.2[c] *4*	19.7 *2*	2375.8	(23/2$^-$)	1520.2	(19/2$^-$)	(Q)		E_γ: 855.4 *3* (1987Pi05). A_2=+0.31 *3*, A_4=−0.00 *4* (1987Pi05).
876[d]		4347.1	(33/2$^+$)	3471.2	(29/2$^+$)			
881.40 *25*	0.66 *7*	7594.0	(49/2$^+$)	6712.6	(45/2$^+$)	E2[f]	0.00295	α(K)exp=0.0021 *5* (1998Ae01) α(K)=0.00250 *4*; α(L)=0.000352 *5*; α(M)=7.47×10^{-5} *11*; α(N+..)=1.93×10^{-5} *3* α(N)=1.665×10^{-5} *24*; α(O)=2.50×10^{-6} *4*; α(P)=1.511×10^{-7} *22*
888.4[&] *3*	8.0[&] *10*	2158.1	(19/2$^+$)	1269.67	(17/2$^-$)			
896.0[e]		4006.7	(31/2$^-$)	3110.6	(27/2$^-$)	(E2)		Iγ(forward angles)/Iγ(90°)=1.7 *3*. Iγ(896.0)/Iγ(226.0)=2.0 *3*/90 *5* (2007MuZY).
901.0[e]		5315.5	(39/2$^-$)	4414.4	(35/2$^-$)	[E2]		B(E2)↓=0.13 *3* (2007Mu14) Iγ(901.0)/Iγ(462.4)=20 *3*/80 *6* (2007MuZY). Eγ=916.5 *4*, Iγ=1.4 *11* (1987Pi05).
911.0[&k] *4*	2.4[&] *9*	1109.7?		198.73	(11/2$^-$)			
911[d]		4772.1	(35/2$^+$)	3861.1	(31/2$^+$)			
930.0[e]		4288.9	(33/2$^-$)	3358.5	(29/2$^-$)			Iγ(930.0)/Iγ(282.1)=6.3 *8*/79 *4* (2007MuZY).
935.0[e]		5787.5	(41/2$^-$)	4852.6	(37/2$^-$)	[E2]		B(E2)↓=0.19 *3* (2007Mu14) Iγ(935.0)/Iγ(471.4)=30 *4*/70 *7* (2007MuZY).
939[dk]		5286.1?	(37/2$^+$)	4347.1	(33/2$^+$)			
940[ck] *1*		2209.7?	(17/2)	1269.67	(17/2$^-$)			
945.50 *25*	0.55 *7*	8539.5	(53/2$^+$)	7594.0	(49/2$^+$)			
949[c] *1*	0.12[c] *2*	3324.5	(25/2$^+$)	2375.8	(23/2$^-$)	(D)[g]		DCO(28°/90°)=0.90 *24* (1995De40).
949.0[e]		4598.6	(35/2$^-$)	3649.8	(31/2$^-$)			Iγ(949.0)/Iγ(309.0)=6.7 *10*/73 *4* (2007MuZY).
962[d]		5734.1	(39/2$^+$)	4772.1	(35/2$^+$)			
963.0[e]		4970.6	(37/2$^-$)	4008.0	(33/2$^-$)			Iγ(963.0)/Iγ(371.2)=8.6 *13*/66 *4* (2007MuZY).
964.6[c] *4*	0.07[c] *2*	3340.6	(25/2$^+$)	2375.8	(23/2$^-$)	(D)[g]		DCO(28°/90°)=0.75 *20* (1995De40).
966.0[e]		6281.5	(43/2$^-$)	5315.5	(39/2$^-$)	[E2]		B(E2)↓=0.21 *4* (2007Mu14) Iγ(966.0)/Iγ(493.9)=33 *5*/67 *7* (2007MuZY).
978.18 *25*	11.0 *2*	1176.9		198.73	(11/2$^-$)			A_2=+0.15 *6*, A_4=+0.01 *8* (1987Pi05).
1010.20 *25*	0.42 *6*	9549.7	(57/2$^+$)	8539.5	(53/2$^+$)			
1012[h]		6799.5	(45/2$^-$)	5787.5	(41/2$^-$)			
1013[ck] *1*		2533.4	(23/2)	1520.2	(19/2$^-$)			
1015.9[&k] *5*	5.8[&] *10*	1214.6?		198.73	(11/2$^-$)			
1047[dk]		7328.5?	(47/2$^-$)	6281.5	(43/2$^-$)			
1076.80 *25*	0.33 *6*	10626.5	(61/2$^+$)	9549.7	(57/2$^+$)			

