(HI,xnγ) 1997Jo03,1992Cr03,1988Li07

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 125, 201 (2015)	31-Dec-2014

2005Yu04: ^{58}Ni(^{28}Si,3pγ), E(^{28}Si)=98 MeV. Measured g-factor of positive parity levels using TMF-IMPAD method with four Compton-suppressed HPGe detectors. The authors do not state explicitly for which levels their measurements correspond to, and thus, the evaluator has not associated their measured values with particular excited states.

1997Jo03: ^{58}Ni(^{29}Si,3pnγ), E(^{29}Si)=110 MeV. Measured Eγ, Iγ, $\gamma\gamma$ coincidences, $\gamma\gamma(\theta)$ (R(DCO)) using Early Implementation Gammasphere array consisting of 33 Compton-suppressed HPGe detectors, deduced $T_{1/2}$ using Doppler Shift Attenuation method (DSAM).

1994Jo16: ^{58}Ni(^{28}Si,3pγ), E(^{28}Si)=95 MeV. Measured Eγ, Iγ, $\gamma\gamma$ coincidences using 6 Compton-suppressed Ge detectors at 90° and one at 0°, deduced $T_{1/2}$ using the Doppler Shift Attenuation method (DSAM).

1992Cr03: ^{28}Si(^{58}Ni,3pγ), E(^{58}Ni)=195 MeV. Measured Eγ, Iγ, $\gamma\gamma$ and recoil-γ coincidences using 20 Compton-suppressed HPGe detectors and the Daresbury Recoil Separator.

1990Bh03,1990Bh06:^{54}Fe(^{32}S,3pγ), E(^{32}S)=107 MeV and ^{58}Ni(^{28}Si,3pγ), E(^{28}Si)=90 MeV. Measured g-factors using IMPAD technique with four Ge detectors.

1989Cr08: ^{54}Fe(^{32}S,3pγ), E(^{32}S)=103-107 MeV. Measured Eγ, Iγ, $\gamma\gamma$ coincidences using 4 Ge detectors (one positioned at 0° to the beam direction with Compton suppression); deduced $T_{1/2}$ using recoil-distance Doppler shift (RDDS) and Doppler Shift Attenuation method (DSAM).

1988Li07: ^{58}Ni(^{28}Si,3pγ), E(^{28}Si)=80-130 MeV. Measured Eγ, Iγ, $\gamma\gamma$, γ-proton, and γ-neutron coincidences, $\gamma(\theta)$, γ-ray excitation function using a LEPS detector and two Compton-suppressed Ge(Li) detectors; deduced $T_{1/2}$ using the recoil-distance Doppler shift (RDDS) method.

^{83}Y Levels

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$[#]	Comments
0.0[&]	9/2$^+$		
62.04[c] *10*	3/2$^-$	2.85 min *2*	E(level),$T_{1/2}$: from the Adopted Levels.
145.00[a] *4*	7/2$^+$	119 ps *28*	g=+0.61 *18* (1990Bh03) $T_{1/2}$: from RDDS in 1988Li07.
166.92[d] *11*	5/2$^-$	<0.76 ns	$T_{1/2}$: from effective $T_{1/2}$=0.69 ps *7* (1988Li07), measured with RDDS, however, not corrected for side feeding.
436.53[h] *14*	(5/2)		
537.18[c] *10*	7/2$^-$	8.0 ps *28*	$T_{1/2}$: weighted average of 9.7 ps *3* (1988Li07) and 6.2 ps *28* (1989Cr08), both from RDDS.
594.98[&] *7*	13/2$^+$	5.4 ps *5*	g=+1.3 *4* (1990Bh03) $T_{1/2}$: weighted average of 5.3 ps *8* (1988Li07) and 5.4 ps *5* (1989Cr08), both from RDDS.
736.64[a] *7*	11/2$^+$	4.6 ps *10*	$T_{1/2}$: weighted average of 5.8 ps *10* (1988Li07) and 3.8 ps *8* (1989Cr08), both from RDDS.
813.99[d] *8*	9/2$^-$	3.2 ps *6*	$T_{1/2}$: weighted average of 2.8 ps *7* (1988Li07) and 3.5 ps *6* (1989Cr08), both from RDDS.
1137.4[h] *6*			
1223.68[c] *11*	11/2$^-$	0.9 ps *3*	$T_{1/2}$: weighted average of 1.2 ps *4* (1988Li07) and 0.69 ps *35* (1989Cr08), both from RDDS.
1406.50[&] *12*	17/2$^+$	0.96 ps *14*	$T_{1/2}$: weighted average of 0.9 ps *3* (1988Li07) from RDDS, 0.90 ps *14* (1989Cr08) from RDDS, and 1.04 ps *14* (1989Cr08) from DSAM.
1532.04[a] *20*	15/2$^+$	1.3 ps *3*	$T_{1/2}$: weighted average of 1.2 ps *3* (1988Li07) and 1.3 ps *3* (1989Cr08), both from RDDS.
1566.18[d] *11*	13/2$^-$	0.80 ps *28*	$T_{1/2}$: weighted average of 0.97 ps *3* (1988Li07) and 0.62 ps *28* (1989Cr08), both from RDDS.
1708.5 *3*			
1848.9[h] *5*			
2010.60[c] *12*	15/2$^-$	0.97 ps *35*	$T_{1/2}$: from RDDS in 1989Cr08. Other: 1.8 ps *3* (1988Li07) from RDDS, however, not corrected for side feeding.
2145.1 *6*			

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(HI,xnγ) 1997Jo03,1992Cr03,1988Li07 (continued)

