

(HI,xn γ) 1994To05,1992Go20,1986Lo11

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	K. Kitao, Y. Tendow and A. Hashizume		NDS 96, 241 (2002)	1-Dec-2001

1994To05,1993Ju03: $^{92}\text{Mo}(^{32}\text{S},4\text{p})$ E=145 MeV, $^{106}\text{Pd}(^{18}\text{O},4\text{n})$ E=75 MeV; Compton-suppressed Ge, G. $\gamma(\theta)$, $\gamma\gamma$, DCO ratio.
 1992Go20: $^{107}\text{Ag}(^{16}\text{O},\text{p}2\text{n}\gamma)$ E=80 MeV, $^{108}\text{Pd}(^{16}\text{O},4\text{n}\gamma)$ E=84 MeV; Compton-suppressed Ge, γ , $\gamma\gamma$; DCO ratio.
 1987Ro21: $^{106}\text{Cd}(^{18}\text{O},4\text{n}\gamma)$ E=90 MeV; Compton-suppressed Ge, γ , $\gamma\gamma$, $\gamma(\theta)$, $\gamma(\text{pol})$.
 1986Lo11: $^{110}\text{Cd}(^{13}\text{C},3\text{n}\gamma)$, $^{111}\text{Cd}(^{12}\text{C},3\text{n}\gamma)$ E=46-58 MeV; semi, γ , $\gamma\gamma$, excit.
 2000Pa63: $^{111}\text{Cd}(^{12}\text{C},3\text{n}\gamma)$ E=56 MeV, Compton-suppressed Ge; γ , DSA.
 1982Ch01: $^{110}\text{Cd}(^{13}\text{C},3\text{n}\gamma)$ E=52 MeV; GeI γ , $\gamma\gamma$, $\gamma(\theta)$.
 1980KaZT: $^{109}\text{Ag}(^{14}\text{N},3\text{n}\gamma)$ E=60 MeV; GeI γ ; $T_{1/2}$ via RDM.
 1976Co16: $^{106}\text{Cd}(^{16}\text{O},2\text{p}\gamma)$ E=64.5 MeV; γ , p, a, $\gamma\gamma$, $\alpha\gamma$, $n\gamma$ coin, $p\gamma$ coin.
 1972Ku14: $^{108}\text{Pd}(^{16}\text{O},4\text{n}\gamma)$ E=80 MeV; semi γ ; $T_{1/2}$ via RDM.
 Other: 1967Cl02, 1968HaZT, 1972In05.

^{120}Xe Levels

The level scheme is that proposed by 1994To05. Levels at 6206, 7249 and 8435 keV proposed by 1992Go20 are also adopted. However, levels at 867 and 908 keV proposed by 1982Ch01, at 7836 keV by 1987Ro21, and at 6876, 7386, 7926 and 10239 keV by 1992Go20 are not adopted. Band assignments are those proposed by 1994To05. In general, these assignments agree with those of other authors, except for a negative parity band built on the 2545-keV state. The band corresponds to the positive-parity band built on the 2630-keV state proposed by 1987Ro21 and 1992Go20. This spin-change is based on DCO ratios of interband transitions.

E(level) [†]	J π [‡]	$T_{1/2}$ [#]	E(level) [†]	J π [‡]	$T_{1/2}$ [#]
0.0 ^f	0 ⁺	40 min 1	3149.49 [@] 21	9 ⁻	
322.60 ^f 8	2 ⁺	45.7 ps 20	3173.99 ^e 22	9 ⁺	0.52 ps 7
796.10 ^f 11	4 ⁺	5.8 ps 4	3280.8 ^d 8	(9 ⁻)	
876.10 ^e 8	2 ⁺		3326.3 ^b 8	10 ⁺	
1271.60 ^e 10	3 ⁺		3383.50 [@] 22	10 ⁻	
1397.28 ^f 16	6 ⁺	1.73 ps 25	3535.3 ^a 8	10 ⁻	
1401.49 ^e 11	4 ⁺		3575.5 ^d 9	(10 ⁻)	
1817.00 ^e 12	5 ⁺		3591.58 ^{&} 24	11 ⁻	
1985.89 ^e 14	6 ⁺		3648.59 [@] 22	11 ⁻	
2072.7 8	5		3676.39 ^f 24	12 ⁺	0.58 ps 9
2099.08 ^f 19	8 ⁺	0.97 ps 17	3852.6 ^d 11	(11 ⁻)	
2461.16 ^e 19	7 ⁺	0.62 ps +35-14	3918.6 ^b 6	12 ⁺	1.2 ps +10-3
2495.1 ^{&} 6	7 ⁻		3933.8 ^e 11	11 ⁺	0.55 ps +21-14
2544.8 ^a 7	6 ⁻		3956.70 [@] 24	12 ⁻	
2653.7 ^e 8	8 ⁺		4157.6 ^c 8	(12 ⁺)	0.58 ps +14-10
2669.6 8			4167.4 ^a 13	12 ⁻	
2728.6 [@] 5	6 ⁻		4212.7 ^d 9	(12 ⁻)	
2830.36 [@] 19	7 ⁻		4292.80 [@] 25	13 ⁻	
2872.58 ^f 22	10 ⁺	0.63 ps 10	4306.4 ^{&} 7	13 ⁻	
2912.1 8			4458.8 ^f 3	14 ⁺	0.69 ps 10
2930.1 6	7 ⁻		4557.8 ^d 11	(13 ⁻)	
2967.00 [@] 21	8 ⁻		4608.3 ^b 7	14 ⁺	1.1 ps +5-3
2970.69 ^{&} 21	9 ⁻		4664.61 [@] 25	14 ⁻	
3003.3 ^a 7	8 ⁻		4695.8 ^e 15	(13 ⁺)	0.87 ps +22-17
3075.8 ^d 6	(8 ⁻)		4846.6 ^c 7	(14 ⁺)	0.21 ps 3

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(HI,xn γ) 1994To05,1992Go20,1986Lo11 (continued) ^{120}Xe Levels (continued)