$^{135}_{60}Nd_{75}$-11

(HI,xnγ) 1987Be57,1987Pi05,1995De40 (continued)

γ(^{135}Nd) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
1145.00 *25*	0.25 *6*	11771.6	(65/2$^+$)	10626.5	(61/2$^+$)		
1161.1 *25*	9.0 *2*	1954.3	(17/2$^+$)	793.06	(15/2$^-$)		A_2=−0.21 *6*, A_4=+0.07 *8* (1987Pi05).
1183.7[c] *4*	0.15[c] *3*	2703.7	(21/2$^+$)	1520.2	(19/2$^-$)	(D)[g]	DCO(28°/90°)=0.85 *23* (1995De40).
1214.70 *25*	0.16 *5*	12986.3	(69/2$^+$)	11771.6	(65/2$^+$)		
1217[d]		1777.0	(15/2$^+$)	560.51	(13/2$^-$)		
1275[ck] *1*		2795.5	(21/2$^+$)	1520.2	(19/2$^-$)		
1287.40 *25*	0.09 *4*	14273.7	(73/2$^+$)	12986.3	(69/2$^+$)		
1362 *1*	<0.1	15635.7	(77/2$^+$)	14273.7	(73/2$^+$)		E_γ,I_γ: from 1987Be57. Eγ=1359 (1993Pa02).
1437.2 *4*		17072.9	(81/2$^+$)	15635.7	(77/2$^+$)		
1466[ck] *1*		2259.4	(17/2)	793.06	(15/2$^-$)		
1519.5 *5*		18592.4	(85/2$^+$)	17072.9	(81/2$^+$)		
1605.0 *7*		20197.4	(89/2$^+$)	18592.4	(85/2$^+$)		
1692.0 *10*		21889.4	(93/2$^+$)	20197.4	(89/2$^+$)		

[†] From 1987Pi05 for normal deformed states and from 1995De40 for SD states, unless otherwise stated.
[‡] From 1987Pi05 for normal deformed states and from 1987Be57 (or 1995De40) for SD states, unless otherwise stated. Values for SD band transitions are relative intensities within the band, normalized to ≈1.0 for the most intense transition in the SD band.
[#] Mult=Q (most likely E2) and mult=dipole or D+Q (most likely M1+E2) is from consistency of γ(θ) and/or γγ(θ) (DCO) data with ΔJ=2 and ΔJ=1, respectively. ΔJ=0, mult=D+Q is possible also, but such cases are rare.
[@] Mainly from γ(θ) data of 1987Pi05.
[&] From γγ (1987Pi05).
[a] γ(θ) coefficients contain small contribution from an unresolved line (1987Pi05).
[b] γ(θ) coefficients allow a range δ>1 also.
[c] From 1995De40.
[d] From 1987Be57.
[e] From 2007Mu14 and/or 2007MuZY.
[f] Mult=(E2) suggested from a comparison of γ and ce spectra (1998Ae01,1997Ko37).
[g] γγ(θ) (DCO) data consistent with ΔJ=1.
[h] Level from 2003Zh25.
[i] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with "Frozen Orbitals" approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
[j] Multiply placed with intensity suitably divided.
[k] Placement of transition in the level scheme is uncertain.

