(HI,xnγ)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. A. Sonzogni	NDS 103, 1 (2004)	31-Jul-2004

1999Kl11: ^{110}Pd(^{28}Si,4nγ), E=125 MeV, GASP array and Cologne plunger, measure $T_{1/2}$.
1998Pe01: ^{110}Pd(^{28}Si,4nγ), E=132 MeV, GASP array with 40 Compton-suppressed Ge detectors, 80 element BGO inner ball and ISIS Silicon sphere for light-charged particle identification. Measured DSA, band quadrupole moments.
1997Pe07: ^{110}Pd(^{28}Si,4nγ), E=130 MeV, GASP array with 40 Compton-suppressed Ge detectors and 80 element BGO inner ball. Level properties for negative parity bands reported.
1996Pe21(also 1998Pe15 and 1997Pe17): Same reaction and setup as 1997Pe07.
1997Ni04 (also 1997Fl03): ^{112}Cd(^{26}Mg,4nγ) E=94 MeV and ^{64}Ni(^{74}Ge,4nγ) E=239 MeV. Measured relative populations of SD bands 1997Pe07, level properties for positive parity bands reported.
1995Kr08: ^{105}Pd(^{32}S,2pnγ), E= 152 MeV, ESSA array of 21 elements plus plunger. Measured $T_{1/2}$.
1995Ma96: ^{107}Ag(^{32}S,3p2n), E=170 MeV. Measured DSA, $T_{1/2}$.
1994Pe16: ^{110}Pd(^{28}Si,4nγ), E=130 MeV, GASP array with 31 Compton-suppressed Ge detectors and 80 element BGO inner ball. Highly deformed bands reported.
1993Pa02: ^{104}Ru(^{34}S,4nγ) E=155, 160 MeV.
1989Wa08, 1987Wa18: ^{104}Ru(^{34}S,4nγ) E=150 MeV.
1989Je03: ^{104}Ru(^{36}S,6nγ) E=155 MeV.
1988Wa01: ^{92}Mo(^{46}Ti,4pγ) E=210 MeV.
1987Pa30: ^{104}Pd(^{37}Cl,AP2NG) E=170 MeV, ^{110}Cd(^{28}Si,2p2nγ) E=162 MeV, ^{112}Cd(^{27}Al,p4nγ) E=140 MeV.
1987Be32: ^{98}Mo(^{40}Ar,4nγ) E=173 MeV.
1972Pa26: ^{118}Sn(^{20}Ne,4nγ) E=82-100 MeV.
Other: 1988WaZS, 1989OgZY.

^{134}Nd Levels

Highly deformed bands: a band proposed by 1987Be32 and 1987Wa18, from later studies (1993Pa02,1994Pe16) was reassigned to ^{131}Ce. Instead, two different highly deformed bands are assigned (by 1994Pe16,1996Pe10) to ^{134}Nd.

E(level)	J^{π}[e]	$T_{1/2}$	Comments
0.0[†]	0^+	8.5 min *15*	$T_{1/2}$: from Adopted Levels.
294.28[†] *16*	2^+	64.4 ps *18*	g=+0.54 *16* (1987Bi13) g: authors′ value revised to +0.62 *18* by 1989Ra17 for consistency with reference standard. $T_{1/2}$: weighted average of 65.4 ps *21* (1999Kl11), 64 ps *4* (1987Bi13) and 55 ps *7* (1995Ma96). Other: 104 ps *9* (1987Wa02).
753.72[a] *16*	(2^+)		
788.93[†] *22*	4^+	3.42 ps *7*	$T_{1/2}$: from 1999Kl11. Other: 4.9 ps *5* (1995Kr08), 4.2 ps *8* (1995Ma96),≤3.5 ps (1987Bi13), 11.1 ps *14* (1987Wa02).
1088.7?[a] *3*	(3^+)		
1312.97[a] *22*	(4^+)		
1420.1[†] *3*	6^+	1.13 ps *4*	$T_{1/2}$: from 1999Kl11. Other: 1.9 ps *9* (1995Kr08),≤9 ps (1987Bi13), 5.0 ps *5* (1987Wa02).
1910.6[a] *3*	(6^+)		
1956.1[‡] *3*	(5^-)		
2126.5 *3*	8^+	0.71 ps *7*	$T_{1/2}$: from 1999Kl11. Other: 3.3 ps *5* (1987Wa02).
2293.0[c] *4*	$(8)^-$	410 μs *30*	$T_{1/2}$: from ^{134}Nd IT decay.
2340.6[‡] *3*	(7^-)		
2412.5[#] *3*	(6^-)		
2467.2[a] *3*	(8^+)	0.85[f] ps *21*	
2719.7[c] *6*	(9^-)		

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(HI,xnγ) (continued)

^{134}Nd Levels (continued)

E(level)	J^{π}[e]	$T_{1/2}$	Comments
2728.5[#] 3	(8$^-$)	17.2[f] ps 12	
2816.9[†] 4	10$^+$	0.49 ps 3	$T_{1/2}$: from 1999Kl11. Other: 9.0 ps 14 (1989OgZY). g-factor:≈0 from IPAD (1989OgZY).
2840.8[‡] 5	(9$^-$)		
3051.9[a] 3	(10$^+$)	3.39[f] ps 16	
3164.4 5	(10$^+$)		
3181.9[c] 6	(10$^-$)		
3200.2[#] 4	(10$^-$)	4.71[f] ps 14	
3436.5[a] 4	(12$^+$)	7.49[f] ps 21	
3453.1[‡] 5	(11$^-$)		
3482.9[†] 4	12$^+$	0.43[f] ps 3	
3653.1[c] 6	(11$^-$)		
3863.0[#] 5	(12$^-$)		
4028.2[a] 4	(14$^+$)		
4129.6[c] 6	(12$^-$)		
4175.5[‡] 5	(13$^-$)		
4183.6[†] 5	14$^+$		
4238.9 6	(12$^-$)		
4371.5 5	(11$^-$)		
4376.7 5	(11$^-$)		
4513.1[b] 6	(12$^-$)		
4592.0[c] 6	(13$^-$)		
4607.5[#] 5	(14$^-$)		
4712.6[b] 8	(13$^-$)		
4776.7[a] 5	(16$^+$)	0.39[f] ps 8	
4942.6[†] 5	16$^+$		
4948.0[‡] 6	(15$^-$)		
4984.4 6	(14$^-$)		
4992.8 7	(14$^-$)		
4999.1[b] 9	(14$^-$)		
5200.3[d] 7	(15$^-$)		
5345.9[#] 5	(16$^-$)		
5361.3[b] 9	(15$^-$)		
5456.0[d] 8	(16$^-$)		
5629.6[a] 8	(18$^+$)		
5711.1[‡] 6	(17$^-$)		
5769.5[d] 8	(17$^-$)		
5777.7[†] 10	18$^+$		
5788.9[b] 10	(16$^-$)		
6082.5[#] 6	(18$^-$)		
6137.6[d] 8	(18$^-$)		
6269.9[b] 10	(17$^-$)		
6300.3[@] 9	(17$^-$)		
6488.1[‡] 12	(19$^-$)		
6531.6[a] 13	(20$^+$)		
6543.9[d] 9	(19$^-$)		
6710.7[†] 14	20$^+$		

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(HI,xnγ) (continued)

^{134}Nd Levels (continued)