^{83}Y Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	Comments
2371.06[&] *22*	21/2+	0.43 ps *7*	$T_{1/2}$: from DSAM in 1989Cr08. Others: 0.69 ps *14* (1988Li07) and 0.49 ps *14* (1989Cr08), both from RDDS, however, not corrected for side feeding.
2405.84[d] *13*	17/2−	<1.3 ps	$T_{1/2}$: from effective lifetime of $T_{1/2}$=1.0 ps *3* (1988Li07,1989Cr08), both from RDDS, however, not corrected for side feeding.
2429.5[a] *3*	19/2+	<0.83 ps	$T_{1/2}$: from effective lifetime of $T_{1/2}$=0.69 ps *14* (1989Cr08) from RDDS, however, not corrected for side feeding. Other: effective $T_{1/2}$= 0.9 ps *3* (1988Li07) from RDDS, also not corrected for side feeding.
2551.9[h] *11*			
2559.54[f] *16*	17/2−	46 ps *4*	g=+0.29 *6* (1990Bh06) $T_{1/2}$: weighted average of 43 ps *13* (1988Li07) and 46 ps *4* (1989Cr08), both from RDDS.
2822.77[c] *20*	(19/2−)		
2887.83[g] *19*	(19/2−)	<3.4 ps	$T_{1/2}$: from effective $T_{1/2}$=3.1 ps *3* (1989Cr08) from RDDS, however, not corrected for sidefeeding. Other: effective $T_{1/2}$=4.8 ps *3* (1988Li07) from RDDS also not corrected for sidefeeding.
2937.6 *6*			
3308.13[f] *21*	(21/2−)		
3314.54[d] *16*	(21/2−)		
3397.1[a] *4*	(23/2+)	0.43 ps *+11−9*	
3420.1[h] *14*			
3450.6[&] *3*	(25/2+)		
3731.0[c] *7*	(23/2−)		
3830.33[g] *22*	(23/2−)	0.91[@] ps *+23−25*	
3916.9 *6*			
4177.2 *8*			
4340.6[d] *3*	(25/2−)	0.34[@] ps *+8−4*	
4385.8[f] *5*	(25/2−)	0.48[@] ps *+12−18*	
4421.9 *5*	(27/2+)		
4472.8[h] *18*			
4487.9[a] *4*	(27/2+)	0.20 ps *+6−8*	
4643.6[&] *4*	(29/2+)	0.19 ps *+4−3*	$T_{1/2}$: other: 0.25 ps *+3−4* (1994Jo16) from DSAM.
4796.0[c] *8*	(27/2−)		
4992.3[g] *7*	(27/2−)		
5176.6 *6*			
5244.0 *18*			
5346.6 *11*			
5502.3[d] *9*	(29/2−)	0.19[@] ps *+3−6*	
5562.3[f] *11*	(29/2−)		
5564.8[h] *21*			
5668.6 *12*			
5747.5[a] *8*	(31/2+)	0.20 ps *+8−7*	
5950.0[c] *15*	(31/2−)		
5983.5[&] *6*	(33/2+)	0.22 ps *+9−7*	$T_{1/2}$: other: 0.13 ps *+3−4* (1994Jo16) from DSAM.
6334.3[g] *21*	(31/2−)	<0.26[@] ps	$T_{1/2}$: from effective $T_{1/2}$=0.26 ps, not corrected for side feeding.
6676.5[d] *14*	(33/2−)	<0.46[@] ps	$T_{1/2}$: from effective $T_{1/2}$=0.46 ps, not corrected for side feeding.
6780.9[e] *11*	(33/2−)		
6782.3[f] *15*	(33/2−)	0.13[@] ps *+6−3*	
7179.0[a] *10*	(35/2+)	<0.24 ps	$T_{1/2}$: from effective $T_{1/2}$=0.24 ps, not corrected for side feeding.
7238.2[c] *20*	(35/2−)		
7450.8 *16*			

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(HI,xnγ) 1997Jo03,1992Cr03,1988Li07 (continued)

^{83}Y Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	Comments
7468.3[&] *9*	(37/2+)	0.05 ps *+3−2*	$T_{1/2}$: other: <0.07 ps (1994Jo16) from DSAM.
7819[g] *3*	(35/2−)		
7918.7[d] *18*	(37/2−)		
8070.4[f] *20*	(37/2−)	<0.28[@] ps	$T_{1/2}$: from effective $T_{1/2}$=0.28 ps, not corrected for side feeding.
8108.9[e] *15*	(37/2−)		
8442.2 *12*			
8708.8[c] *25*	(39/2−)		
8712.9[a] *14*	(39/2+)		
9074.9[&] *19*	(41/2+)	0.014 ps *+55−7*	$T_{1/2}$: other: <0.17 ps from DSAM in 1994Jo16, not corrected for side feeding.
9331.9[d] *21*	(41/2−)		
9598.0 *14*			
9639.9[e] *18*	(41/2−)		
10001.4 *14*			
10358.9[a] *22*	(43/2+)		
10396 *3*	(43/2−)		
10452 *3*	(43/2−)		
10824[&] *3*	(45/2+)	0.014 ps *+55−7*	
10926.5[d] *23*	(45/2−)		
11266.9?[e] *20*	(45/2−)		
12243.8[a] *24*	(47/2+)		
12726[d] *3*	(49/2−)		
12787[&] *3*	(49/2+)	<0.04 ps	$T_{1/2}$: given as $T_{1/2}$=0.007 ps *+35−7* in 1997Jo03.
13022 *3*	(47/2+)		
13035[b] *3*	(47/2+)		
14028[a] *3*	(51/2+)		
14767[d] *3*	(53/2−)		E(level): Level energy given as 14770 in Figure 2 and 14779 in Table II of 1997Jo03.
14881[&] *3*	(53/2+)		
14947[b] *3*	(51/2+)		
17101[b] *3*	(55/2+)		
19466[b] *3*	(59/2+)		

[†] From a least-squares fit to Eγ, by evaluator.
[‡] From the Adopted Levels.
[#] From DSAM in 1997Jo03, except where noted.
[@] From DSAM in 1994Jo16.
[&] Band(A): [422]5/2+ band, α=+1/2.
[a] Band(B): [422]5/2+ band, α=−1/2.
[b] Band(C): Band based on (47/2+), 13035-keV level.
[c] Band(D): [301]3/2− band, α=−1/2.
[d] Band(E): [301]3/2− band, α=+1/2.
[e] Band(F): Band based on (33/2−), 6781-keV level.
[f] Band(G): Band based on the 17/2-, 2560-keV level, α=+1/2.
[g] Band(H): Band based on the 17/2-, 2560-keV level, α=−1/2.
[h] Band(I): γ-ray sequence. Observed only in 1992Cr03.