E(level) [†]	J ^π [‡]	T _{1/2} [#]	E(level) [†]	J ^π [‡]	T _{1/2} [#]
4888.4 ^a 17	14 ⁻		6955.3 ^f 17	20 ⁺	0.12 ps 3
4938.6 ^d 11	(14 ⁻)		7319.8 ^b 19	(20 ⁺)	0.12 ps 4
5059.2 [@] 7	15 ⁻		7364? [@]	(20 ⁻)	
5085.2 ^{&} 7	15 ⁻		7430?	(20 ⁺)	
5232.2 ^f 9	16 ⁺	0.48 ps +15-8	7511.7 ^a 24	20 ⁻	
5405.8 ^b 12	16 ⁺	0.45 ps +19-9	7798.5 ^{&} 16	21 ⁻	
5479.9 [@] 8	16 ⁻		7879? [@]	(21 ⁻)	
5636.7 ^c 8	(16 ⁺)	0.49 ps +21-7	7955.0 ^f 20	22 ⁺	0.09 ps 4
5691.7 ^a 19	16 ⁻		8467 ^a 3	22 ⁻	
5920.1 [@] 9	17 ⁻		8810.2 ^{&} 19	(23 ⁻)	
5928.9 ^{&} 7	17 ⁻		9051.0 ^f 22	24 ⁺	
6050.9 ^f 14	18 ⁺	0.26 ps 4	9483 ^a 3	(24 ⁻)	
6338.8 ^b 16	18 ⁺	0.22 ps 5	9875.2 ^{&} 21	(25 ⁻)	
6382.6 [@] 10	18 ⁻		10241.0 ^f 24	(26 ⁺)	
6457.0 ^c 10	(18 ⁺)	0.22 ps +9-5	10644? ^a	(26 ⁻)	
6574.4 ^a 22	18 ⁻		11002.2 ^{&} 24	(27 ⁻)	
6833.5 ^{&} 12	19 ⁻		11524 ^f 3	(28 ⁺)	
6862.7 [@] 12	19 ⁻		12152? ^{&}	(29 ⁻)	

[†] From a least-squares fit to E(γ 's) by the evaluators.

[‡] Given by 1994To05 from expected band structures based on mult, assumed stretched E2 for DCO=1.0 and stretched D for \approx 0.6.

[#] From Adopted Levels.

[@] $\pi=-$ band built on the 2778-keV 6⁻ state.

[&] $\pi=-$ yrast band.

^a $\pi=-$ band built on the 2545-keV 6⁻ state.

^b $\pi=+$ band built on the 3327-keV 10⁺ state.

^c $\pi=+$ band built on the 4158-keV (12⁺) state.

^d $\pi=-$ band built on the 2931-keV 7⁻ state, but intraband transitions of this band are not well established.

^e Quasi- γ band.

^f $\pi=+$ yrast band.

 $\gamma(^{120}\text{Xe})$

DCO ratios are from 1994To05; A₂ and A₄ values from 1986Lo11.

E _{γ} [†]	I _{γ} [†]	E _i (level)	J _i ^π	E _f	J _f ^π	Mult. ^j	Comments
(38 ^{hi})		2967.00	8 ⁻	2930.1	7 ⁻		
(56 ^{hi})		2967.00	8 ⁻	2912.1			
59.5	0.3 1	2728.6	6 ⁻	2669.6			
73.5	1.3 3	3149.49	9 ⁻	3075.8	(8 ⁻)		
99.5	0.4 1	2930.1	7 ⁻	2830.36	7 ⁻	Q	DCO=1.0 2.
102.5	0.6 2	3383.50	10 ⁻	3280.8	(9 ⁻)		DCO=0.48 8.
109.0	1.8 1	3075.8	(8 ⁻)	2967.00	8 ⁻		DCO=1.21 12.
131.2	0.8 2	3280.8	(9 ⁻)	3149.49	9 ⁻		DCO=1.2 2.

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(HI,xn γ) 1994To05,1992Go20,1986Lo11 (continued) $\gamma(^{120}\text{Xe})$ (continued)