E(level)	Jπ[e]	E(level)	Jπ[e]	E(level)	Jπ[e]	E(level)	Jπ[e]
6786.0[b] *10*	(18⁻)	8330.9[d] *11*	(23⁻)	10861.9[d] *12*	(27⁻)	14770.5[@] *12*	(35⁻)
6831.5[&] *10*	(18⁺)	8453.6[a] *19*	(24⁺)	11015.1[&] *14*	(28⁺)	14911[‡] *3*	(35⁻)
6891.5[#] *12*	(20⁻)	8509.7[@] *10*	(23⁻)	11049.5[#] *23*	(28⁻)	15375[a] *4*	(36⁺)
6935.8[d] *10*	(20⁻)	8812.5[#] *19*	(24⁻)	11323.6[†] *18*	(28⁺)	15533.0[&] *16*	(36⁺)
6961.5?[h] *11*	(19⁻)	8869.7[†] *20*	(24⁺)	11335.9[@] *10*	(29⁻)	16060.4[@] *13*	(37⁻)
6965.7?[g] *11*	(19⁻)	8896.5[d] *11*	(24⁻)	11366[‡] *3*	(29⁻)	16255[‡] *4*	(37⁻)
6968.2[@] *9*	(19⁻)	9144.2[&] *14*	(24⁺)	11787[a] *3*	(30⁺)	16700[a] *4*	(38⁺)
7291.8[b] *11*	(19⁻)	9371.0[‡] *21*	(25⁻)	12058.2[&] *15*	(30⁺)	16801.9[&] *17*	(38⁺)
7349.5[d] *10*	(21⁻)	9386.3[@] *10*	(25⁻)	12246[#] *3*	(30⁻)	17427.7[@] *16*	(39⁻)
7358.1[‡] *16*	(21⁻)	9501.6[a] *22*	(26⁺)	12410.7[@] *11*	(31⁻)	17685[‡] *4*	(39⁻)
7467.6[a] *17*	(22⁺)	9510.7[d] *11*	(25⁻)	12469[‡] *3*	(31⁻)	18095[a] *4*	(40⁺)
7557.7[&] *9*	(20⁺)	9900.5[#] *21*	(26⁻)	12593.6[†] *21*	(30⁺)	18147.0[&] *19*	(40⁺)
7701.6[@] *9*	(21⁻)	10042.8[&] *14*	(26⁺)	12938[a] *3*	(32⁺)	18875.7[@] *19*	(41⁻)
7744.7[†] *17*	(22⁺)	10089.5[†] *15*	(26⁺)	13164.3[&] *15*	(32⁺)	19203[‡] *4*	(41⁻)
7804.5[#] *16*	(22⁻)	10167.6[d] *12*	(26⁻)	13554.5[@] *11*	(33⁻)	19521[a] *4*	(42⁺)
7813.7[d] *10*	(22⁻)	10328.5[@] *10*	(27⁻)	13650[‡] *3*	(33⁻)	20410.7[@] *21*	(43⁻)
8322.8[&] *14*	(22⁺)	10339.0[‡] *23*	(27⁻)	14122[a] *3*	(34⁺)	20807[‡] *4*	(43⁻)
8328.1[‡] *19*	(23⁻)	10616.6[a] *24*	(28⁺)	14322.9[&] *15*	(34⁺)	21007[a] *4*	(44⁺)

[†] Band(A): g.s. band.
[‡] Band(B): Odd-spin negative-parity sideband.
[#] Band(C): Even-spin negative-parity sideband.
[@] Band(D): Highly deformed Yrast band. Q(intrinsic)=6.8 *3* (1998Pe01), corresponds to β_2=0.35 *1*. Percent population=1.5. Configuration involves (1994Pe16) a single i13/2 neutron rather than a pair of i13/2 neutrons.
[&] Band(E): Highly deformed excited band. Q(intrinsic)=6.4 *4* (1998Pe01), corresponds to β_2=0.33 *2*. Percent population=0.5. Configuration involves (1994Pe16) a neutron in N=6 (α=−1/2) orbit and another neutron in 5/2[402] or 1/2[530] neutron orbital.
[a] Band(F): Positive-parity sideband. For lower spin part (J<30) Q(intrinsic)=4.9 *3* which corresponds to β_2= 0.26 *2*, while the upper spin part has Q(intrinsic)≈6.5, β_2≈0.34. For the whole band, the average values are Q(intrinsic)=5.0 *3* and β_2=0.26 *2* (1998Pe01). At the lowest spin values, it shows a γ-vibrational nature.
[b] Band(G): Negative parity, M1/E2 side band.
[c] Band(H): Band based on (8⁻), 410 μs isomer.
[d] Band(I): Negative parity, M1/E2 side band.
[e] From Adopted Levels.
[f] From 1999Kl11.
[g] Level position uncertain since ordering of 736-1336 cascade is not established (1996Pe10).
[h] Level position uncertain since ordering of 740-1332 cascade is not established (1996Pe10).

$\gamma(^{134}Nd)$

Eγ[†]	Iγ[†]	Ei(level)	Jiπ	Ef	Jfπ	Mult.[‡]	α[c]	Comments
136.4[a] *5*	1.8 *3*	4513.1	(12⁻)	4376.7	(11⁻)			DCO=0.6 *2* (1997Pe07) Q gated.
141.5[a] *5*	1.05 *19*	4513.1	(12⁻)	4371.5	(11⁻)			DCO=0.7 *2* (1997Pe07) Q gated.
166.5 *3*		2293.0	(8)⁻	2126.5	8⁺	E1	0.0646	α(K)=0.0550 *17*; α(L)=0.00754 *23*; α(M)=0.00157 *5*; α(N+..)=0.00044 *1* Eγ,Mult.: from ^{134}Nd IT decay.

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(HI,xnγ) (continued)

γ(^{134}Nd) (continued)

E_γ[†]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	α[c]	Comments
199.5[a] 5	4.3 3	4712.6	(13$^-$)	4513.1	(12$^-$)			DCO=0.52 9 (1997Pe07) Q gated.
207.4[a] 5	1.9 19	5200.3	(15$^-$)	4992.8	(14$^-$)			DCO=1.01 6 (1997Pe07) D gated.
215.9[a] 5	4.66 19	5200.3	(15$^-$)	4984.4	(14$^-$)			DCO=0.60 9 (1997Pe07) Q gated.
255.7[a] 5	8.6 5	5456.0	(16$^-$)	5200.3	(15$^-$)			DCO=0.6 1 (1997Pe07) Q gated.
286.7[a] 5	5.5 4	4999.1	(14$^-$)	4712.6	(13$^-$)			DCO=0.52 6 (1997Pe07) Q gated.
294.2 2	95 1	294.28	2$^+$	0.0	0$^+$	E2	0.0560	α(K)=0.0442 14; α(L)=0.0092 3; α(M)=0.00201 6; α(N+..)=0.00054 2 B(E2)(W.u.)=93 3
313.3[a] 5	6.84 19	5769.5	(17$^-$)	5456.0	(16$^-$)			DCO=1.04 6 (1997Pe07) D gated.
316.0 2	1.5 2	2728.5	(8$^-$)	2412.5	(6$^-$)	(E2)	0.0448	α(K)=0.0356 11; α(L)=0.00716 22; α(M)=0.00156 5; α(N+..)=0.00042 1 B(E2)(W.u.)=63 11
335.0 2	1.0 3	1088.7?	(3$^+$)	753.72	(2$^+$)			
362.4[a] 5	4.7 4	5361.3	(15$^-$)	4999.1	(14$^-$)			DCO=0.99 6 (1997Pe07) D gated.
368.0[a] 5	6.18 19	6137.6	(18$^-$)	5769.5	(17$^-$)			DCO=0.87 3 (1997Pe07) D gated.
384.6 2	4.6 6	2340.6	(7$^-$)	1956.1	(5$^-$)	(E2)	0.0248	α(K)=0.0201 6; α(L)=0.00365 11; α(M)=0.00079 2; α(N+..)=0.00021 1
384.6 2	11.9 6	3436.5	(12$^+$)	3051.9	(10$^+$)	(E2)	0.0248	α(K)=0.0201 6; α(L)=0.00365 11; α(M)=0.00079 2; α(N+..)=0.00021 1 B(E2)(W.u.)=99 7
387.9 2	4.5 5	2728.5	(8$^-$)	2340.6	(7$^-$)	D		
391.9[a] 5	3.2 3	6935.8	(20$^-$)	6543.9	(19$^-$)			DCO=1.13 15 (1997Pe07) Q gated.
392.2[a] 5	1.52 10	4984.4	(14$^-$)	4592.0	(13$^-$)			
406.3[a] 5	4.47 19	6543.9	(19$^-$)	6137.6	(18$^-$)			DCO=0.92 6 (1997Pe07) D gated.
413.6[a] 5	2.9 3	7349.5	(21$^-$)	6935.8	(20$^-$)			DCO=0.99 9 (1997Pe07) D gated.
426.9[a]	5.7 10	2719.7	(9$^-$)	2293.0	(8)$^-$			
427.3[a] 5	3.14 19	5788.9	(16$^-$)	5361.3	(15$^-$)			DCO=1.2 3 (1997Pe07) D gated.
459.3 2	6.1 5	753.72	(2$^+$)	294.28	2$^+$			
462[a] 1	1.62 19	4592.0	(13$^-$)	4129.6	(12$^-$)			
462.3[a] 5	3.1 7	3181.9	(10$^-$)	2719.7	(9$^-$)			DCO=1.09 20 (1997Pe07) D gated.
463.9[a] 5	2.4 1	7813.7	(22$^-$)	7349.5	(21$^-$)			
471.3[a] 5	3.14 19	3653.1	(11$^-$)	3181.9	(10$^-$)			DCO=0.54 8 (1997Pe07) Q gated.
471.7 2	7.6 6	3200.2	(10$^-$)	2728.5	(8$^-$)	(E2)	0.0138	α(K)=0.0114 4; α(L)=0.00190 6; α(M)=0.00041 1; α(N+..)=0.00011 B(E2)(W.u.)=125 4
476.5[a] 5	2.19 19	4129.6	(12$^-$)	3653.1	(11$^-$)			DCO=0.43 8 (1997Pe07) Q gated.
480.9[a] 5	2.57 19	6269.9	(17$^-$)	5788.9	(16$^-$)			
491 1	<1	1910.6	(6$^+$)	1420.1	6$^+$			
494.7 2	80 1	788.93	4$^+$	294.28	2$^+$	E2	0.0121	α(K)=0.0101 3; α(L)=0.00165 5; α(M)=0.00035 1 B(E2)(W.u.)=135 3
500.3[a] 5	21.4 7	2840.8	(9$^-$)	2340.6	(7$^-$)			DCO=1.07 20 (1997Pe07) Q gated.
505.7[a] 5	2.28 19	7291.8	(19$^-$)	6786.0	(18$^-$)			
516.2[a] 5	2.28 19	6786.0	(18$^-$)	6269.9	(17$^-$)			DCO=1.03 3 (1997Pe07) D gated.
517.1[a] 5	2.09 19	8330.9	(23$^-$)	7813.7	(22$^-$)			
523.8 2	3.1 4	1312.97	(4$^+$)	788.93	4$^+$			
545[#]		4028.2	(14$^+$)	3482.9	12$^+$			
556.3 2	5.6 4	2467.2	(8$^+$)	1910.6	(6$^+$)			
559.2 2	4.8 4	1312.97	(4$^+$)	753.72	(2$^+$)			
565.7[a] 5	1.05 19	8896.5	(24$^-$)	8330.9	(23$^-$)			DCO=1.1 3 (1997Pe07) D gated.
569.3[a] 5	1.05 19	5769.5	(17$^-$)	5200.3	(15$^-$)			DCO=1.9 2 (1997Pe07) D gated.
584.7 2	8.2 6	3051.9	(10$^+$)	2467.2	(8$^+$)			
591.7 2	24.1 8	4028.2	(14$^+$)	3436.5	(12$^+$)	(E2)	0.00764	α=0.00764; α(K)=0.00634 19; α(L)=0.00098 3