$^{135}_{60}Nd_{75}$-12

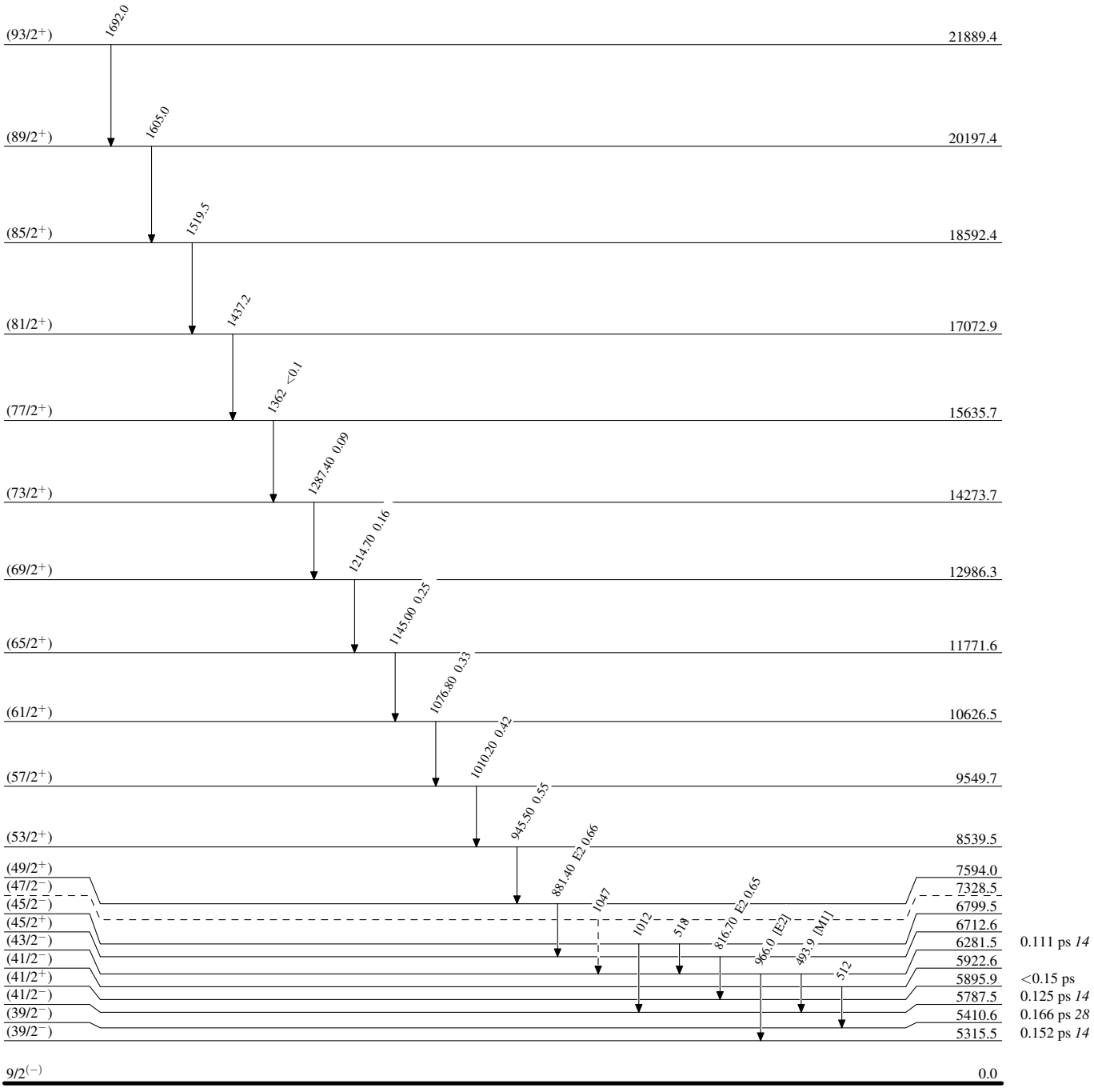
(HI,xnγ) 1987Be57,1987Pi05,1995De40

Level Scheme

Intensities: Relative I_γ

Legend