E_γ [†]	I_γ [†]	E_i (level)	J_i^π	E_f	J_f^π	Mult. ^j	Comments
136.6 <i>l</i>	1.8 ^{&} <i>l</i>	2967.00	8 ⁻	2830.36	7 ⁻	D	DCO=0.52 4; A ₂ =-0.77 3, A ₄ =0.11 6.
149.2	0.7 2	4608.3	14 ⁺	4458.8	14 ⁺	D	DCO=1.22 8. Mult.: D,Q from DCO but RUL rules out Q.
182.5 <i>l</i>	6.1 ^a <i>l</i>	3149.49	9 ⁻	2967.00	8 ⁻	Q	I _{γ} : other: 4.3 3 if I(319 γ)=6.8 in 1986Lo11. DCO=0.93 6; A ₂ =0.35 2, A ₄ =0.09 3.
183.8	0.3 <i>l</i>	2728.6	6 ⁻	2544.8	6 ⁻		DCO=0.82 11.
191.8	0.7 <i>l</i>	3575.5	(10 ⁻)	3383.50	10 ⁻	Q	DCO=1.00 9.
204.0	0.7 <i>l</i>	3852.6	(11 ⁻)	3648.59	11 ⁻	Q	DCO=0.94 12.
219	0.2 <i>l</i>	3149.49	9 ⁻	2930.1	7 ⁻		
234.1	9.0 ^b 3	3383.50	10 ⁻	3149.49	9 ⁻		E _{γ} : other: 234.0 <i>l</i> but given for a doublet (1986Lo11). DCO=0.76 3; A ₂ =-0.05 1, A ₄ =-0.01 2.
239.4	3.5 ^{&} 5	2967.00	8 ⁻	2728.6	6 ⁻		E _{γ} : other: 239.5 <i>l</i> but given for a doublet (1986Lo11). DCO=0.85 5; A ₂ =0.33 6, A ₄ =-0.03 6.
242.0	1.0 2	3918.6	12 ⁺	3676.39	12 ⁺	D	DCO=1.05 19. Mult.: RUL excludes mult E2, M2 and higher, suggests E1 or M1.
245.2	0.4 <i>l</i>	3075.8	(8 ⁻)	2830.36	7 ⁻		
256.2	0.5 <i>l</i>	4212.7	(12 ⁻)	3956.70	12 ⁻		DCO=0.76 10.
265	0.7 2	4557.8	(13 ⁻)	4292.80	13 ⁻		
265.1 <i>l</i>	6.9 ^c 3	3648.59	11 ⁻	3383.50	10 ⁻	D	DCO=0.74 3; A ₂ =0.09 3, A ₄ =-0.01 5.
274	<0.5	4938.6	(14 ⁻)	4664.61	14 ⁻		
308.1	6.1 ^d 3	3956.70	12 ⁻	3648.59	11 ⁻	D	I _{γ} : other: 7.8 3 if I(319 γ)=6.3 in 1986Lo11. DCO=0.66 3; A ₂ =0.06 3, A ₄ =-0.08 4.
319.1 <i>l</i>	6.8 ^a 3	3149.49	9 ⁻	2830.36	7 ⁻		DCO=0.83 2.
322.6 <i>l</i>	105.0 10	322.60	2 ⁺	0.0	0 ⁺		DCO=0.73 1; A ₂ =0.22 4, A ₄ =-0.08 6.
336.1 <i>l</i>	3.7 4	4292.80	13 ⁻	3956.70	12 ⁻	D	DCO=0.68 3; A ₂ =-0.04 2, A ₄ =0.12 4.
371.8 <i>l</i>	3.0 ^e 2	4664.61	14 ⁻	4292.80	13 ⁻	D	DCO=0.70 4. I _{γ} : other: 2.6 2 if I(708 γ)=5.1 (1986Lo11).
387		4846.6	(14 ⁺)	4458.8	14 ⁺		
394.7	2.5 2	5059.2	15 ⁻	4664.61	14 ⁻	D	DCO=0.60 7.
395.5 <i>l</i>	1.0 2	1271.60	3 ⁺	876.10	2 ⁺	D	DCO=0.59 4; A ₂ =0.13 7, A ₄ =0.1 1.
416.5 <i>l</i>	7.1 ^b 3	3383.50	10 ⁻	2967.00	8 ⁻		DCO=0.75 4; A ₂ =0.31 2, A ₄ =-0.10 3.
417 ^l	<0.5	1817.00	5 ⁺	1401.49	4 ⁺		E _{γ} : from authors' drawing, not given in table (1994To05).
420.8	1.7 2	5479.9	16 ⁻	5059.2	15 ⁻	D	DCO=0.67 9.
440.1	1.1 2	5920.1	17 ⁻	5479.9	16 ⁻	D	DCO=0.74 8.
458.9	0.6 <i>l</i>	3003.3	8 ⁻	2544.8	6 ⁻	Q	DCO=0.94 10.
462.5	0.7 2	6382.6	18 ⁻	5920.1	17 ⁻	D	DCO=0.70 10.
472.7	<1.0	2967.00	8 ⁻	2495.1	7 ⁻		
473.5 <i>l</i>	100	796.10	4 ⁺	322.60	2 ⁺		DCO=0.83 2; A ₂ =0.26 5, A ₄ =0.11 9.
476 ^k	<0.5 ^k	1271.60	3 ⁺	796.10	4 ⁺		
476 ^k	3.3 ^k 4	2970.69	9 ⁻	2495.1	7 ⁻		DCO=0.81 8.
480.1	0.7 2	6862.7	19 ⁻	6382.6	18 ⁻		
481.1	1.4 2	4157.6	(12 ⁺)	3676.39	12 ⁺	D	DCO=0.87 6. Mult.: D,Q from DCO but RUL excludes M2.
^x 489.5 [‡]							
499.1 <i>l</i>	7.6 ^c 3	3648.59	11 ⁻	3149.49	9 ⁻	Q	DCO=0.82 3; A ₂ =0.29 2, A ₄ =-0.10 3.
500 ^l	<1	7364?	(20 ⁻)	6862.7	19 ⁻	D	DCO=0.2 2.
507.5	0.8 2	2967.00	8 ⁻	2461.16	7 ⁺	D	E _{γ} : not reported in 1986Lo11. DCO=0.54 7.
507.7	0.5 <i>l</i>	3003.3	8 ⁻	2495.1	7 ⁻		DCO=0.37 5.
^x 512.5 [‡]							
525.4 <i>l</i>	3.2 3	1401.49	4 ⁺	876.10	2 ⁺		DCO=0.70 5; A ₂ =0.05 3, A ₄ =-0.08 8.
^x 531.1 [‡]							

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(HI,xn γ) 1994To05,1992Go20,1986Lo11 (continued) $\gamma(^{120}\text{Xe})$ (continued)