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(HI,xnγ) (continued)

γ(^{134}Nd) (continued)

E_γ[†]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	α[c]	Comments
593		4776.7	(16$^+$)	4183.6	14$^+$			γ from 1996Pe10.
597.3 *2*	5.1 *5*	1910.6	(6$^+$)	1312.97	(4$^+$)			
612.3 *2*	12.5 *7*	3453.1	(11$^-$)	2840.8	(9$^-$)	(E2)	0.00701	α=0.00701; α(K)=0.00582 *18*; α(L)=0.00089 *3*
614[a] *1*	0.76 *19*	9510.7	(25$^-$)	8896.5	(24$^-$)			
619.5 *2*	14.3 *8*	3436.5	(12$^+$)	2816.9	10$^+$			
631.3 *2*	67 *5*	1420.1	6$^+$	788.93	4$^+$	E2	0.00649	α=0.00649; α(K)=0.00540 *17*; α(L)=0.00082 *3* B(E2)(W.u.)=123 *5*
648.6[a] *5*	0.57 *10*	5361.3	(15$^-$)	4712.6	(13$^-$)			
657[a] *1*	0.48 *10*	10167.6	(26$^-$)	9510.7	(25$^-$)			
662.8 *2*	7.2 *4*	3863.0	(12$^-$)	3200.2	(10$^-$)	(E2)	0.00576	α=0.00576; α(K)=0.00480 *15*; α(L)=0.00072 *2*
666.0 *2*	21.6 *9*	3482.9	12$^+$	2816.9	10$^+$	E2	0.00569	α=0.00569; α(K)=0.00475 *15*; α(L)=0.00071 *2* B(E2)(W.u.)=247 *18*
667.9[&] *5*	0.10[&] *5*	6968.2	(19$^-$)	6300.3	(17$^-$)	E2	0.00565	α=0.00565; α(K)=0.00471 *15*; α(L)=0.00071 *2* E_γ: 663.9 *5* (1994Pe16). R(DCO)=1.00 *3*.
681.6[a] *5*	1.05 *19*	6137.6	(18$^-$)	5456.0	(16$^-$)			DCO=2.0 *2* (1997Pe07) D gated.
690.4 *2*	39.4 *12*	2816.9	10$^+$	2126.5	8$^+$	E2	0.00522	α=0.00522; α(K)=0.00436 *13*; α(L)=0.00065 *2* B(E2)(W.u.)=181 *11*
694 *1*	0.57 *10*	10861.9	(27$^-$)	10167.6	(26$^-$)			
700.7 *2*	15.4 *9*	4183.6	14$^+$	3482.9	12$^+$	E2	0.00503	α=0.00503; α(K)=0.00421 *13*; α(L)=0.00062 *2*
706.4 *2*	56.2 *11*	2126.5	8$^+$	1420.1	6$^+$	E2	0.00494	α=0.00494; α(K)=0.00413 *13*; α(L)=0.00061 *2* B(E2)(W.u.)=111 *11*
714.1[a] *5*	5.04 *19*	2840.8	(9$^-$)	2126.5	8$^+$			DCO=0.61 *20* (1997Pe07) Q gated.
722.4 *2*	10.0 *7*	4175.5	(13$^-$)	3453.1	(11$^-$)	(E2)	0.00468	α=0.00468; α(K)=0.00392 *12*; α(L)=0.00058 *2*
726.4[&]	0.32[&] *5*	7557.7	(20$^+$)	6831.5	(18$^+$)			
733.3[&] *3*	0.37[&] *5*	7701.6	(21$^-$)	6968.2	(19$^-$)	E2	0.00452	α=0.00452; α(K)=0.00378 *12*; α(L)=0.00055 *2* E_γ: 736.7 *3* (1994Pe16). R(DCO)=0.88 *10*.
736		7701.6	(21$^-$)	6965.7?	(19$^-$)			E_γ: from 1996Pe10.
736.6 *2*	3.3 *3*	6082.5	(18$^-$)	5345.9	(16$^-$)			
738.4 *2*	4.3 *3*	5345.9	(16$^-$)	4607.5	(14$^-$)	(E2)	0.00445	α=0.00445; α(K)=0.00372 *12*; α(L)=0.00054 *2*
740		7701.6	(21$^-$)	6961.5?	(19$^-$)			E_γ: γ from 1996Pe10.
744.5 *2*	5.9 *4*	4607.5	(14$^-$)	3863.0	(12$^-$)	(E2)	0.00436	α=0.00436; α(K)=0.00365 *11*; α(L)=0.00053 *2*
745.5[a] *5*	2.0 *19*	4984.4	(14$^-$)	4238.9	(12$^-$)			DCO=1.09 *7* (1997Pe07) Q gated.
748.5 *2*	9.3 *4*	4776.7	(16$^+$)	4028.2	(14$^+$)	(E2)	0.00431	α=0.00431; α(K)=0.00361 *11*; α(L)=0.00053 *2* B(E2)(W.u.)=1.5×10^2 *4*
753.8 *2*		753.72	(2$^+$)	0.0	0$^+$			
753.9[a] *5*	2.38 *19*	4992.8	(14$^-$)	4238.9	(12$^-$)			DCO=1.06 *7* (1997Pe07) Q gated.
759.0 *2*	8.1 *8*	4942.6	16$^+$	4183.6	14$^+$	E2	0.00417	α=0.00417; α(K)=0.00349 *11*; α(L)=0.00051 *2*
763.1 *2*	2.8 *3*	5711.1	(17$^-$)	4948.0	(15$^-$)			
765.1[&]	0.60[&] *5*	8322.8	(22$^+$)	7557.7	(20$^+$)			
772.5 *2*	5.9 *7*	4948.0	(15$^-$)	4175.5	(13$^-$)	(E2)	0.00400	α=0.00400; α(K)=0.00336 *10*; α(L)=0.00049 *2*
774.4[a] *5*	0.76 *19*	6543.9	(19$^-$)	5769.5	(17$^-$)			
777[#]		6488.1	(19$^-$)	5711.1	(17$^-$)			
785.7[a] *5*	5.0 *2*	4238.9	(12$^-$)	3453.1	(11$^-$)			DCO=1.04 *7* (1997Pe07) D gated.
790[a] *1*	0.8 *2*	5788.9	(16$^-$)	4999.1	(14$^-$)			
795.6[d] *2*	3.4 *4*	1088.7?	(3$^+$)	294.28	2$^+$			
798[a] *1*	0.9 *2*	6935.8	(20$^-$)	6137.6	(18$^-$)			
806[a] *1*	0.7 *2*	7349.5	(21$^-$)	6543.9	(19$^-$)			
808.1[&] *2*	1.00[&] *5*	8509.7	(23$^-$)	7701.6	(21$^-$)	E2	0.00361	α=0.00361; α(K)=0.00303 *9*; α(L)=0.00043 *1* E_γ: 807.8 *2* (1994Pe16). R(DCO)=1.00 *2*.
808.9[a] *5*	2.9 *2*	4984.4	(14$^-$)	4175.5	(13$^-$)			DCO=0.46 *9* (1997Pe07) Q gated.