(HI,xnγ) 1997Jo03,1992Cr03,1988Li07 (continued)

$\gamma(^{83}Y)$

E_γ[†]	I_γ[‡]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[#]	δ	Comments
(62.0)		62.04	3/2⁻	0.0	9/2⁺			
100.8[&] 1	3.0 3	537.18	7/2⁻	436.53	(5/2)			
104.97 5	79 6	166.92	5/2⁻	62.04	3/2⁻	D+Q		Mult.: A_2=−0.12 2, A_4=+0.02 4 (1988Li07).
141.67 5	13 1	736.64	11/2⁺	594.98	13/2⁺	D+Q	+0.12 8	Mult.,δ: A_2=−0.25 8, A_4=−0.20 10 (1988Li07).
145.00 4	160 12	145.00	7/2⁺	0.0	9/2⁺	D+Q	+0.13 4	Mult.,δ: A_2=−0.25 2, A_4=+0.04 3 (1988Li07).
153.7[&] 2	7 1	2559.54	17/2⁻	2405.84	17/2⁻			
167[a@c]		166.92	5/2⁻	0.0	9/2⁺			E_γ: from 1997Jo03 only, not included in Adopted Gammas.
270.5[&] 3	6 1	436.53	(5/2)	166.92	5/2⁻			
276.9 1	39 3	813.99	9/2⁻	537.18	7/2⁻	D+Q	+0.17 4	Mult.,δ: A_2=+0.00 4, A_4=+0.04 4 (1988Li07).
302.0[&] 3	8 1	1708.5		1406.50	17/2⁺			
328.3 1	100 5	2887.83	(19/2⁻)	2559.54	17/2⁻	D+Q	−0.24 6	Mult.,δ: A_2=−0.51 3, A_4=+0.08 3 (1988Li07).
342.5 1	31 3	1566.18	13/2⁻	1223.68	11/2⁻	D+Q	+0.06 6	Mult.,δ: A_2=−0.12 7, A_4=+0.07 7 (1988Li07).
370.3 1	78 69	537.18	7/2⁻	166.92	5/2⁻	D+Q	+0.46 7	Mult.,δ: A_2=+0.33 3, A_4=+0.00 4 (1988Li07).
375.2[&] 4	16 1	436.53	(5/2)	62.04	3/2⁻			
392.2 2	8 1	537.18	7/2⁻	145.00	7/2⁺			Mult.: A_2=+0.21 10, A_4=+0.01 4 (1988Li07).
395.2 1	17 2	2405.84	17/2⁻	2010.60	15/2⁻	D(+Q)	0.00 8	Mult.,δ: A_2=−0.20 10, A_4=+0.18 10 (1988Li07).
409.7 1	26 2	1223.68	11/2⁻	813.99	9/2⁻	D+Q	+0.25 7	Mult.,δ: A_2=+0.13 7, A_4=−0.07 7 (1988Li07).
417.0[&] 4	13 1	2822.77	(19/2⁻)	2405.84	17/2⁻			
420.3 1	62 5	3308.13	(21/2⁻)	2887.83	(19/2⁻)	D+Q	−1.8 4	Mult.,δ: A_2=−0.69 4, A_4=+0.17 4 (1988Li07).
444.4 1	18 2	2010.60	15/2⁻	1566.18	13/2⁻	D(+Q)	+0.06 8	Mult.,δ: A_2=−0.13 10, A_4=+0.12 10 (1988Li07).
466.3[&] 5	4 1	3916.9		3450.6	(25/2⁺)			
475.1 1	44 4	537.18	7/2⁻	62.04	3/2⁻	Q		Mult.: A_2=+0.36 4, A_4=−0.04 4 (1988Li07).
491.6[&] 5	13	3314.54	(21/2⁻)	2822.77	(19/2⁻)			
492[&] 1	7 3	5668.6		5176.6				
522.2 1	43 4	3830.33	(23/2⁻)	3308.13	(21/2⁻)	D+Q	−0.8 2	Mult.,δ: A_2=−0.93 7, A_4=+0.32 7 (1988Li07).
533.0[&] 5	18 2	5176.6		4643.6	(29/2⁺)			
538[@ac]		537.18	7/2⁻	0.0	9/2⁺			E_γ: from 1997Jo03 only, not included in Adopted Gammas.
548.9 2	27 2	2559.54	17/2⁻	2010.60	15/2⁻	D+Q	−5.0 15	Mult.,δ: A_2=−0.35 7, A_4=+0.14 7 (1988Li07).
555.7[&] 6	17 2	4385.8	(25/2⁻)	3830.33	(23/2⁻)			E_γ: other: 555 1 (1988Li07).
566.6[&] 6	12 1	2937.6		2371.06	21/2⁺			
591.7 2	149 14	736.64	11/2⁺	145.00	7/2⁺	Q		Mult.: A_2=+0.31 3, A_4=−0.1 5 (1988Li07).
595.0 1	962 70	594.98	13/2⁺	0.0	9/2⁺	Q		Mult.: A_2=+0.28 2, A_4=−0.03 2 (1988Li07).
600[&] 1		1137.4		537.18	7/2⁻			
606.6[&] 6	10 1	4992.3	(27/2⁻)	4385.8	(25/2⁻)			
613.1[&] 6	26 2	2145.1		1532.04	15/2⁺			
625.6[&] 6	11 1	1848.9		1223.68	11/2⁻			
647.0 1	106 8	813.99	9/2⁻	166.92	5/2⁻	Q		Mult.,δ: A_2=+0.28 3, A_4=−0.05 3 (1988Li07).
669.0 1	31 3	813.99	9/2⁻	145.00	7/2⁺	D		Mult.: A_2=−0.19 5, A_4=+0.00 5 (1988Li07).
686.5 2	95 7	1223.68	11/2⁻	537.18	7/2⁻	Q		Mult.: A_2=+0.30 3, A_4=−0.10 3 (1988Li07).
700[&] 1		1137.4		436.53	(5/2)			
703[b&] 1	50[b]	2551.9		1848.9				
703[b&] 1	12[b]	5346.6		4643.6	(29/2⁺)			
710.9[&] 7	33 3	1848.9		1137.4				
726.6[&] 7	27 2	4177.2		3450.6	(25/2⁺)			
736.6 1	85 7	736.64	11/2⁺	0.0	9/2⁺	D+Q	+1.2 4	Mult.,δ: A_2=+0.60 3, A_4=+0.14 3 (1988Li07).
752.2 1	187 14	1566.18	13/2⁻	813.99	9/2⁻	Q		Mult.: A_2=+0.27 3, A_4=−0.11 3 (1988Li07).