E_γ †	I_γ †	E_i (level)	J_i^π	E_f	J_f^π	Mult. ^j	Comments
532.2	2.5 <i>l</i>	3535.3	10 ⁻	3003.3	8 ⁻		DCO=0.87 7.
545.4 <i>l</i>	4.2 @ 2	1817.00	5 ⁺	1271.60	3 ⁺		DCO=0.80 3; A ₂ =0.26 3, A ₄ =-0.17 4.
553.5 <i>l</i>	3.7 # 3	876.10	2 ⁺	322.60	2 ⁺	D	DCO=0.60 10; A ₂ =0.07 1, A ₄ =-0.05 3.
564.4	1.0 2	3535.3	10 ⁻	2970.69	9 ⁻		
573.2 <i>l</i>	6.3 <i>d</i> 2	3956.70	12 ⁻	3383.50	10 ⁻	Q	DCO=0.90 4.
576 <i>l</i>	0.2 <i>l</i>	4167.4	12 ⁻	3591.58	11 ⁻		
584.4 <i>l</i>	5.5 <i>g</i> 4	1985.89	6 ⁺	1401.49	4 ⁺		E _{γ} : other: 585.1 (1994To05). DCO=0.75 5; A ₂ =0.24 3, A ₄ =-0.24 4.
588.6 <i>l</i>	<1 <i>g</i>	1985.89	6 ⁺	1397.28	6 ⁺		I _{γ} : other: 2.2 <i>l</i> if I(585 γ)=5.5 (1986Lo11).
592.6	2.5 3	3918.6	12 ⁺	3326.3	10 ⁺	E2	DCO=0.97 9.
601.1 3	86.7 10	1397.28	6 ⁺	796.10	4 ⁺	E2	Mult.: RUL excludes M2. E _{γ} : from 1982Ch01. Others: 601.2 <i>l</i> but given for a doublet (1986Lo11), 601.5 (1994To05). DCO=0.90 2; A ₂ =0.21 4, A ₄ =-0.06 7. Mult.: RUL excludes M2.
605.4 <i>l</i>	4.0 5	1401.49	4 ⁺	796.10	4 ⁺		
620.9 <i>l</i>	10.5 4	3591.58	11 ⁻	2970.69	9 ⁻	Q	DCO=0.95 3.
*629.6 ‡							
632.1	3.7 <i>l</i>	4167.4	12 ⁻	3535.3	10 ⁻	Q	E _{γ} : other: 630.9 (1992Go20). DCO=0.90 10.
637	0.5 <i>l</i>	4212.7	(12 ⁻)	3575.5	(10 ⁻)		
643.8	3.5 4	2461.16	7 ⁺	1817.00	5 ⁺	E2	E _{γ} : other: 644.2 <i>l</i> for a doublet (1986Lo11). DCO=1.03 5. Mult.: RUL excludes M2.
644.3	4.0 4	4292.80	13 ⁻	3648.59	11 ⁻	Q	E _{γ} : not reported in 1986Lo11. DCO=0.83 6.
656.2	1.2 3	2728.6	6 ⁻	2072.7	5		DCO=0.53 11.
657.5	0.7 <i>l</i>	4306.4	13 ⁻	3648.59	11 ⁻		DCO=0.90 13.
668.2	4.9 4	2653.7	8 ⁺	1985.89	6 ⁺		E _{γ} : other: 667.7 <i>l</i> but given for a doublet (1986Lo11). DCO=0.85 10; A ₂ =0.18 2, A ₄ =-0.11 3.
672.6 <i>l</i>	2.6 3	3326.3	10 ⁺	2653.7	8 ⁺		DCO=0.83 11.
690.0	4.0 3	4608.3	14 ⁺	3918.6	12 ⁺		DCO=1.12 10.
690 <i>l</i>		4846.6	(14 ⁺)	4157.6	(12 ⁺)		
701.8 <i>l</i>	54.2 8	2099.08	8 ⁺	1397.28	6 ⁺	E2	E _{γ} : other: 702.3 (1994To05) 702.3. DCO=0.97 2; A ₂ =0.26 5, A ₄ =-0.09 6. Mult.: RUL excludes M2.
702	<1	4292.80	13 ⁻	3591.58	11 ⁻		
705 <i>l</i>	<0.4	4557.8	(13 ⁻)	3852.6	(11 ⁻)		
707.9 <i>l</i>	5.1 <i>e</i> 4	4664.61	14 ⁻	3956.70	12 ⁻	Q	DCO=1.00 5.
713.6	2.2 <i>f</i> 4	3173.99	9 ⁺	2461.16	7 ⁺	E2	E _{γ} : other: 712.8 <i>l</i> but given for a doublet (1986Lo11). DCO=1.05 6; A ₂ =0.20 2, A ₄ =-0.17 4. Mult.: RUL excludes M2.
714.9	11.8 5	4306.4	13 ⁻	3591.58	11 ⁻	Q	E _{γ} : other: 714.6 <i>l</i> but given for a doublet (1986Lo11). DCO=1.08 5; A ₂ =0.26 2, A ₄ =-0.11 3.
719.5	2.4 4	3591.58	11 ⁻	2872.58	10 ⁺	D	DCO=0.65 6.
721.0	2.8 3	4888.4	14 ⁻	4167.4	12 ⁻	Q	DCO=1.00 6.
726 <i>l</i>		4938.6	(14 ⁻)	4212.7	(12 ⁻)		
732.4	0.3 <i>l</i>	2830.36	7 ⁻	2099.08	8 ⁺		
742.6	0.4 <i>l</i>	2728.6	6 ⁻	1985.89	6 ⁺		DCO=0.85 9.
759.8	2 <i>l</i>	3933.8	11 ⁺	3173.99	9 ⁺	E2	DCO=1.02 9. RUL excludes M2.
762		4695.8	(13 ⁺)	3933.8	11 ⁺		
766.5	3.4 2	5059.2	15 ⁻	4292.80	13 ⁻	Q	DCO=0.95 6.
773.5 <i>l</i>	43.0 8	2872.58	10 ⁺	2099.08	8 ⁺	E2	DCO=1.00 6; A ₂ =0.26 2, A ₄ =-0.18 3. Mult.: RUL excludes M2.

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(HI,xn γ) 1994To05,1992Go20,1986Lo11 (continued) $\gamma(^{120}\text{Xe})$ (continued)