Continued on next page (footnotes at end of table)

(HI,xnγ) (continued)

γ(^{134}Nd) (continued)

E_γ[†]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	α[c]	Comments
809[#]		6891.5	(20⁻)	6082.5	(18⁻)			
821.4[&] *3*	0.78[&] *3*	9144.2	(24⁺)	8322.8	(22⁺)	E2	0.00347	α=0.00347; α(K)=0.00292 *9*; α(L)=0.00042 *1* E_γ: 820.9 *3* (1994Pe16). R(DCO)=1.07 *10*.
835 *1*	<1	5777.7	18⁺	4942.6	16⁺	E2	0.00335	α=0.00335; α(K)=0.00281 *9*; α(L)=0.00040 *1*
853 *1*	<1	5629.6	(18⁺)	4776.7	(16⁺)	(E2)	0.00319	α=0.00319; α(K)=0.00268 *8*; α(L)=0.00038 *1*
855.1[a] *5*	1.3 *2*	4984.4	(14⁻)	4129.6	(12⁻)			DCO=2.15 *10* (1997Pe07) D gated.
870[#]		7358.1	(21⁻)	6488.1	(19⁻)			
874	7 *2*	2293.0	(8)⁻	1420.1	6⁺			E_γ: from ^{134}Nd IT decay.
876.6[&] *2*	1.00[&] *5*	9386.3	(25⁻)	8509.7	(23⁻)	E2	0.00300	α=0.00300; α(K)=0.00253 *8*; α(L)=0.00036 *1* E_γ: 876.5 *2* (1994Pe16). R(DCO)=1.00 *2*.
878.0[a] *5*	0.5 *1*	7813.7	(22⁻)	6935.8	(20⁻)			
888.9[a] *5*	3.1 *7*	3181.9	(10⁻)	2293.0	(8)⁻			DCO=2.2 *5* (1997Pe07) D gated.
898.6[&] *2*	1.00[&] *2*	10042.8	(26⁺)	9144.2	(24⁺)	E2	0.00284	α=0.00284; α(K)=0.00239 *8*; α(L)=0.00034 *1* E_γ: 898.5 *2* (1994Pe16). R(DCO)=1.10 *10*.
902[#]		6531.6	(20⁺)	5629.6	(18⁺)			
908.7[a] *5*	0.8 *2*	6269.9	(17⁻)	5361.3	(15⁻)			
913[#]		7804.5	(22⁻)	6891.5	(20⁻)			
920.4 *2*	13.6 *2*	2340.6	(7⁻)	1420.1	6⁺	(E1)	0.00110	α=0.00110; α(K)=0.00094 *3*; α(L)=0.00012
925.6 *2*	8.2 *8*	3051.9	(10⁺)	2126.5	8⁺	(E2)	0.00266	α=0.00266; α(K)=0.00225 *7*; α(L)=0.00031 *1* B(E2)(W.u.)=3.0 *4*
933[#]		6710.7	20⁺	5777.7	18⁺	E2	0.00262	α=0.00262; α(K)=0.00221 *7*; α(L)=0.00031 *1*
933.2[a] *5*	2.6 *2*	3653.1	(11⁻)	2719.7	(9⁻)			
936[#]		7467.6	(22⁺)	6531.6	(20⁺)			
938.8[a] *5*	2.0 *2*	4592.0	(13⁻)	3653.1	(11⁻)			
942.2[@] *2*	1.00	10328.5	(27⁻)	9386.3	(25⁻)			
947.9[a] *5*	2.9 *2*	4129.6	(12⁻)	3181.9	(10⁻)			DCO=1.05 *15* (1997Pe07) Q gated.
968[b]		10339.0	(27⁻)	9371.0	(25⁻)			
970[#]		8328.1	(23⁻)	7358.1	(21⁻)			
972.3[@] *2*	0.93 *5*	11015.1	(28⁺)	10042.8	(26⁺)			
981.6[a] *5*	0.8 *2*	8330.9	(23⁻)	7349.5	(21⁻)			
986[#]		8453.6	(24⁺)	7467.6	(22⁺)			
992.4 *2*	1.6 *3*	2412.5	(6⁻)	1420.1	6⁺			
997.1[a] *5*	0.95 *19*	6786.0	(18⁻)	5788.9	(16⁻)			
1007.4[@] *2*	1.02 *4*	11335.9	(29⁻)	10328.5	(27⁻)			
1008[#]		8812.5	(24⁻)	7804.5	(22⁻)			
1022[a] *1*	1.1 *2*	7291.8	(19⁻)	6269.9	(17⁻)			
1027[b]		11366	(29⁻)	10339.0	(27⁻)			
1034[#]		7744.7	(22⁺)	6710.7	20⁺			
1038.1[a] *5*	5.3 *5*	3164.4	(10⁺)	2126.5	8⁺			DCO=0.95 *5* (1997Pe07) Q gated.
1043[#]		9371.0	(25⁻)	8328.1	(23⁻)			
1043.1[@] *2*	0.85 *5*	12058.2	(30⁺)	11015.1	(28⁺)			
1047.3 *2*	5.3 *5*	2467.2	(8⁺)	1420.1	6⁺			
1048[#]		9501.6	(26⁺)	8453.6	(24⁺)			
1074.8[@] *3*	0.71 *5*	12410.7	(31⁻)	11335.9	(29⁻)			
1082.6[a] *5*	0.5 *1*	8896.5	(24⁻)	7813.7	(22⁻)			
1088[b]		9900.5	(26⁻)	8812.5	(24⁻)			

Continued on next page (footnotes at end of table)

(HI,xnγ) (continued)

γ(^{134}Nd) (continued)

