^{121}Cs ε decay (122 s) 1991Ge02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. Ohya	NDS 111, 1619 (2010)	20-Jan-2009

Parent: ^{121}Cs: E=68.5 *3*; J$^{\pi}$=9/2$^{(+)}$; T$_{1/2}$=122 s *3*; Q(ε)=5372 *18*; %ε+%β^+ decay=83.0

1991Ge02: La(p,spall) E=600 MeV, on-line ms; measured γ, $\gamma\gamma$, $\gamma\gamma$(t). La(^{3}He,spall) E=280 MeV on-line ms; measured ce with Si detector with magnetic β^+ shield, β^+ with 4$\pi\beta$ plastic scin. Authors proposed level scheme in the mixed decays of ^{121}Cs (155 s) and ^{121}Cs (122 s).

1981So06: ^{124}Xe(p,4n) E=52 MeV, Eγ, Iγ, $\gamma\gamma$, Eβ^+, Iβ^+, x/γ ratio, deduced decay scheme.

1984PaZZ: measured Q(β^+)=5.21 MeV *22* from shape-fitting procedure (a different method from F-K analysis).

1975We23: La(p,3pxn) E=600 MeV ms; measured γ in coincidence with β^+.

1996Os04:measured Q+$_-$ =5.40 MeV *4* with pure Ge detectors.

Decay scheme is from evaluator based on that in 1991Ge02. (155 s). Evaluator assumed no direct ε+β^+ feeding from ^{121}Cs ε decay (122 s) to the levels at 153.95 keV, 239.74 keV, 264.5 keV, 427.12 keV and 449.85 keV which are strongly fed from ^{121}Cs 3/2$^{(+)}$, and also assumed no direct ε+β^+ feeding to the levels at 179.44 keV and 196.081 keV which are strongly fed from ^{121}Cs 9/2$^{(+)}$ state. See ^{121}Cs ε decay (155 s). The decay scheme of ^{121}Cs ε decay (122 s) is still tentative due to similarity of half-lives of g.s.(155 s) and isomeric state (122 s).

^{121}Xe Levels

E(level)†	J$^{\pi}$‡	T$_{1/2}$	Comments
0	5/2$^{(+)}$	40.1 min *20*	
153.95 *14*	(1/2$^+$)	80 ns *15*	T$_{1/2}$: from $\gamma\gamma$(t).
179.48 *10*	7/2$^{(+)}$		
196.01 *17*	7/2$^{(-)}$	8 ns *2*	T$_{1/2}$: from $\gamma\gamma$(t).
234.52 *24*	7/2$^{(-)}$,9/2$^{(-)}$		
239.74 *14*	(3/2$^+$)		
264.5 *5*	(11/2$^-$)		
414.17 *11*	(9/2$^+$)		
427.12 *13*	(3/2$^+$,5/2$^+$)		
449.85 *11*	(5/2$^+$)		
459.50 *16*	(7/2$^+$)		
476.1 *3*			
476.16 *24*	(7/2,9/2,11/2)$^{(-)}$		
560.83 *18*	(7/2$^+$)		
592.6 *4*			
608.3 *4*			
646.1 *3*			
657.6 *5*	(13/2$^-$)		
661.0 *4*			
667.7 *3*			
670.20 *20*	(11/2$^+$)		
706.13 *12*	(7/2$^+$)		
734.52 *19*	(7/2$^+$,9/2$^+$)		
861.0 *3*			
881.15 *23*			
897.1 *4*			
899.93 *23*			
910.23 *18*			
978.4 *4*			
998.72 *17*			
1020.8 *11*	(11/2$^+$)		
1149.4 *4*			
1247.1 *6*			
1261.5 *4*			

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^{121}Cs ε decay (122 s) 1991Ge02 (continued)

^{121}Xe Levels (continued)

E(level)†
1299.56 *16*
1343.5 *3*
1419.7 *3*
1596.3 *5*

† E(levels) are based on a least-squares fit to E(γ's).
‡ From Adopted Levels.

ε,β^+ radiations

Iβ normalization: from Ice((68.5γ)/(I(IT)+I(ε+β^+))≈0.17 (1991Ge02).