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



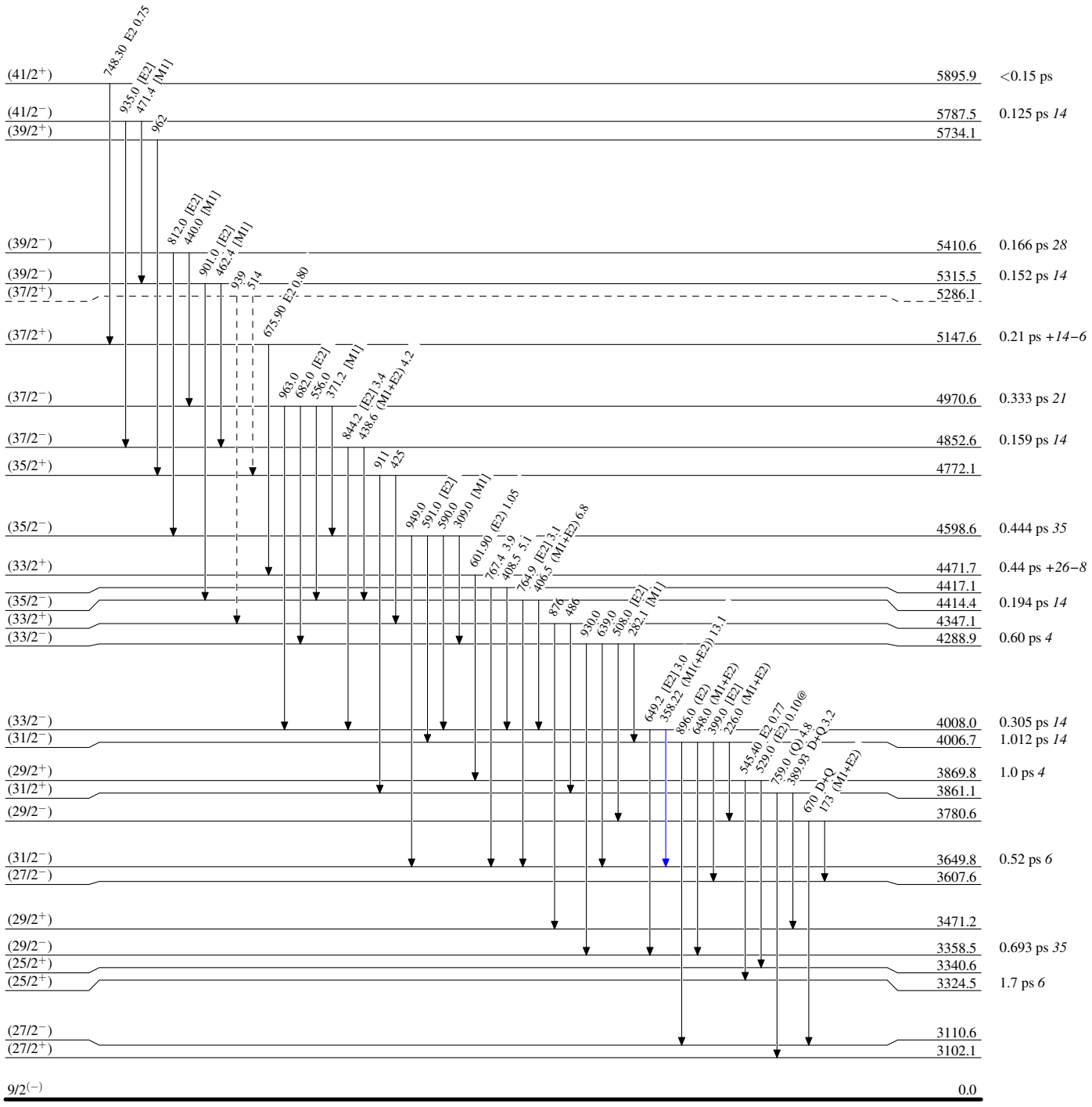
$^{135}_{60}Nd_{75}$

(HI,xnγ) 1987Be57,1987Pi05,1995De40

Level Scheme (continued)