E_γ [†]	I_γ [†]	E_i (level)	J_i^π	E_f	J_f^π	Mult. ^j	Comments
773.6		5232.2	16 ⁺	4458.8	14 ⁺	E2	DCO=1.00 2. Mult.: RUL excludes M2.
778.8 1	8.1 4	5085.2	15 ⁻	4306.4	13 ⁻	Q	E_γ : other: 779.4 (1994To05). DCO=1.05 4; $A_2=0.16$ 12, $A_4=-0.4$ 2.
782.4 1	14.5 10	4458.8	14 ⁺	3676.39	12 ⁺	E2	DCO=1.03 3; $A_2=0.24$ 4, $A_4=-0.06$ 2. Mult.: RUL excludes M2.
789.8	1.2 3	5636.7	(16 ⁺)	4846.6	(14 ⁺)	E2	DCO=1.10 10. Mult.: RUL excludes M2.
792.7	0.3 1	5085.2	15 ⁻	4292.80	13 ⁻		DCO=0.81 16.
797.5	3.0 3	5405.8	16 ⁺	4608.3	14 ⁺	E2	DCO=0.98 5. Mult.: RUL excludes M2.
803.3	2.4 3	5691.7	16 ⁻	4888.4	14 ⁻	Q	DCO=0.98 7.
803.8 1	24.5 4	3676.39	12 ⁺	2872.58	10 ⁺	E2	DCO=1.00 2; $A_2=0.23$ 2, $A_4=-0.16$ 4. Mult.: RUL excludes M2.
815.1	2.6 2	5479.9	16 ⁻	4664.61	14 ⁻	Q	DCO=1.20 10.
818.7	7.2 3	6050.9	18 ⁺	5232.2	16 ⁺	E2	DCO=0.99 3. Mult.: RUL excludes M2.
820	1.1 2	6457.0	(18 ⁺)	5636.7	(16 ⁺)		
843.7 1	5.7 3	5928.9	17 ⁻	5085.2	15 ⁻	Q	DCO=1.00 8.
860.9	2.9 3	5920.1	17 ⁻	5059.2	15 ⁻	Q	DCO=0.97 6.
864 ^l	<1	7319.8	(20 ⁺)	6457.0	(18 ⁺)		
871.6 1	10.7 3	2970.69	9 ⁻	2099.08	8 ⁺	D	DCO=0.55 2; $A_2=-0.25$ 2, $A_4=-0.09$ 3.
876.1 1	1.2 [#] 2	876.10	2 ⁺	0.0	0 ⁺		
882.7	1.7 2	6574.4	18 ⁻	5691.7	16 ⁻	Q	E_γ : other: 881.6 (1992Go20). DCO=1.00 10.
902.8	0.8 2	6382.6	18 ⁻	5479.9	16 ⁻	Q	E_γ : other: 901.8 (1992Go20). DCO=1.04 7.
904.4	3.2 3	6955.3	20 ⁺	6050.9	18 ⁺	E2	E_γ : other: 903.4 (1992Go20). DCO=1.00 10. Mult.: RUL excludes M2.
904.5	1.0 1	3003.3	8 ⁻	2099.08	8 ⁺		
904.6	3.5 2	6833.5	19 ⁻	5928.9	17 ⁻	Q	DCO=0.89 6.
911.9	0.5 2	2728.6	6 ⁻	1817.00	5 ⁺	D	DCO=0.52 12.
932	<1	4608.3	14 ⁺	3676.39	12 ⁺		
933	1.5 5	6338.8	18 ⁺	5405.8	16 ⁺	E2	DCO=0.92 11. Mult.: RUL excludes M2.
937.3	1.1 1	7511.7	20 ⁻	6574.4	18 ⁻		E_γ : other: 936.6 (1992Go20). DCO=0.90 15.
942.6	1.4 3	6862.7	19 ⁻	5920.1	17 ⁻		DCO=1.11 12.
949.0 1	2.5 3	1271.60	3 ⁺	322.60	2 ⁺		E_γ : other: 949.6 (1994To05).
^x 953.0 [‡]							
955	0.7 1	8467	22 ⁻	7511.7	20 ⁻	Q	DCO=0.96 10.
965.0	2.3 3	7798.5	21 ⁻	6833.5	19 ⁻	Q	E_γ : other: 964.3 (1992Go20). DCO=1.02 9.
^x 975.2 [‡]							
980 ^l	1.4 5	7364?	(20 ⁻)	6382.6	18 ⁻		
981	0.6 2	7319.8	(20 ⁺)	6338.8	18 ⁺		E_γ : other: 982.1 (1992Go20).
999.7	1.8 2	7955.0	22 ⁺	6955.3	20 ⁺	E2	Mult.: RUL excludes M2. DCO=1.01 7.
^x 1002.0 [‡]							
1011.7	1.3 3	8810.2	(23 ⁻)	7798.5	21 ⁻		E_γ : other: 1010.8 (1992Go20).
1014 ^l	1.9 5	7879?	(21 ⁻)	6862.7	19 ⁻		
1016	<0.5	9483	(24 ⁻)	8467	22 ⁻		E_γ : other: 1018.3 (1992Go20).
1020.9 1	2.6 [@] 4	1817.00	5 ⁺	796.10	4 ⁺		E_γ : others: 1021.4 3 (1982Ch01), 1022 (1994To05).

Continued on next page (footnotes at end of table)

(HI,xn γ) 1994To05,1992Go20,1986Lo11 (continued) $\gamma(^{120}\text{Xe})$ (continued)

E_γ^\dagger	I_γ^\dagger	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^j	Comments
^x 1043.6 [‡] 1046.1	2.7 3	3918.6	12 ⁺	2872.58	10 ⁺		DCO=0.80 15.
^x 1053.0 [‡] 1063.9 I	1.0 3	2461.16	7 ⁺	1397.28	6 ⁺		E_γ : not given in authors' table, but shown in level scheme. Other: 1064.0 (1994To05). E_γ : other: 1063.3 (1992Go20).
1065	0.5 I	9875.2	(25 ⁻)	8810.2	(23 ⁻)		
1074.9 I	<0.5 ^f	3173.99	9 ⁺	2099.08	8 ⁺		
1079	0.20 7	1401.49	4 ⁺	322.60	2 ⁺		
1088 ^l		7430?	(20 ⁺)	6338.8	18 ⁺		
1096	0.7 2	9051.0	24 ⁺	7955.0	22 ⁺	Q	DCO=1.01 13.
1098.7	8.1 3	2495.1	7 ⁻	1397.28	6 ⁺	D	E_γ : other: 1098.3 I but given for a doublet (1986Lo11). DCO=0.62 I; $A_2=-0.26$ 4, $A_4=0.03$ 3.
1127	<0.5	11002.2	(27 ⁻)	9875.2	(25 ⁻)		
1147 ^l	<0.5	12152?	(29 ⁻)	11002.2	(27 ⁻)		
1147.8	0.6 I	2544.8	6 ⁻	1397.28	6 ⁺	D	DCO=0.85 5.
1160 ^l	0.2 I	10644?	(26 ⁻)	9483	(24 ⁻)		
1170.8	1.4 2	4846.6	(14 ⁺)	3676.39	12 ⁺		DCO=1.2 2.
1178.0	1.2 2	5636.7	(16 ⁺)	4458.8	14 ⁺	E2	DCO=1.0 2. Mult.: RUL excludes M2.
^x 1185.5 [‡] 1190	<1	10241.0	(26 ⁺)	9051.0	24 ⁺		
1225	0.7 3	6457.0	(18 ⁺)	5232.2	16 ⁺		
1268.6	0.8 3	2669.6		1401.49	4 ⁺	D	DCO=0.66 8.
1276.9	2.2 2	2072.7	5	796.10	4 ⁺		E_γ : other: 1276.1 I, but given for a doublet (1986Lo11). DCO=0.49 5; $A_2=-0.15$ 4, $A_4=0.02$ 6.
1283	<0.5	11524	(28 ⁺)	10241.0	(26 ⁺)		
1285.2		4157.6	(12 ⁺)	2872.58	10 ⁺		
1433.0 I	10.0 5	2830.36	7 ⁻	1397.28	6 ⁺	D	E_γ : other: 1434.8 (1994To05). DCO=0.53 4; $A_2=-0.23$ 3, $A_4=0.09$ 3.
1516	0.7 2	2912.1		1397.28	6 ⁺		
1533.7	3.2 3	2930.1	7 ⁻	1397.28	6 ⁺	D	DCO=0.63 6.