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(HI,xnγ) 1997Jo03,1992Cr03,1988Li07 (continued)

γ(^{83}Y) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
774.3[&] *8*	33 *3*	7450.8		6676.5	(33/2⁻)		
786.9 *1*	102 *8*	2010.60	15/2⁻	1223.68	11/2⁻	Q	Mult.: A_2=+0.43 *5*, A_4=−0.05 *5* (1988Li07).
795.4 *2*	183 *14*	1532.04	15/2⁺	736.64	11/2⁺	Q	Mult.: A_2=+0.32 *2*, A_4=−0.06 *2* (1988Li07).
811.5 *1*	800 *70*	1406.50	17/2⁺	594.98	13/2⁺	Q	Mult.: A_2=+0.29 *2*, A_4=−0.10 *3* (1988Li07).
812.2 *3*	100 *11*	2822.77	(19/2⁻)	2010.60	15/2⁻		
813.9 *2*	47 *6*	813.99	9/2⁻	0.0	9/2⁺		A_2=+0.40 *8*, A_4=−0.01 *8* (1988Li07).
830.1[&] *8*	34 *3*	1566.18	13/2⁻	736.64	11/2⁺		
839.7 *1*	110 *9*	2405.84	17/2⁻	1566.18	13/2⁻	Q	Mult.: A_2=+0.31 *3*, A_4=−0.15 *3* (1988Li07).
868.2[&] *9*	56 *5*	3420.1		2551.9			
897.5 *3*	132 *10*	2429.5	19/2⁺	1532.04	15/2⁺	Q	Mult.: A_2=+0.22 *3*, A_4=−0.08 *3* (1988Li07).
908.1[&] *9*	120 *20*	3731.0	(23/2⁻)	2822.77	(19/2⁻)		
908.7 *1*	100 *15*	3314.54	(21/2⁻)	2405.84	17/2⁻	Q	I_γ: other: 139 *4* (1997Jo03). Mult.: A_2=+0.20 *3*, A_4=−0.05 *3* (1988Li07).
937.4[@a]		1532.04	15/2⁺	594.98	13/2⁺		
942.5 *2*	35 *3*	3830.33	(23/2⁻)	2887.83	(19/2⁻)		
964.5 *2*	626[@] *26*	2371.06	21/2⁺	1406.50	17/2⁺	Q	I_γ: other: 618 *60* (1992Cr03). Mult.: R_{DCO}=1.05 *7* (1997Jo03), A_2=+0.14 *2*, A_4=−0.08 *2* (1988Li07).
967.7 *2*	100 *12*	3397.1	(23/2⁺)	2429.5	19/2⁺		
993.4 *2*	74 *6*	2559.54	17/2⁻	1566.18	13/2⁻	Q	Mult.: A_2=+0.33 *3*, A_4=−0.05 *3* (1988Li07).
1024.0[&]	12[@] *5*	2429.5	19/2⁺	1406.50	17/2⁺		
1024.8 *3*		4421.9	(27/2⁺)	3397.1	(23/2⁺)		
1025.2[&]	8.7[@]	3397.1	(23/2⁺)	2371.06	21/2⁺		
1026.0 *3*	119 *9*	4340.6	(25/2⁻)	3314.54	(21/2⁻)		I_γ: other: 119 *11* (1997Jo03).
1037.3[&] *3*	12[@] *4*	4487.9	(27/2⁺)	3450.6	(25/2⁺)	D	I_γ: other: 30 *3* (1992Cr03). Mult.: R_{DCO}=0.54 *13* (1997Jo03).
1052.7[&] *11*	42 *4*	4472.8		3420.1			
1065.3[&] *11*	136 *11*	4796.0	(27/2⁻)	3731.0	(23/2⁻)		
1077.6[&] *11*	28 *4*	4385.8	(25/2⁻)	3308.13	(21/2⁻)		E_γ: other: 1178 *1* (1988Li07).
1079.5 *2*	433[@] *22*	3450.6	(25/2⁺)	2371.06	21/2⁺	Q	I_γ: other: 437 *35* (1992Cr03). Mult.: R_{DCO}=0.97 *8* (1997Jo03).
1091.7[&] *11*	68[@] *8*	4487.9	(27/2⁺)	3397.1	(23/2⁺)		I_γ: other: 62 *7* (1992Cr03).
1092[&] *1*	20	5564.8		4472.8			
1103.1[@]	5[@] *1*	5747.5	(31/2⁺)	4643.6	(29/2⁺)		
1113.0[&] *11*	46 *4*	1708.5		594.98	13/2⁺		
1154.0[&] *12*	76 *7*	5950.0	(31/2⁻)	4796.0	(27/2⁻)		
1161.3[@]	99[@] *10*	5502.3	(29/2⁻)	4340.6	(25/2⁻)		I_γ: other: 115 (1992Cr03).
1161.7[&] *12*	31 *4*	4992.3	(27/2⁻)	3830.33	(23/2⁻)		
1174.2[@]	43[@] *7*	6676.5	(33/2⁻)	5502.3	(29/2⁻)		E_γ: other: 1176.5 *12* (1992Cr03). I_γ: other: 72 (1992Cr03).
1177.0[&] *12*	17 *4*	5562.3	(29/2⁻)	4385.8	(25/2⁻)		
1192.9 *3*	284[@] *18*	4643.6	(29/2⁺)	3450.6	(25/2⁺)	Q	I_γ: other: 278 *21* (1992Cr03). Mult.: R_{DCO}=1.04 *11* (1997Jo03).
1195.7[@]		7179.0	(35/2⁺)	5983.5	(33/2⁺)		
1219[@a]		6780.9	(33/2⁻)	5562.3	(29/2⁻)		
1220[&] *1*	<11	6782.3	(33/2⁻)	5562.3	(29/2⁻)		
1224[&] *1*	51 *5*	1223.68	11/2⁻	0.0	9/2⁺		
1242.2[&] *12*	24 *2*	7918.7	(37/2⁻)	6676.5	(33/2⁻)		E_γ: other: 1244.7 (1997Jo03). I_γ: other: 26 *6* (1997Jo03).