Intensities: Relative I_γ
@ Multiply placed: intensity suitably divided

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

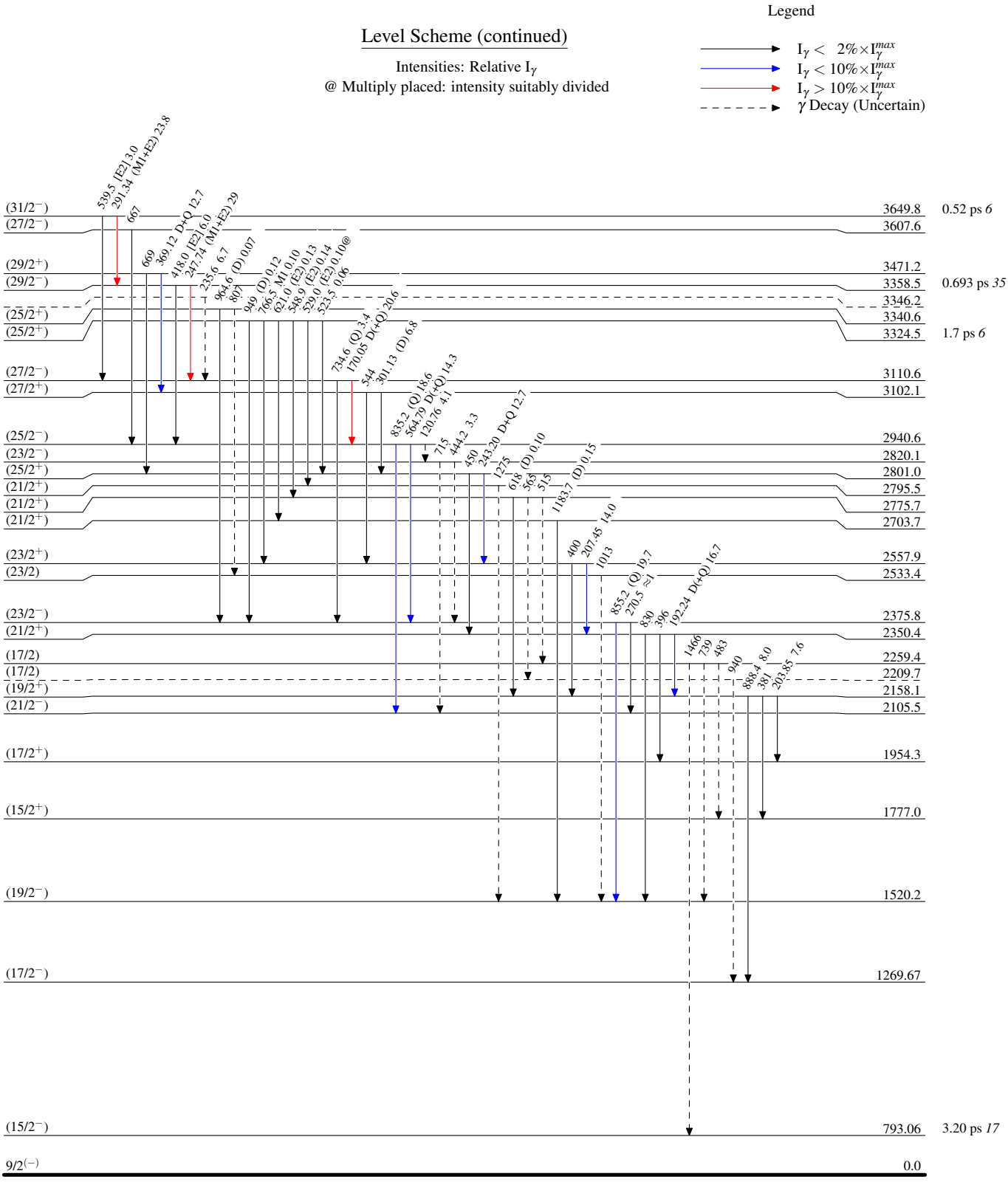


$^{135}_{60}Nd_{75}$

(HI,xnγ) 1987Be57,1987Pi05,1995De40

Level Scheme (continued)