[†] From 1994To05, unless otherwise noted. $E(\gamma$'s) with uncertainty of 0.1 keV are from 1986Lo11.

[‡] From 1992Go20. Transition placed in authors' level scheme; however, placement not supported by 1994To05.

[#] $I_\gamma(876.1\gamma)/I_\gamma(553.6\gamma)=0.43$ 13 from 1986Lo11, compared with 0.32 5 from 1994To05.

[@] $I_\gamma(1020.9\gamma)/I_\gamma(545.4\gamma)=0.85$ 4 from 1986Lo11, compared with 0.62 10 from 1994To05.

[&] $I_\gamma(239.4\gamma)/I_\gamma(136.6\gamma)=0.86$ 12 from 1986Lo11, compared with 1.9 3 from 1994To05.

^a $I_\gamma(319.1\gamma)/I_\gamma(182.5\gamma)=0.63$ 4 from 1986Lo11, compared with 0.897 15 from 1994To05.

^b $I_\gamma(416.5\gamma)/I_\gamma(234.1\gamma)=0.73$ 3 from 1986Lo11, compared with 0.79 3 from 1994To05.

^c $I_\gamma(499.1\gamma)/I_\gamma(265.1\gamma)=0.800$ 25 from 1986Lo11, compared with 1.10 7 from 1994To05.

^d $I_\gamma(573.2\gamma)/I_\gamma(308.1\gamma)=0.81$ 35 from 1986Lo11, compared with 1.03 6 from 1994To05.

^e $I_\gamma(707.9\gamma)/I_\gamma(371.8\gamma)=2.00$ 17 from 1986Lo11, compared with 1.70 19 from 1994To05.

^f $I_\gamma(1074.9\gamma)/I_\gamma(713.6\gamma)=0.58$ 6 from 1986Lo11, compared with <0.23 from 1994To05.

^g $I_\gamma(588.6\gamma)/I_\gamma(584.4\gamma)=0.409$ 15 from 1986Lo11, compared with <0.182 from 1994To05.

^h E_γ from E(level) difference. Transition not observed, but required by $\gamma\gamma$ (1994To05). The 38γ is also proposed by 1992Go20.

ⁱ From authors' drawing in 1994To05.

^j From DCO ratio (1994To05) and $\gamma(\theta)$ (1986Lo11).

^k Multiply placed with intensity suitably divided.

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

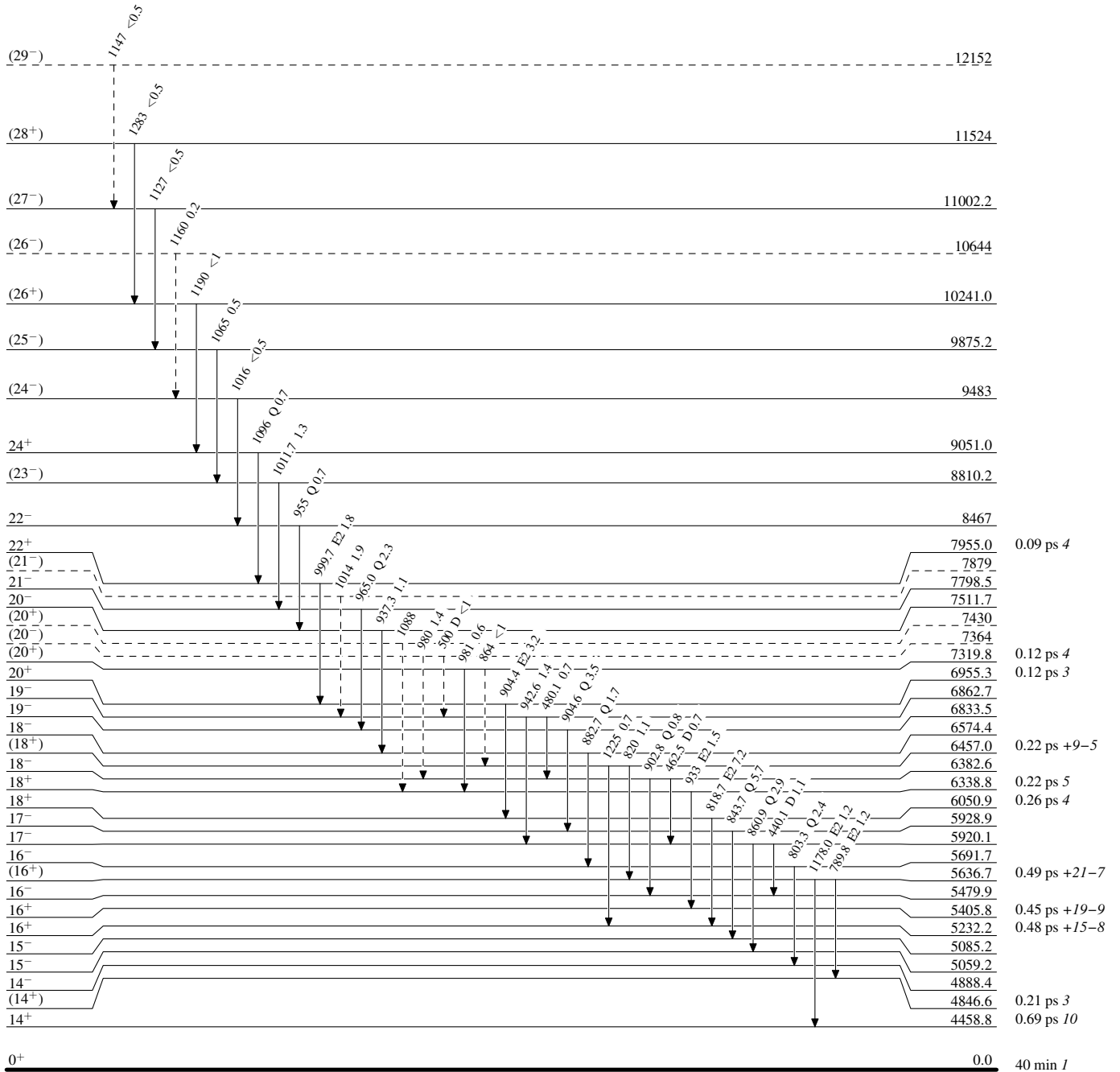
^x γ ray not placed in level scheme.