E(decay)	E(level)	Iβ^+ †	Iε†	Log *ft*	I($\varepsilon+\beta^+$)†	Comments
(3844 *18*)	1596.3	0.17 *8*	0.06 *3*	7.04 *21*	0.23 *11*	av Eβ=1276.4 *84*; εK=0.239 *4*; εL=0.0318 *5*; εM+=0.00864 *13*
(4021 *18*)	1419.7	0.33 *8*	0.11 *2*	6.86 *10*	0.44 *10*	av Eβ=1358.5 *84*; εK=0.209 *3*; εL=0.0278 *4*; εM+=0.00754 *11*
(4097 *18*)	1343.5	0.44 *10*	0.13 *3*	6.79 *10*	0.57 *13*	av Eβ=1394.0 *84*; εK=0.197 *3*; εL=0.0262 *4*; εM+=0.00712 *10*
(4141 *18*)	1299.56	1.68 *16*	0.48 *5*	6.23 *5*	2.16 *20*	av Eβ=1414.5 *84*; εK=0.191 *3*; εL=0.0254 *4*; εM+=0.00689 *10*
(4179 *18*)	1261.5	0.45 *6*	0.12 *2*	6.83 *7*	0.57 *8*	av Eβ=1432.3 *84*; εK=0.186 *3*; εL=0.0247 *4*; εM+=0.00670 *9*
(4193 *18*)	1247.1	0.16 *6*	0.045 *17*	7.27 *17*	0.21 *8*	av Eβ=1439.0 *85*; εK=0.1837 *25*; εL=0.0244 *4*; εM+=0.00662 *9*
(4291 *18*)	1149.4	0.71 *17*	0.18 *4*	6.70 *11*	0.89 *21*	av Eβ=1484.7 *85*; εK=0.1710 *23*; εL=0.0227 *3*; εM+=0.00616 *9*
(4420 *18*)	1020.8	0.32 *11*	0.071 *24*	7.12 *15*	0.39 *13*	av Eβ=1544.9 *85*; εK=0.1558 *21*; εL=0.0207 *3*; εM+=0.00561 *8*
(4442 *18*)	998.72	0.94 *11*	0.206 *24*	6.66 *6*	1.15 *13*	av Eβ=1555.2 *85*; εK=0.1533 *20*; εL=0.0204 *3*; εM+=0.00552 *8*
(4462 *18*)	978.4	0.21 *5*	0.046 *11*	7.32 *11*	0.26 *6*	av Eβ=1564.8 *85*; εK=0.1511 *20*; εL=0.0201 *3*; εM+=0.00544 *7*
(4530 *18*)	910.23	0.67 *10*	0.14 *2*	6.86 *7*	0.81 *12*	av Eβ=1596.8 *85*; εK=0.1440 *19*; εL=0.01911 *25*; εM+=0.00519 *7*
(4541 *18*)	899.93	0.42 *9*	0.084 *18*	7.07 *10*	0.50 *11*	av Eβ=1601.6 *85*; εK=0.1430 *19*; εL=0.01897 *25*; εM+=0.00515 *7*
(4543 *18*)	897.1	0.17 *7*	0.035 *13*	7.45 *17*	0.21 *8*	av Eβ=1602.9 *85*; εK=0.1427 *19*; εL=0.01893 *25*; εM+=0.00514 *7*
(4559 *18*)	881.15	0.37 *7*	0.073 *13*	7.14 *8*	0.44 *8*	av Eβ=1610.4 *85*; εK=0.1411 *18*; εL=0.01872 *24*; εM+=0.00508 *7*
(4580 *18*)	861.0	0.35 *7*	0.068 *13*	7.17 *9*	0.42 *8*	av Eβ=1619.9 *85*; εK=0.1391 *18*; εL=0.01846 *24*; εM+=0.00501 *7*
(4706 *18*)	734.52	2.0 *3*	0.36 *6*	6.47 *8*	2.4 *4*	av Eβ=1679.4 *85*; εK=0.1275 *16*; εL=0.01691 *21*; εM+=0.00459 *6*
(4734 *18*)	706.13	3.9 *3*	0.67 *6*	6.21 *4*	4.6 *4*	av Eβ=1692.8 *85*; εK=0.1250 *16*; εL=0.01658 *21*; εM+=0.00450 *6*
(4770 *18*)	670.20	1.09 *14*	0.181 *23*	6.78 *6*	1.27 *16*	av Eβ=1709.7 *85*; εK=0.1220 *15*; εL=0.01618 *20*; εM+=0.00439 *6*
(4773 *18*)	667.7	0.27 *5*	0.044 *9*	7.40 *9*	0.31 *6*	av Eβ=1710.9 *85*; εK=0.1218 *15*; εL=0.01615 *20*; εM+=0.00438 *6*

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^{121}Cs ε decay (122 s) 1991Ge02 (continued)

ϵ,β^+ radiations (continued)