E_γ[†]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	α[c]	Comments
1103[b]		12469	(31⁻)	11366	(29⁻)			
1106.1[@] 3	0.80 6	13164.3	(32⁺)	12058.2	(30⁺)			
1115[#]		10616.6	(28⁺)	9501.6	(26⁺)			
1125[#]		8869.7	(24⁺)	7744.7	(22⁺)			
1143.8[@] 3	0.49 5	13554.5	(33⁻)	12410.7	(31⁻)			
1149[b]		11049.5	(28⁻)	9900.5	(26⁻)			
1151[b]		12938	(32⁺)	11787	(30⁺)			
1158.6[@] 3	0.67 6	14322.9	(34⁺)	13164.3	(32⁺)			
1167.3 2	4.9 7	1956.1	(5⁻)	788.93	4⁺	(E1)	0.00071	α=0.00071; α(K)=0.00061 2
1170[#]		11787	(30⁺)	10616.6	(28⁺)			
1180.0[a] 5	0.29 10	9510.7	(25⁻)	8330.9	(23⁻)			
1181[b]		13650	(33⁻)	12469	(31⁻)			
1184[b]		14122	(34⁺)	12938	(32⁺)			
1193[b]		10089.5	(26⁺)	8896.5	(24⁻)			
1197[b]		12246	(30⁻)	11049.5	(28⁻)			
1207.2[a] 5	1.7 2	4371.5	(11⁻)	3164.4	(10⁺)			
1210.1[@] 5	0.47 8	15533.0	(36⁺)	14322.9	(34⁺)			
1212.3[a] 5	3.5 2	4376.7	(11⁻)	3164.4	(10⁺)			DCO=1.3 2 (1997Pe07) D gated.
1216.0[@] 4	0.47 6	14770.5	(35⁻)	13554.5	(33⁻)			
1234[b]		11323.6	(28⁺)	10089.5	(26⁺)			
1253[b]		15375	(36⁺)	14122	(34⁺)			
1261[b]		14911	(35⁻)	13650	(33⁻)			
1268.9[@] 5	0.41 8	16801.9	(38⁺)	15533.0	(36⁺)			
1270[b]		12593.6	(30⁺)	11323.6	(28⁺)			
1270.9[a] 5	0.19 10	10167.6	(26⁻)	8896.5	(24⁻)			
1289.9[@] 6	0.37 5	16060.4	(37⁻)	14770.5	(35⁻)			
1325[b]		16700	(38⁺)	15375	(36⁺)			
1331.9[&]	0.13[&] 3	6961.5?	(19⁻)	5629.6	(18⁺)			
1336.3[&]	0.07[&] 3	6965.7?	(19⁻)	5629.6	(18⁺)			
1338.6[&]	0.27[&] 3	6968.2	(19⁻)	5629.6	(18⁺)			
1344[b]		16255	(37⁻)	14911	(35⁻)			
1345.1[@] 9	0.26 7	18147.0	(40⁺)	16801.9	(38⁺)			
1351.3[a] 5	0.19 10	10861.9	(27⁻)	9510.7	(25⁻)			
1357.5[&]	0.04[&] 3	6300.3	(17⁻)	4942.6	16⁺			
1367.3[@] 8	0.26 7	17427.7	(39⁻)	16060.4	(37⁻)			
1395[b]		18095	(40⁺)	16700	(38⁺)			
1426[b]		19521	(42⁺)	18095	(40⁺)			
1430[b]		17685	(39⁻)	16255	(37⁻)			
1448[b] 1	<0.16	18875.7	(41⁻)	17427.7	(39⁻)			
1486[b]		21007	(44⁺)	19521	(42⁺)			
1518[b]		19203	(41⁻)	17685	(39⁻)			
1535[b]		20410.7	(43⁻)	18875.7	(41⁻)			
1554.3[a] 5	0.9 3	4371.5	(11⁻)	2816.9	10⁺			
1559.9[a] 5	1.7 3	4376.7	(11⁻)	2816.9	10⁺			
1604[b]		20807	(43⁻)	19203	(41⁻)			
1780[&]	0.12[&] 4	7557.7	(20⁺)	5777.7	18⁺			

Continued on next page (footnotes at end of table)

(HI,xnγ) (continued)

γ(^{134}Nd) (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π
1889&	0.17& 5	6831.5	(18^+)	4942.6	16^+
1928&	0.10& 3	7557.7	(20^+)	5629.6	(18^+)

† From (1987Pa30), except as noted.
‡ From γ(θ), directional correlation ratios and RUL.
# From 1989Je03, Iγ not given. 1 keV uncertainty assigned to Eγ.
@ From 1994Pe16. Iγ relative to 942.2 γ (Iγ=1) for yrast highly-deformed band, and to 989.6 γ (Iγ=1) for excited highly-deformed band.
& From 1996Pe10. Energy uncertainty is assigned from 1994Pe16 when available for a similar transition. Iγ relative to 942.2 γ (Iγ=1) for yrast highly-deformed band, and to 989.6 γ (Iγ=1) for excited highly-deformed band.
a γ information from 1997Pe07.
b γ information from 1996Pe21.
c 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.
d Placement of transition in the level scheme is uncertain.

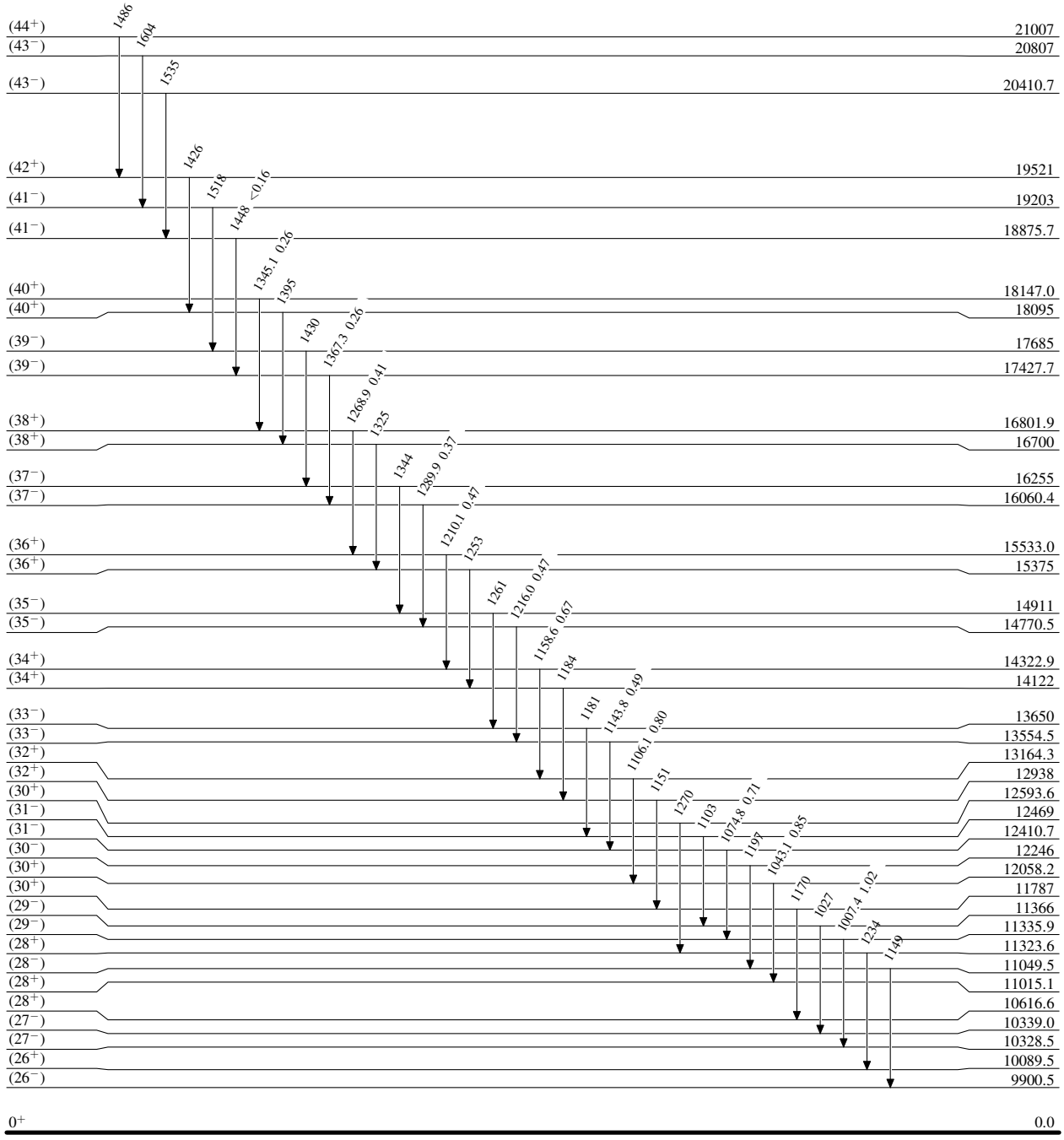
(HI,xnγ)