Intensities: Relative I_γ
@ Multiply placed: intensity suitably divided

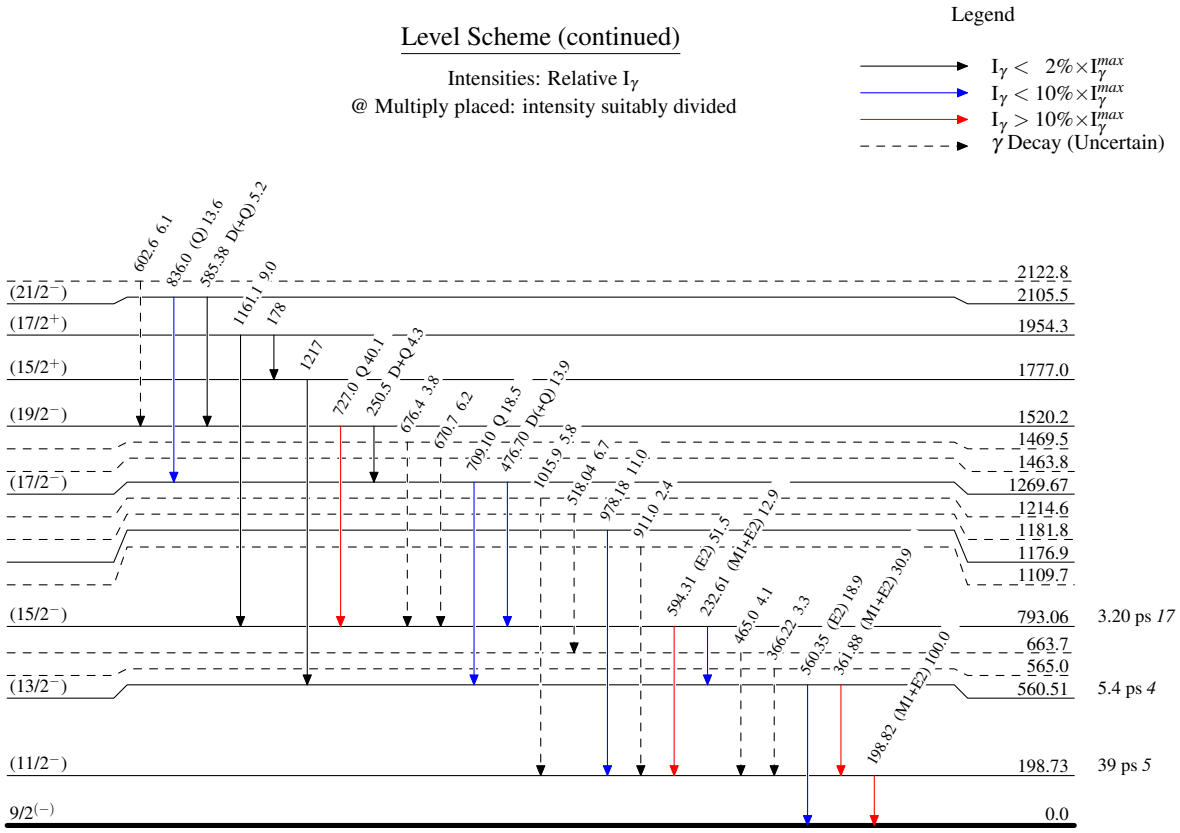


$^{135}_{60}Nd_{75}$

(HI,xnγ) 1987Be57,1987Pi05,1995De40

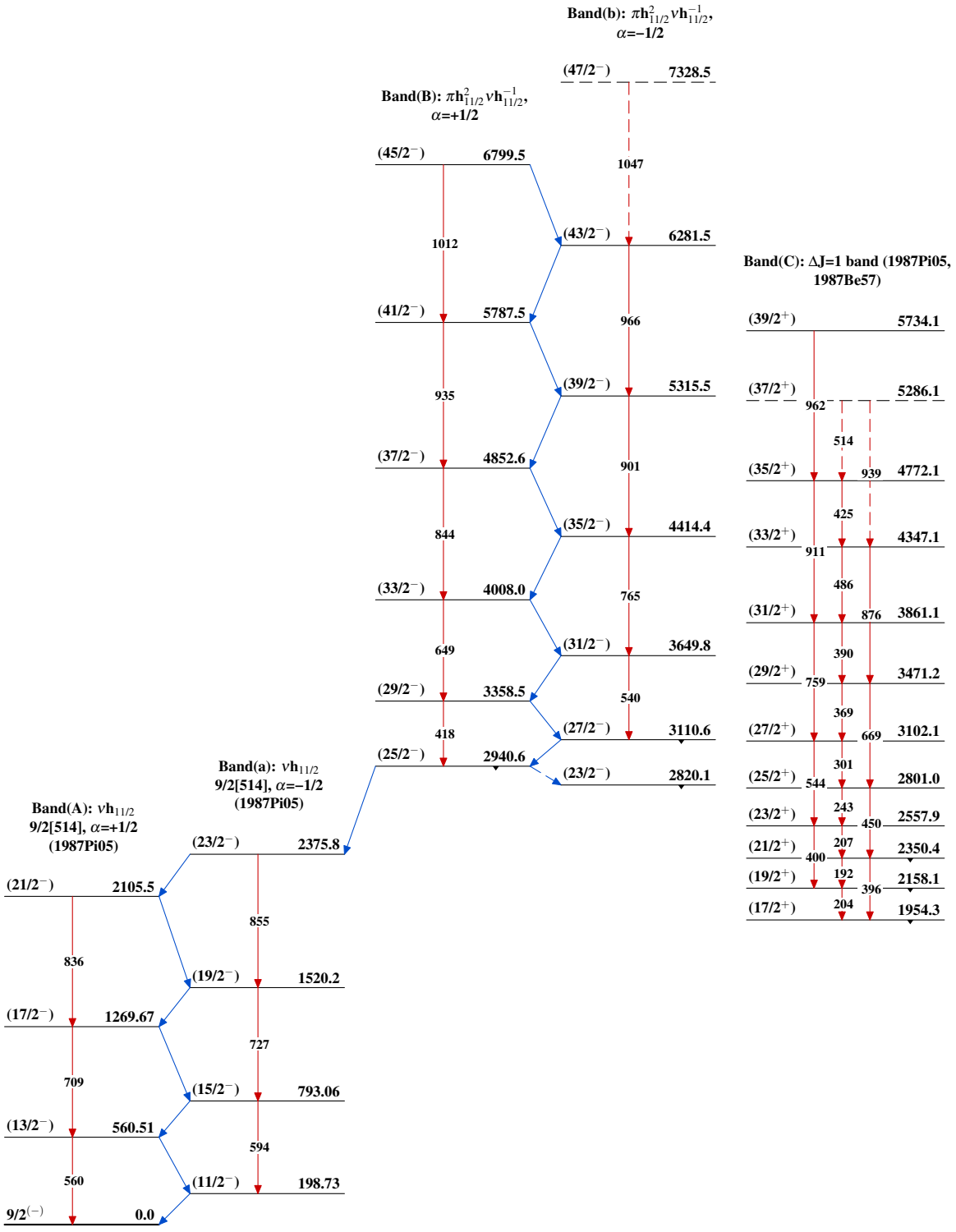
Level Scheme (continued)