(HI,xn γ) 1994To05,1992Go20,1986Lo11

Legend

Level SchemeIntensities: 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)

 $^{120}_{54}\text{Xe}_{66}$

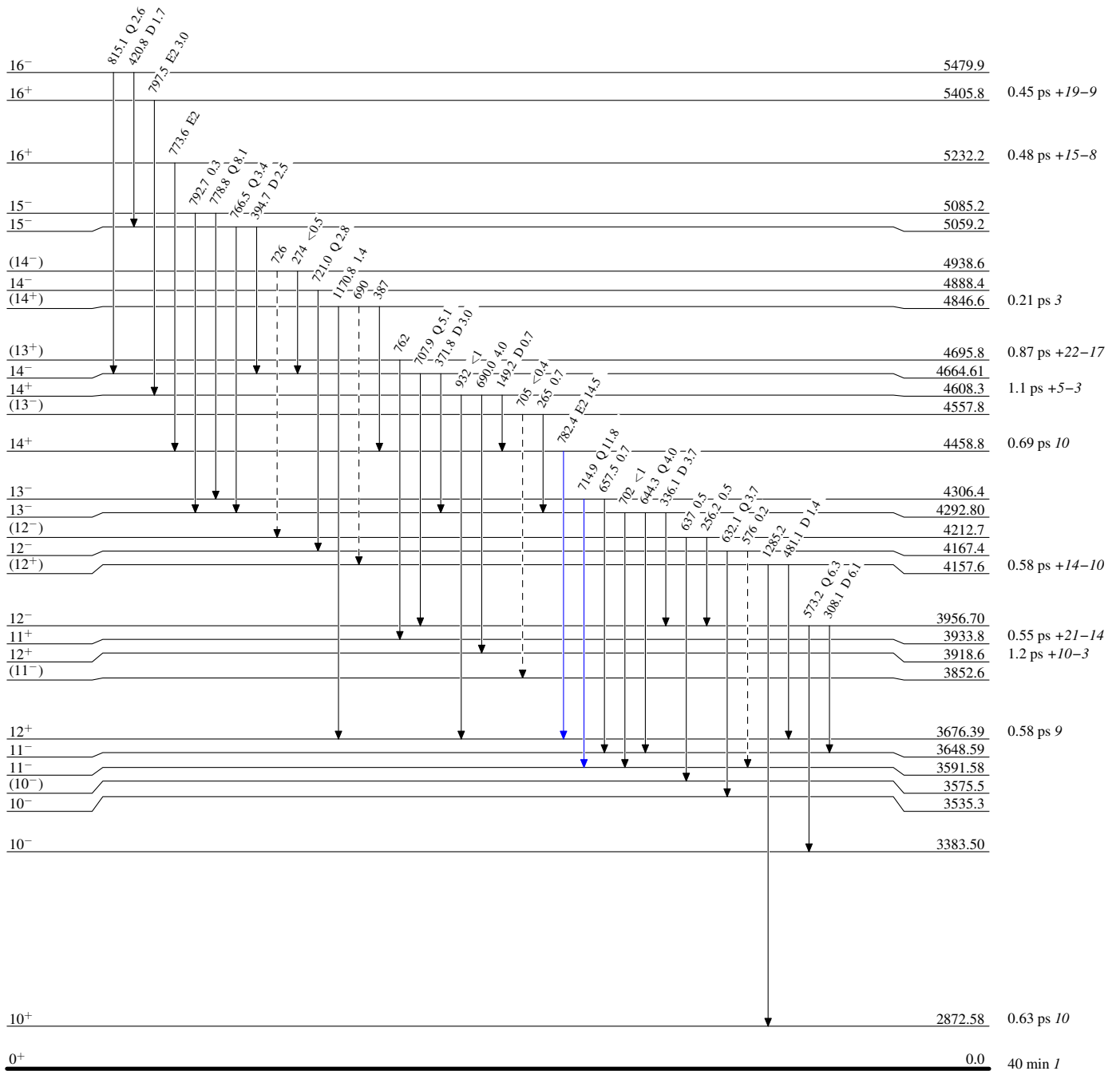
(HI,xn γ) 1994To05,1992Go20,1986Lo11

Legend

Level Scheme (continued)

Intensities: Relative I_γ

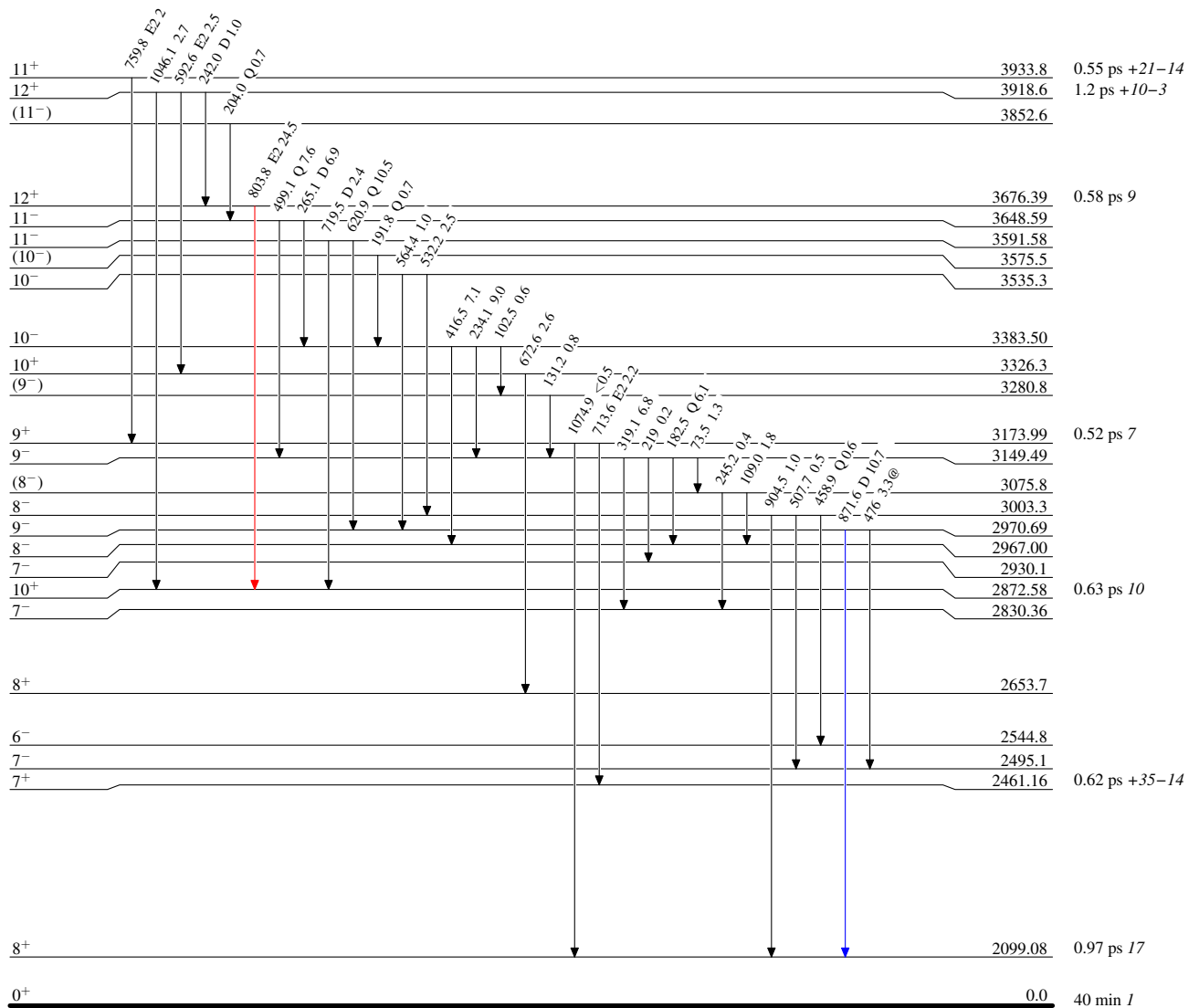
- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- - - - γ Decay (Uncertain)