Continued on next page (footnotes at end of table)

(HI,xnγ) 1997Jo03,1992Cr03,1988Li07 (continued)

γ(^{83}Y) (continued)

Eγ[†]	Iγ[‡]	Ei(level)	J^{π}_{i}	Ef	J^{π}_{f}	Mult.[#]	Comments
1260.5[&] *13*	59[@] *8*	5747.5	(31/2+)	4487.9	(27/2+)		Iγ: other: 70 *6* (1992Cr03).
1278.2[@]	29[@] *6*	6780.9	(33/2−)	5502.3	(29/2−)		Iγ: other: 33 (1992Cr03).
1288.1[&] *13*	<13	8070.4	(37/2−)	6782.3	(33/2−)		
1288.2[&] *13*	62 *5*	7238.2	(35/2−)	5950.0	(31/2−)		
1328.0[@]	17[@] *5*	8108.9	(37/2−)	6780.9	(33/2−)		
1340.0 *5*	171[@] *14*	5983.5	(33/2+)	4643.6	(29/2+)	Q	Iγ: other: 169 *13* (1992Cr03). Mult.: R_{DCO}=0.94 *8* (1997Jo03).
1342[&] *2*	12 *5*	6334.3	(31/2−)	4992.3	(27/2−)		
1345[@a]		4796.0	(27/2−)	3450.6	(25/2+)		
1361.0[&] *14*	28 *3*	3731.0	(23/2−)	2371.06	21/2+		
1413.2[@]	22[@] *5*	9331.9	(41/2−)	7918.7	(37/2−)		Eγ: other: 1416 (1992Cr03). Iγ: other: 15 (1992Cr03).
1415[&] *2*	82 *12*	2010.60	15/2−	594.98	13/2+		
1416.1 *3*	83 *15*	2822.77	(19/2−)	1406.50	17/2+		
1430.9[&] *14*	40[@] *8*	7179.0	(35/2+)	5747.5	(31/2+)		Iγ: other: 55 *5* (1992Cr03).
1470.6[&] *15*	33 *3*	8708.8	(39/2−)	7238.2	(35/2−)		
1484.8 *7*	100 *8*	7468.3	(37/2+)	5983.5	(33/2+)	Q	Mult.: R_{DCO}=1.04 *11* (1997Jo03).
1485[&] *2*		7819	(35/2−)	6334.3	(31/2−)		
1531.0[&] *15*	94	2937.6		1406.50	17/2+		
1531[@]	5[@] *2*	9639.9	(41/2−)	8108.9	(37/2−)		
1533.9[@]	38[@] *3*	8712.9	(39/2+)	7179.0	(35/2+)		
1594.6[@]	10[@] *4*	10926.5	(45/2−)	9331.9	(41/2−)		
1606.6[&] *16*	68[@] *9*	9074.9	(41/2+)	7468.3	(37/2+)	Q	Iγ: other: 71 *7* (1992Cr03). Mult.: R_{DCO}=1.10 *15* (1997Jo03).
1627[@c]		11266.9?	(45/2−)	9639.9	(41/2−)		
1646.0[&] *17*	19[@] *2*	10358.9	(43/2+)	8712.9	(39/2+)		Iγ: other: 12 *4* (1997Jo03).
1687[@a]		10396	(43/2−)	8708.8	(39/2−)		
1743[@a]		10452	(43/2−)	8708.8	(39/2−)		
1749.0[&] *18*	23[@] *2*	10824	(45/2+)	9074.9	(41/2+)	Q	Eγ: other: 1753.9 (1997Jo03). Iγ: other: 23 *5* (1997Jo03). Mult.: R_{DCO}=1.15 *30* (1997Jo03).
1784.4[@]	9[@] *4*	14028	(51/2+)	12243.8	(47/2+)		
1793.4[&] *18*	20 *2*	5244.0		3450.6	(25/2+)		
1799.2[@]	2[@] *1*	12726	(49/2−)	10926.5	(45/2−)		
1884.9[@]	10[@] *4*	12243.8	(47/2+)	10358.9	(43/2+)		
1913[@]	1.0[@] *9*	14947	(51/2+)	13035	(47/2+)		
1958.6[&] *20*	9 *1*	12787	(49/2+)	10824	(45/2+)		Eγ: other: 1965.7 (1997Jo03). Iγ: other: 6 *3* (1997Jo03).
2041[@]	2[@] *1*	14767	(53/2−)	12726	(49/2−)		
2093.9[@]	1.0[@] *9*	14881	(53/2+)	12787	(49/2+)		
2129.6[@]	2.8[@] *18*	9598.0		7468.3	(37/2+)		
2154[@]	1.3[@] *12*	17101	(55/2+)	14947	(51/2+)		
2159[@]	2.0[@] *15*	14947	(51/2+)	12787	(49/2+)		
2198[@]	2[@] *1*	13022	(47/2+)	10824	(45/2+)	D	Mult.: R_{DCO}=0.37 *22* (1997Jo03).
2212[@]	1.8[@] *14*	13035	(47/2+)	10824	(45/2+)	(D)	Mult.: R_{DCO}=0.8 *4* (1997Jo03).
2365[@]	1.0[@] *9*	19466	(59/2+)	17101	(55/2+)		

Continued on next page (footnotes at end of table)

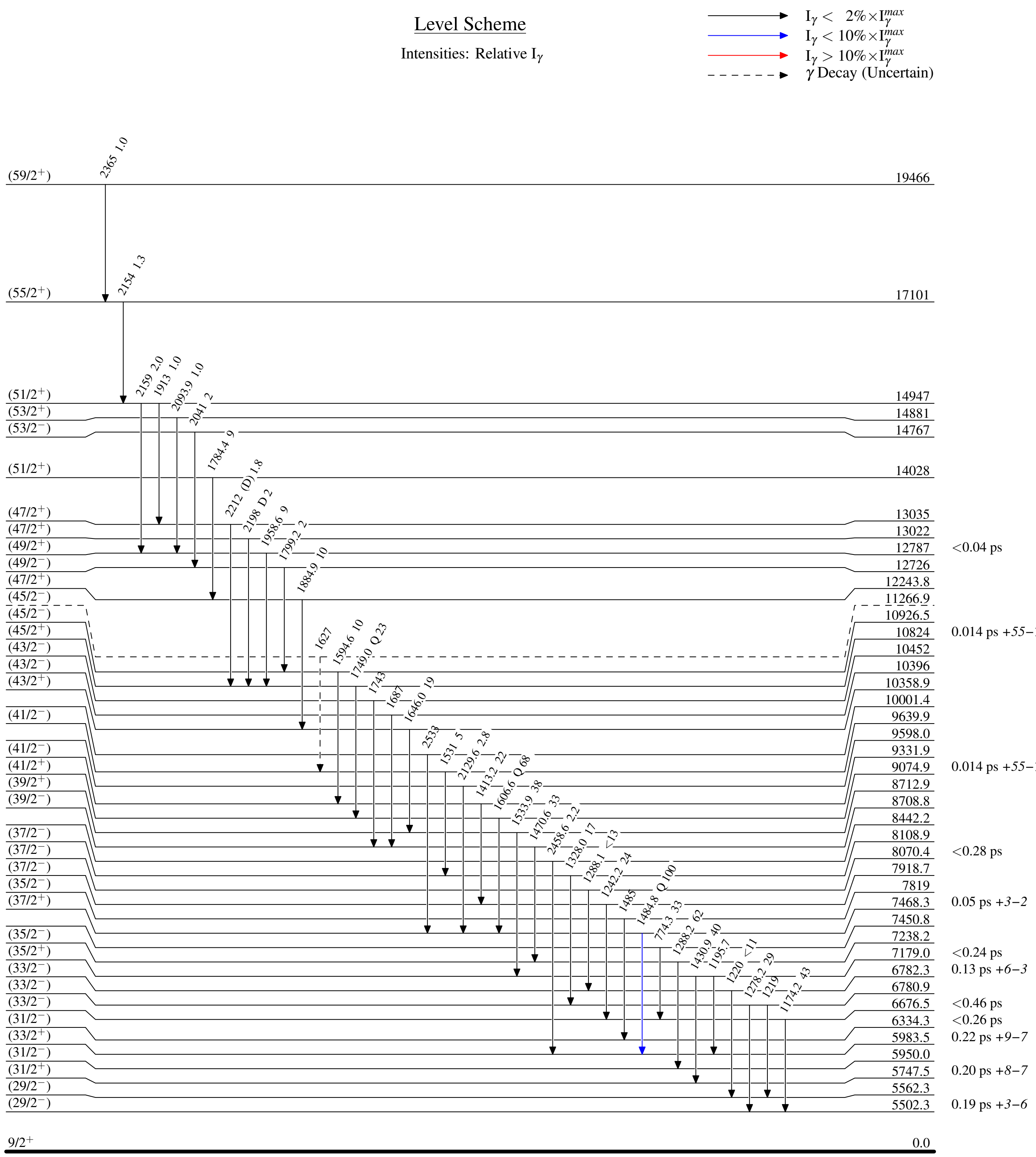
(HI,xnγ) 1997Jo03,1992Cr03,1988Li07 (continued)