Legend

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

Level Scheme

Intensities: Relative I_γ



$^{134}_{60}Nd_{74}$

(HI,xnγ)

Level Scheme (continued)

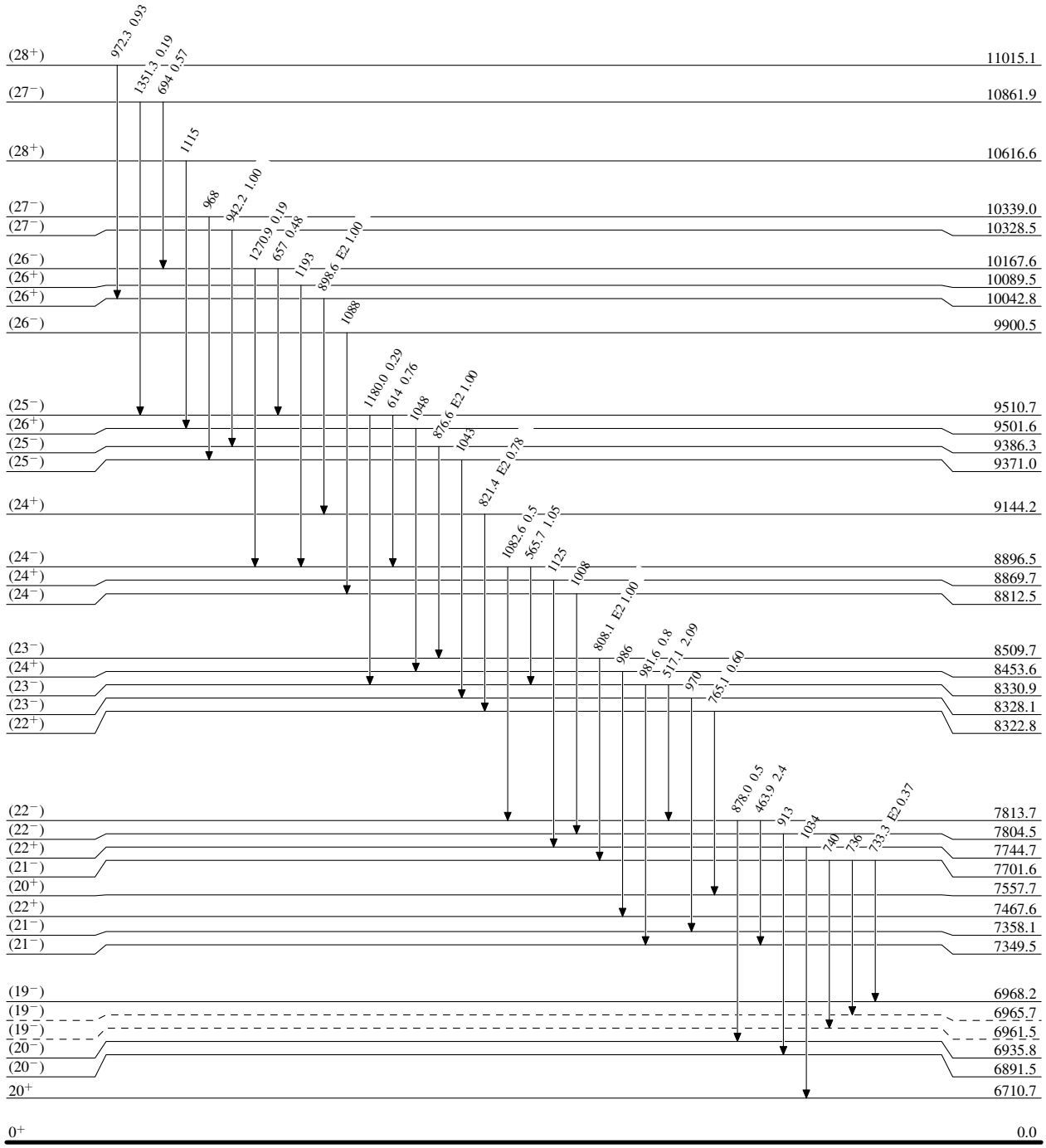
Intensities: Relative I_γ

Legend

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

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

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



$^{134}_{60}Nd_{74}$

(HI,xnγ)

Level Scheme (continued)