 $^{120}_{54}\text{Xe}_{66}$

(HI,xn γ) 1994To05,1992Go20,1986Lo11**Level Scheme (continued)****Legend**

Intensities: Relative I_γ
 @ Multiply placed: intensity suitably divided

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

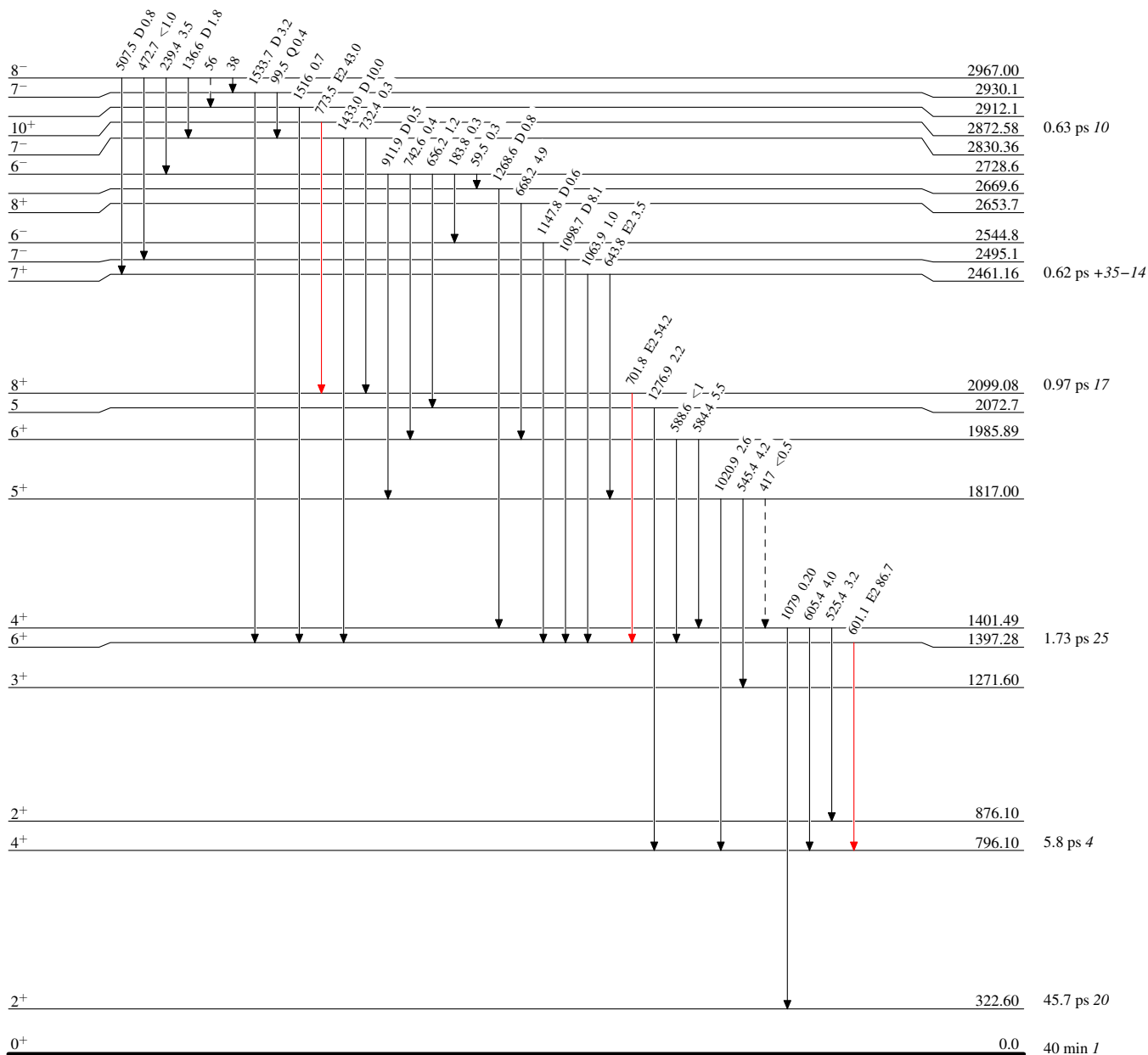
 $^{120}_{54}\text{Xe}_{66}$

(HI,xn γ) 1994To05,1992Go20,1986Lo11**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)

 $^{120}_{54}\text{Xe}_{66}$

(HI,xn γ) 1994To05,1992Go20,1986Lo11**Level Scheme (continued)**

Intensities: Relative I_γ
 @ Multiply placed: intensity suitably divided

Legend

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