Intensities: Relative I_γ
@ Multiply placed: intensity suitably divided



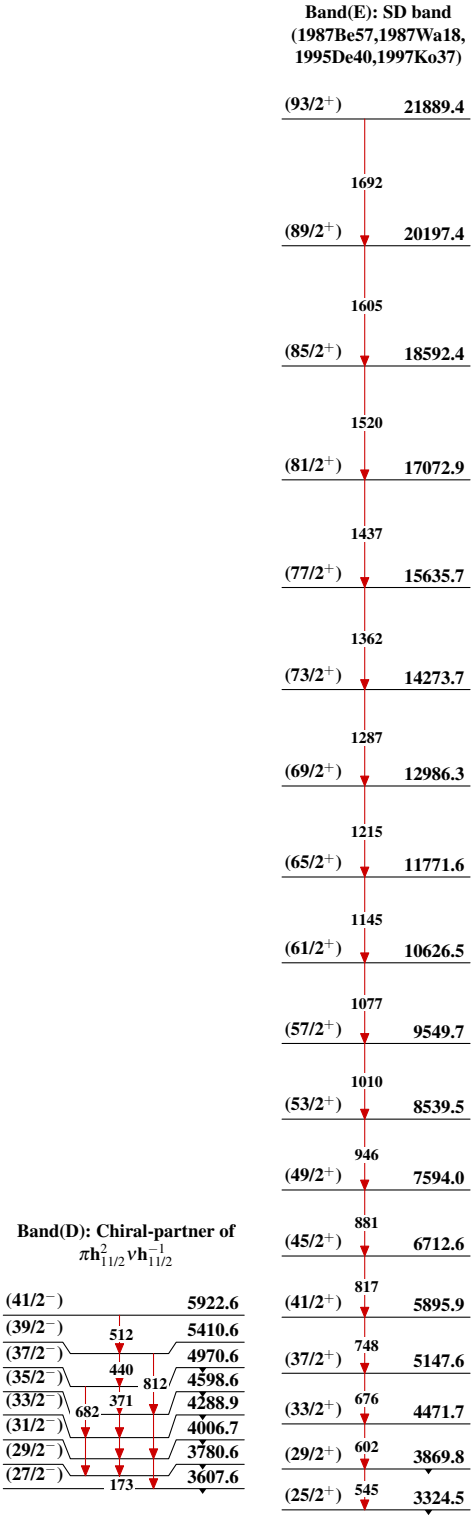
$^{135}_{60}Nd_{75}$

(HI,xnγ) 1987Be57,1987Pi05,1995De40



$^{135}_{60}Nd_{75}$

(HI,xnγ) 1987Be57,1987Pi05,1995De40 (continued)



$^{135}_{60}Nd_{75}$