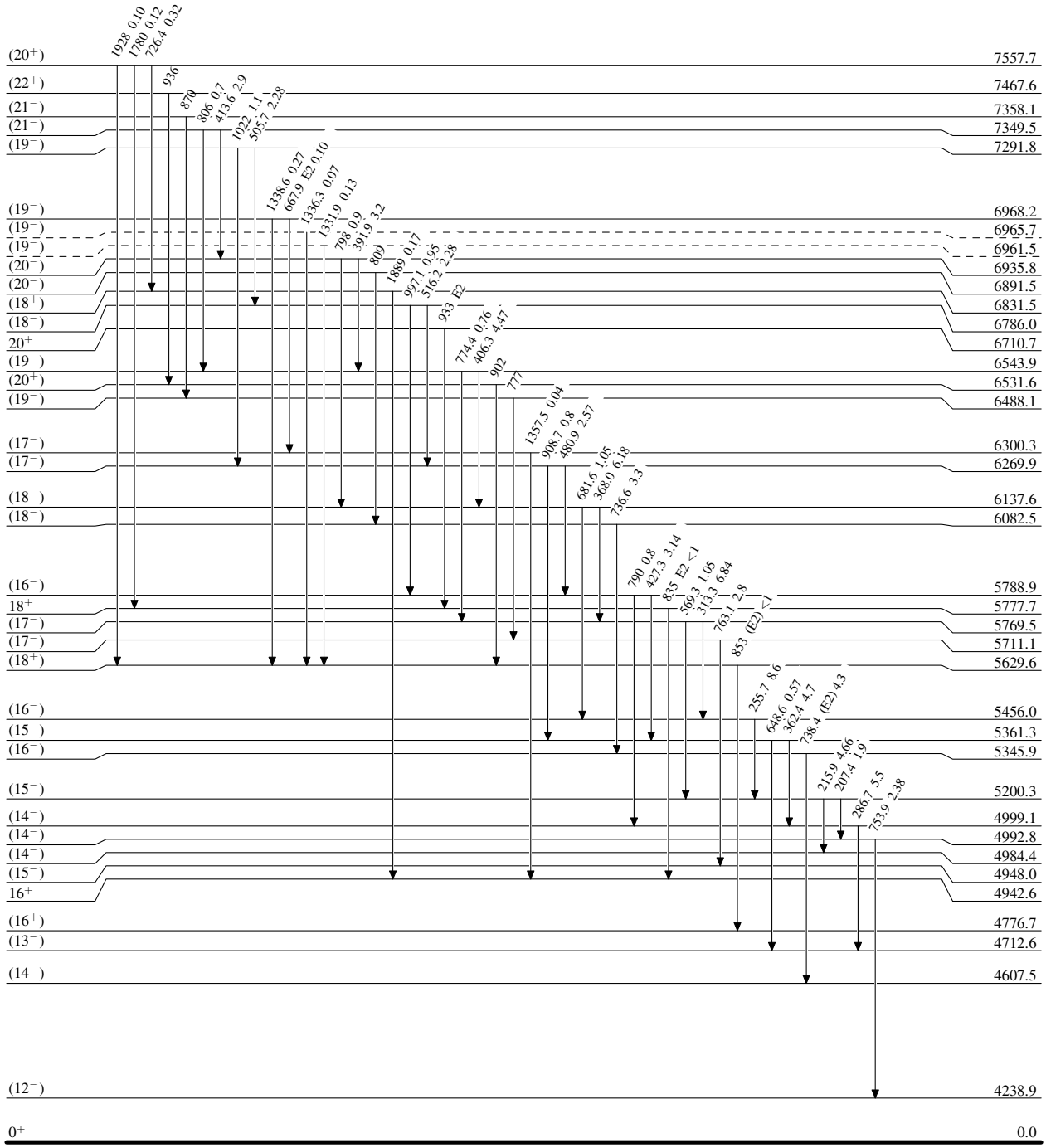
Intensities: Relative I_γ

Legend

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

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

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

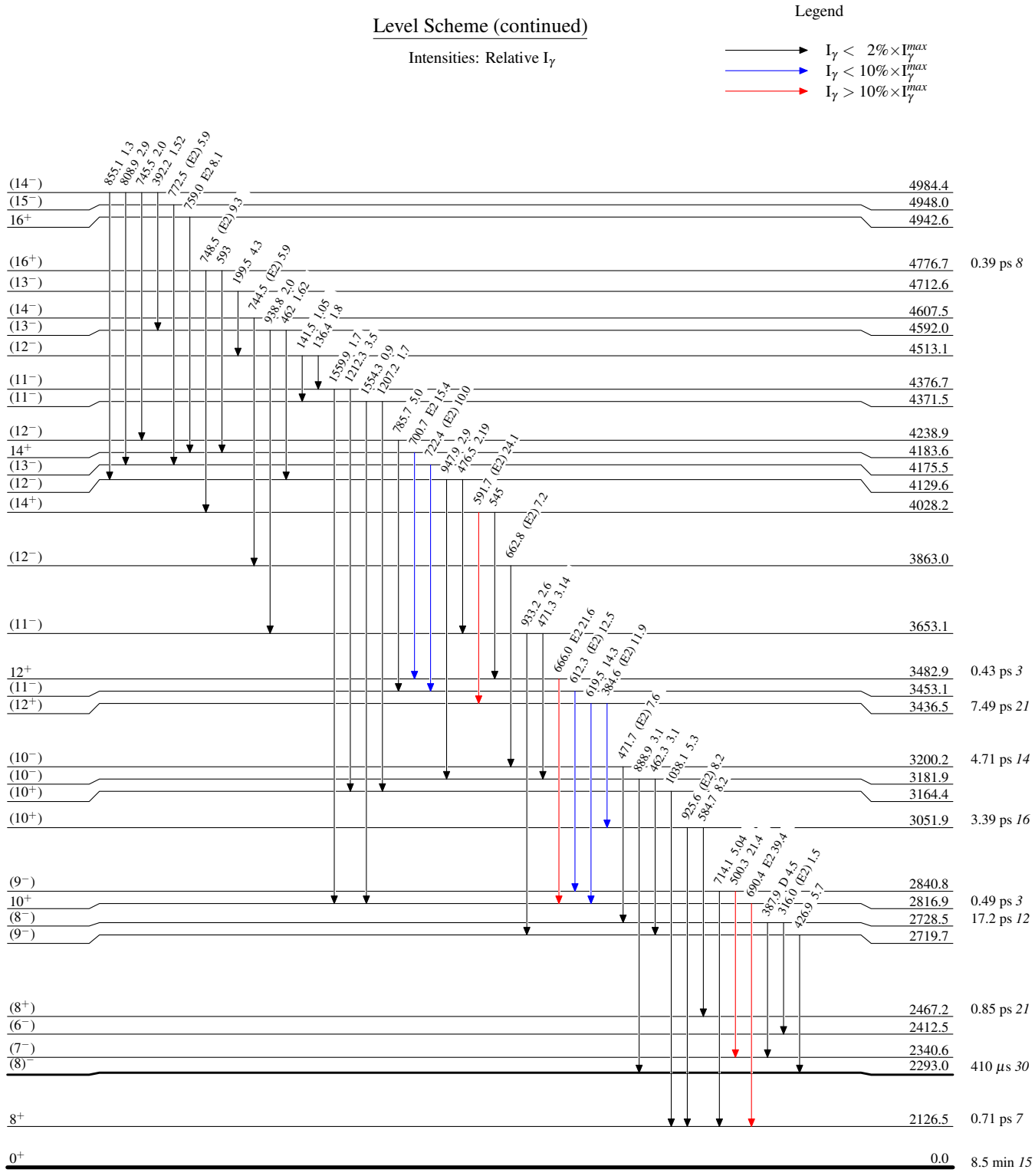


$^{134}_{60}Nd_{74}$

(HI,xnγ)

Level Scheme (continued)

Intensities: Relative I_γ



$^{134}_{60}Nd_{74}$

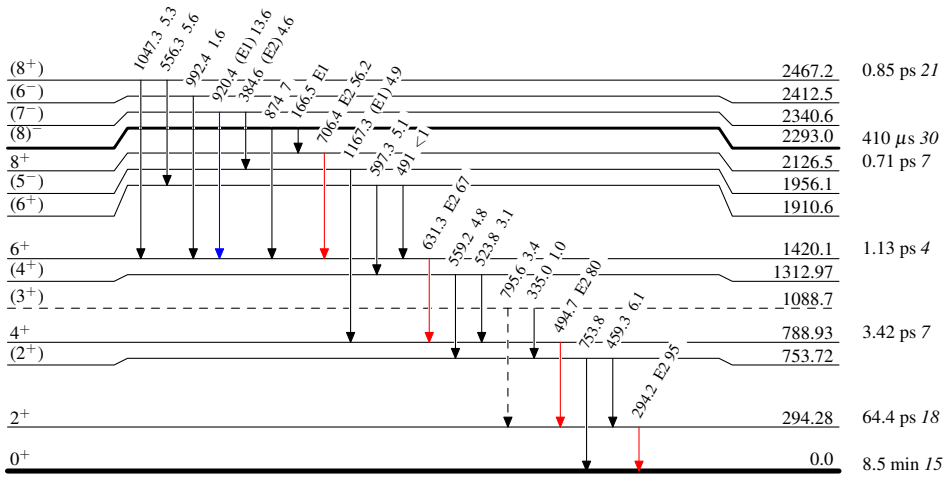
(HI,xnγ)

Level Scheme (continued)