$\gamma(^{83}Y)$ (continued)

E_γ [†]	I_γ [‡]	E_i(level)	J^π_i	E_f	J^π_f
2458.6 [@]	2.2 [@] *19*	8442.2		5983.5	$(33/2^+)$
2533 [@]		10001.4		7468.3	$(37/2^+)$

[†] From 1988Li07, except where noted.
[‡] From 1992Cr03, except where noted.
[#] From $\gamma(\theta)$ in 1988Li07 and R_{DCO} in 1997Jo03, as noted in the comments.
[@] From 1997Jo03.
[&] From 1992Cr03.
[a] Given in Figure 2 of 1997Jo03, but not included in their Table I or II.
[b] Multiply placed with intensity suitably divided.
[c] Placement of transition in the level scheme is uncertain.

(HI,xnγ) 1997Jo03,1992Cr03,1988Li07



$^{83}_{39}Y_{44}$

(HI,xnγ) 1997Jo03,1992Cr03,1988Li07

Level Scheme (continued)

Intensities: Relative I_γ

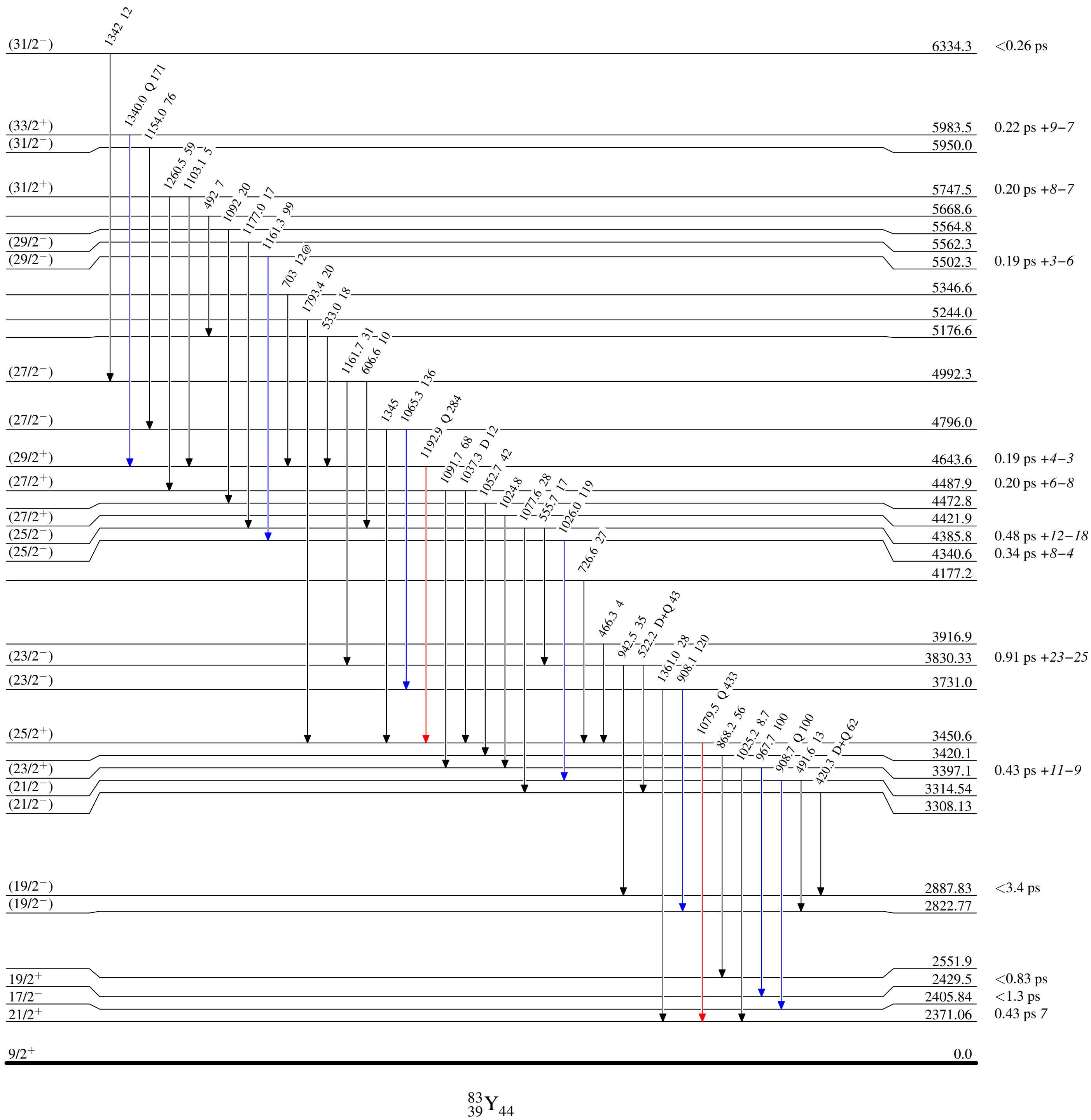
@ Multiply placed: intensity suitably divided