Intensities: Relative I_γ

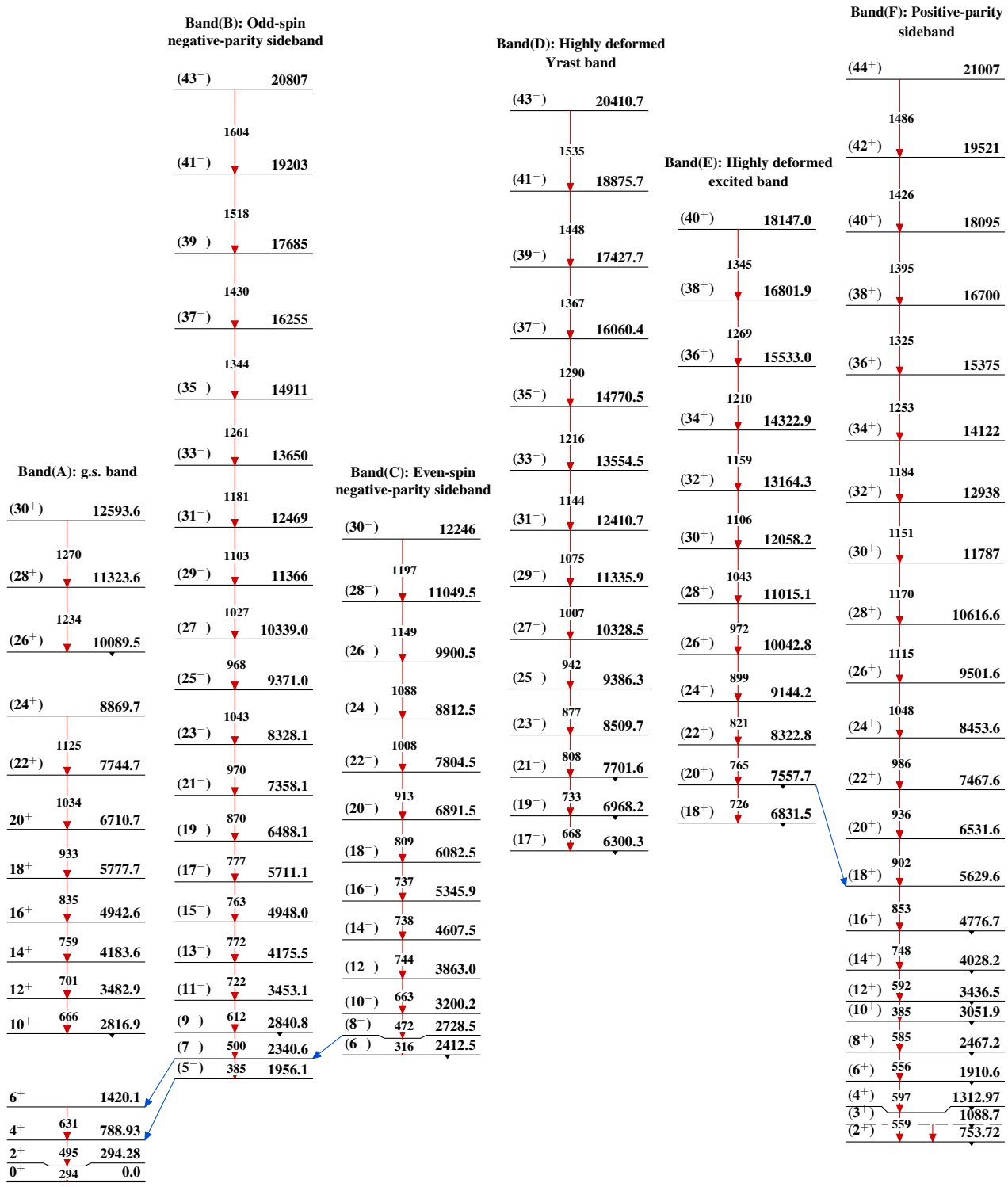
Legend

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

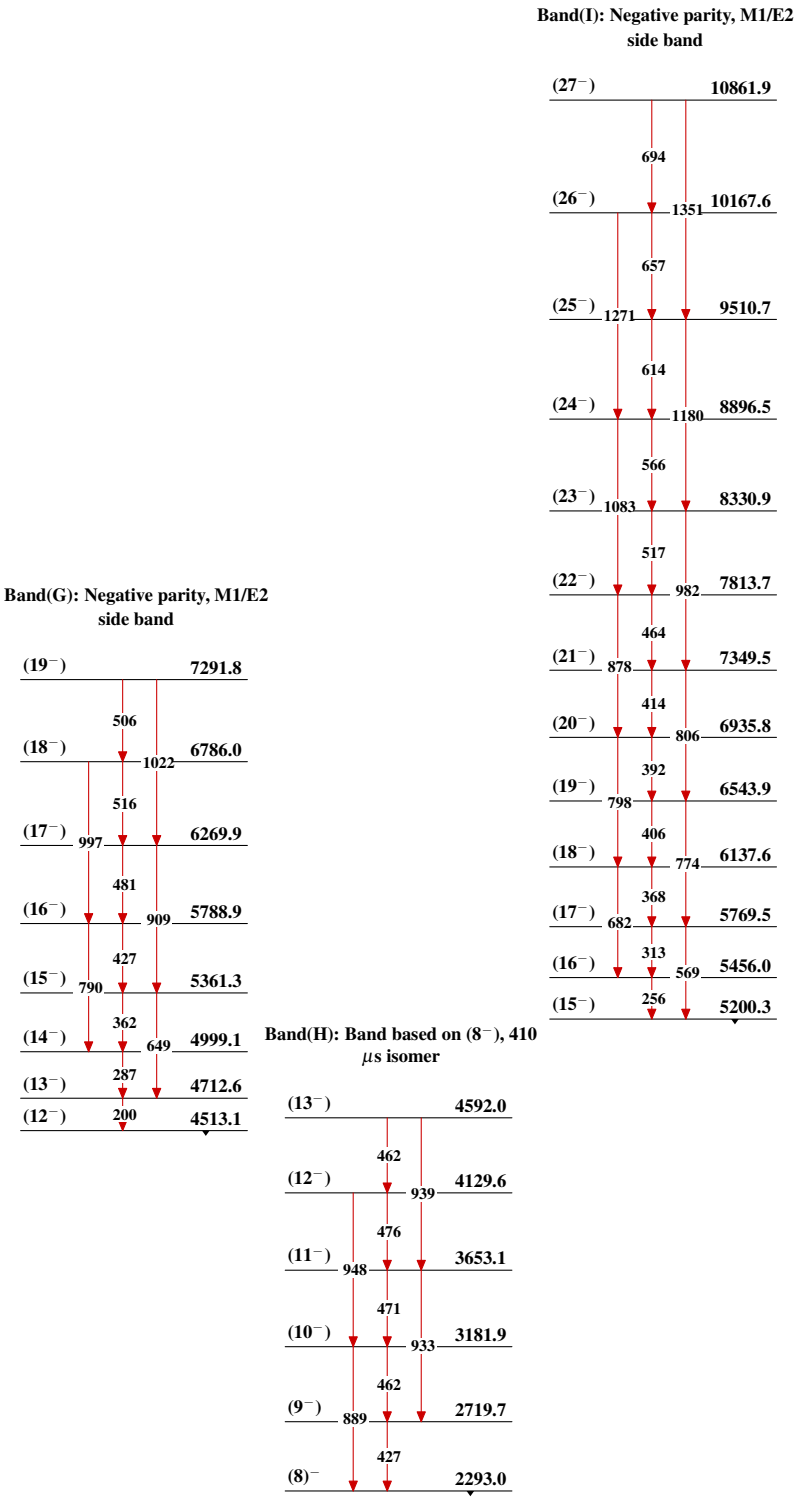


$^{134}_{60}Nd_{74}$

(HI,xnγ)


Band(A): g.s. band
(30+) 12593.6
1270
(28+) 11323.6
1234
(26+) 10089.5
(24+) 8869.7
1125
(22+) 7744.7
1034
20+ 6710.7
933
18+ 5777.7
835
16+ 4942.6
759
14+ 4183.6
701
12+ 3482.9
666
10+ 2816.9
6+ 1420.1
631
4+ 788.93
495
2+ 294.28
294
0+ 0.0
Band(B): Odd-spin negative-parity sideband
(43−) 20807
1604
(41−) 19203
1518
(39−) 17685
1430
(37−) 16255
1344
(35−) 14911
1261
(33−) 13650
1181
(31−) 12469
1103
(29−) 11366
1027
(27−) 10339.0
968
(25−) 9371.0
1043
(23−) 8328.1
970
(21−) 7358.1
870
(19−) 6488.1
777
(17−) 5711.1
763
(15−) 4948.0
772
(13−) 4175.5
722
(11−) 3453.1
612
(9−) 2840.8
500
(7−) 2340.6
385
(5−) 1956.1
Band(C): Even-spin negative-parity sideband
(30−) 12246
1197
(28−) 11049.5
1149
(26−) 9900.5
1088
(24−) 8812.5
1008
(22−) 7804.5
913
(20−) 6891.5
809
(18−) 6082.5
737
(16−) 5345.9
738
(14−) 4607.5
744
(12−) 3863.0
663
(10−) 3200.2
472
(8−) 2728.5
316
(6−) 2412.5
Band(D): Highly deformed Yrast band
(43−) 20410.7
1535
(41−) 18875.7
1448
(39−) 17427.7
1367
(37−) 16060.4
1290
(35−) 14770.5
1216
(33−) 13554.5
1144
(31−) 12410.7
1075
(29−) 11335.9
1007
(27−) 10328.5
942
(25−) 9386.3
877
(23−) 8509.7
808
(21−) 7701.6
733
(19−) 6968.2
668
(17−) 6300.3
Band(E): Highly deformed excited band
(40+) 18147.0
1345
(38+) 16801.9
1269
(36+) 15533.0
1210
(34+) 14322.9
1159
(32+) 13164.3
1106
(30+) 12058.2
1043
(28+) 11015.1
972
(26+) 10042.8
899
(24+) 9144.2
821
(22+) 8322.8
765
(20+) 7557.7
726
(18+) 6831.5
Band(F): Positive-parity sideband
(44+) 21007
1486
(42+) 19521
1426
(40+) 18095
1395
(38+) 16700
1325
(36+) 15375
1253
(34+) 14122
1184
(32+) 12938
1151
(30+) 11787
1170
(28+) 10616.6
1115
(26+) 9501.6
1048
(24+) 8453.6
986
(22+) 7467.6
936
(20+) 6531.6
902
(18+) 5629.6
853
(16+) 4776.7
748
(14+) 4028.2
592
(12+) 3436.5
385
(10+) 3051.9
585
(8+) 2467.2
556
(6+) 1910.6
597
(4+) 1312.97
(3+) 1088.7
559
(2+) 753.72

(HI,xnγ) (continued)



$^{134}_{60}Nd_{74}$