Legend

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

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

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



(HI,xnγ) 1997Jo03,1992Cr03,1988Li07

Level Scheme (continued)

Intensities: Relative I_γ

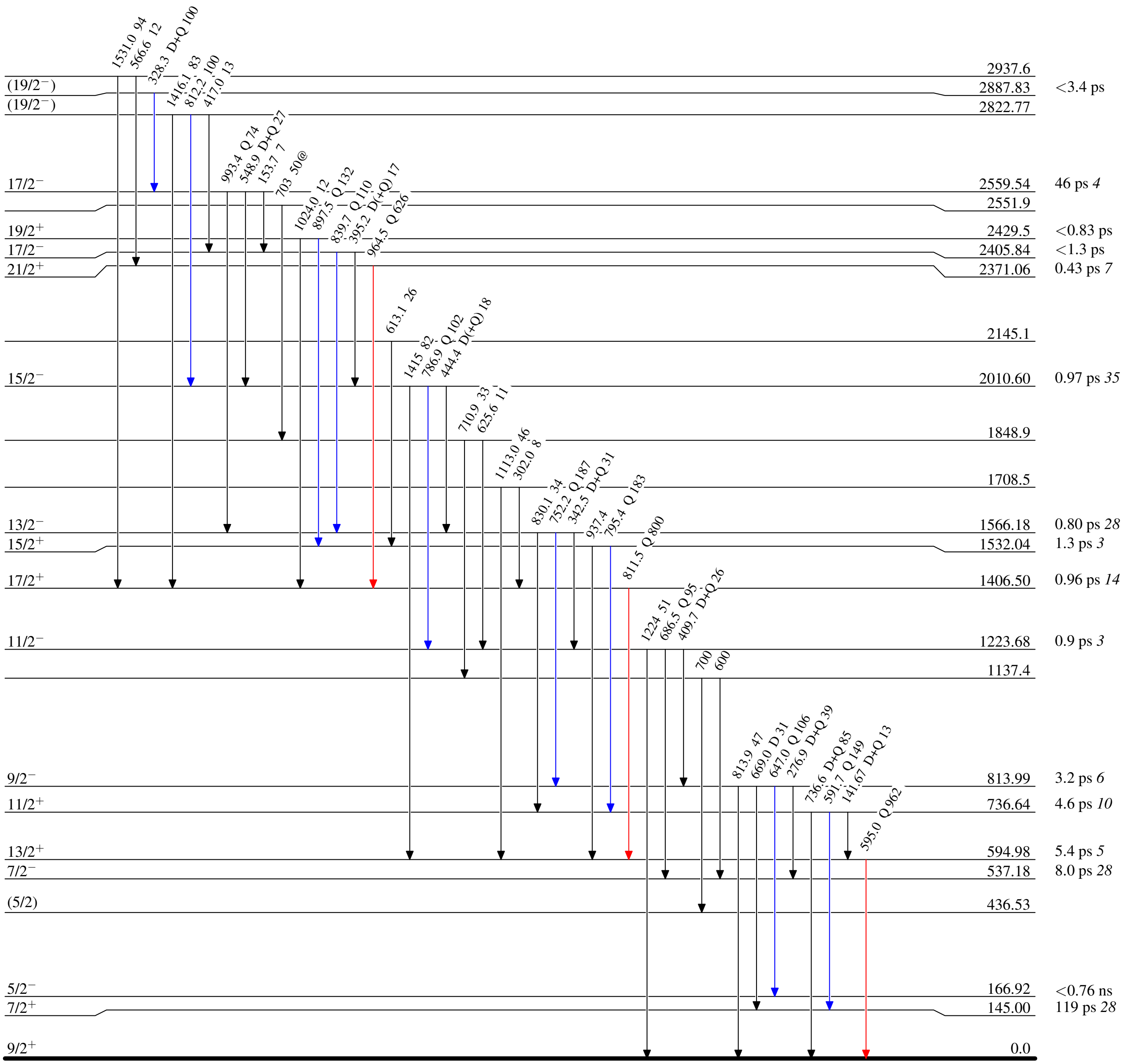
@ Multiply placed: intensity suitably divided

Legend

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

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

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



$^{83}_{39}Y_{44}$

(HI,xnγ) 1997Jo03,1992Cr03,1988Li07

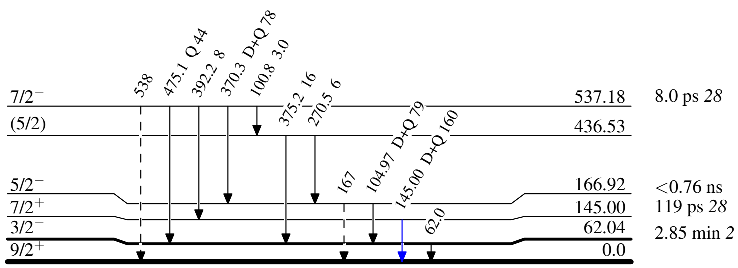
Level Scheme (continued)

Intensities: Relative I_γ

@ Multiply placed: intensity suitably divided

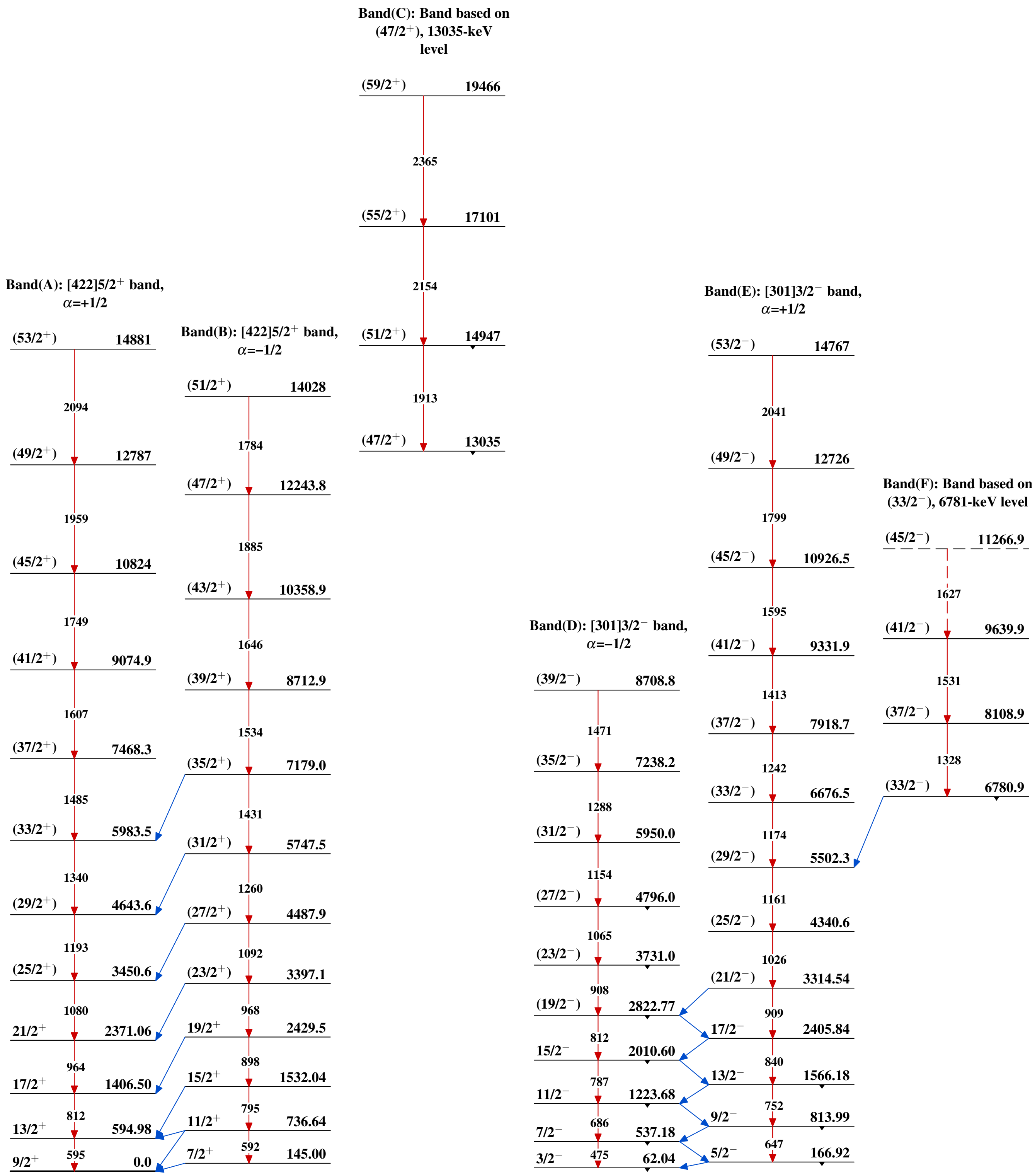
Legend

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



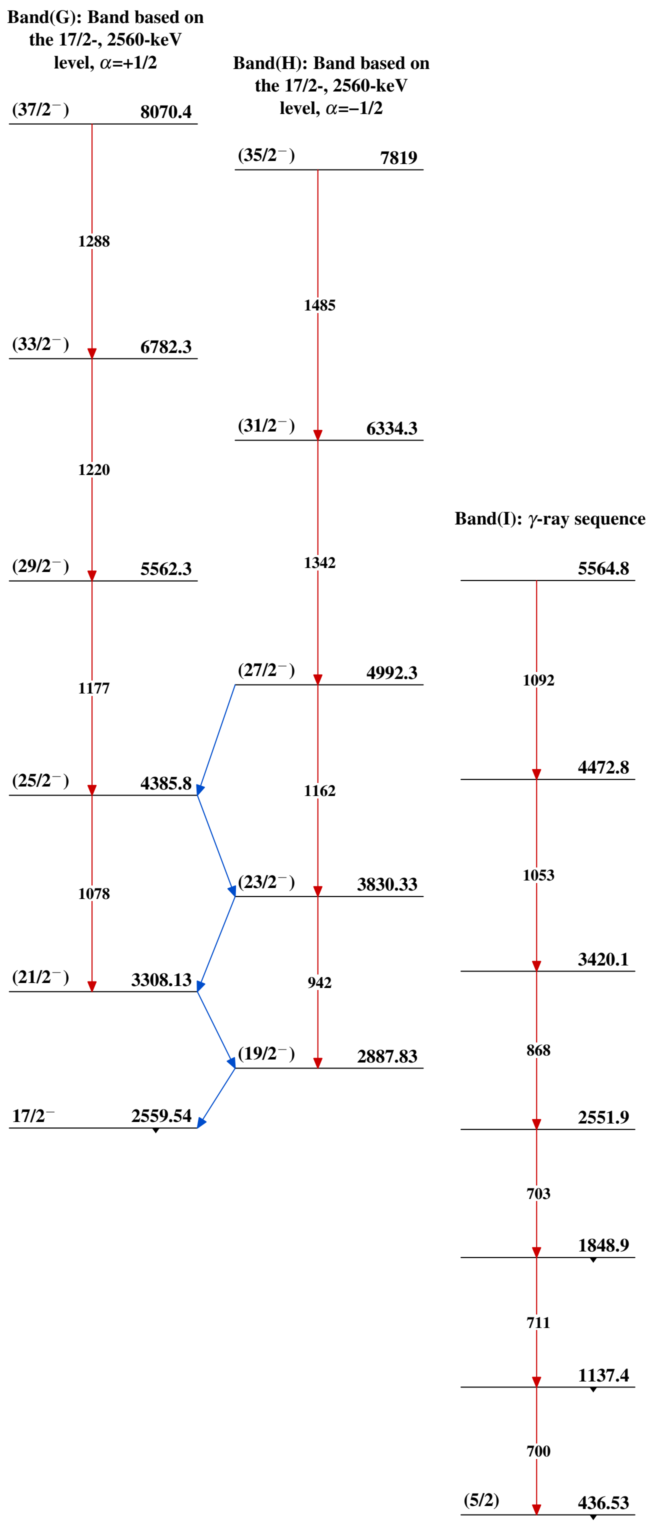
$^{83}_{39}Y_{44}$

(HI,xnγ) 1997Jo03,1992Cr03,1988Li07



$^{83}_{39}Y_{44}$

(HI,xnγ) 1997Jo03,1992Cr03,1988Li07 (continued)



$^{83}_{39}Y_{44}$