E(decay)	E(level)	Iβ^+ †	Iε†	Log *ft*	I(ε+β^+)†	Comments
(4780 *18*)	661.0	0.27 *7*	0.044 *11*	7.40 *12*	0.31 *8*	av Eβ=1714.0 *85*; εK=0.1212 *15*; εL=0.01608 *20*; εM+=0.00436 *6*
(4783 *18*)	657.6	0.29 *9*	0.048 *16*	7.36 *15*	0.34 *11*	av Eβ=1715.6 *85*; εK=0.1210 *15*; εL=0.01604 *20*; εM+=0.00435 *6*
(4794 *18*)	646.1	1.12 *9*	0.182 *16*	6.78 *4*	1.30 *11*	av Eβ=1721.1 *85*; εK=0.1200 *15*; εL=0.01592 *20*; εM+=0.00432 *6*
(4832 *18*)	608.3	0.38 *9*	0.060 *15*	7.27 *11*	0.44 *11*	av Eβ=1738.9 *85*; εK=0.1170 *15*; εL=0.01552 *19*; εM+=0.00421 *6*
(4848 *18*)	592.6	0.63 *10*	0.099 *15*	7.06 *7*	0.73 *11*	av Eβ=1746.3 *85*; εK=0.1158 *14*; εL=0.01535 *19*; εM+=0.00417 *5*
(4880 *18*)	560.83	2.0 *3*	0.30 *5*	6.58 *8*	2.3 *4*	av Eβ=1761.3 *85*; εK=0.1134 *14*; εL=0.01503 *19*; εM+=0.00408 *5*
(4964 *18*)	476.16	1.4 *3*	0.20 *4*	6.77 *9*	1.6 *3*	av Eβ=1801.3 *85*; εK=0.1072 *13*; εL=0.01421 *17*; εM+=0.00386 *5*
(4981 *18*)	459.50	13.2 *7*	1.87 *10*	5.81 *3*	15.1 *8*	av Eβ=1809.2 *86*; εK=0.1060 *13*; εL=0.01406 *17*; εM+=0.00381 *5*
(5026 *18*)	414.17	3.4 *4*	0.47 *6*	6.41 *6*	3.9 *5*	av Eβ=1830.6 *86*; εK=0.1030 *13*; εL=0.01365 *17*; εM+=0.00370 *5*
(5206 *18*)	234.52	8.7 *4*	1.0 *1*	6.10 *3*	9.7 *5*	av Eβ=1915.7 *86*; εK=0.0918 *11*; εL=0.01216 *14*; εM+=0.00330 *4*
(5244 *18*)	196.01	7.8 *7*	0.91 *8*	6.16 *5*	8.7 *8*	av Eβ=1933.9 *86*; εK=0.0896 *11*; εL=0.01187 *14*; εM+=0.00322 *4*
(5261 *18*)	179.48	18.5 *9*	2.13 *11*	5.80 *3*	20.6 *10*	av Eβ=1941.8 *86*; εK=0.0887 *10*; εL=0.01175 *14*; εM+=0.00319 *4*

† Absolute intensity per 100 decays.

γ(^{121}Xe)

Iγ normalization: from I(ce+γ)(68.5γ)+ΣI(γ+ce) to g.s.=100.
Unplaced γ′s are not assigned to g.s. or isomeric state.

E_γ	I_γ †#	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α ‡	Comments
30.3		264.5	(11/2$^-$)	234.52	7/2$^{(-)}$,9/2$^{(-)}$				Intensity balance at 234.5 level requires the existence of 30.3γ (I(γ+ce)≥4) as observed in ^{112}Cd(^{12}C,3nγ) (evaluators).
38.4 *3*	100 *4*	234.52	7/2$^{(-)}$,9/2$^{(-)}$	196.01	7/2$^{(-)}$	M1+E2	0.15 *3*	14.2 *6*	α(K)=11.2 *3*; α(L)=2.4 *4*; α(M)=0.50 *9*; α(N+..)=0.113 *18* α(N)=0.101 *17*; α(O)=0.0114 *16* Mult.: from α(M)exp=0.50 *5*.
55.1 *3*	3 *2*	234.52	7/2$^{(-)}$,9/2$^{(-)}$	179.48	7/2$^{(+)}$	[E1]		1.096 *23*	α(K)=0.930 *19*; α(L)=0.133 *3*; α(M)=0.0269 *6*; α(N+..)=0.00603 *13* α(N)=0.00541 *12*; α(O)=0.000618 *13*
^{x}59.3 *5*	4 *1*								
69 *1*	2 *1*	264.5	(11/2$^-$)	196.01	7/2$^{(-)}$				
85.9 *3*	18 *3*	239.74	(3/2$^+$)	153.95	(1/2$^+$)	M1		1.267 *22*	α(K)=1.087 *19*; α(L)=0.1438 *25*; α(M)=0.0292 *5*; α(N+..)=0.00680 *12* α(N)=0.00605 *11*; α(O)=0.000754 *13* Mult.: from α(K)exp=1.2 *2*, K/L=7 *1*.
111.0 *3*	17 *2*	560.83	(7/2$^+$)	449.85	(5/2$^+$)	M1		0.610 *10*	α(K)=0.524 *9*; α(L)=0.0691 *11*; α(M)=0.01403 *23*; α(N+..)=0.00327 *6* α(N)=0.00290 *5*; α(O)=0.000362 *6* Mult.: from α(K)exp=0.4 *1*, K/L=7 *3*.
153.9 *2*	45 *5*	153.95	(1/2$^+$)	0	5/2$^{(+)}$	E2		0.397	α(K)=0.301 *5*; α(L)=0.0766 *12*; α(M)=0.01615 *25*; α(N+..)=0.00357 *6* α(N)=0.00323 *5*; α(O)=0.000344 *6* From K/L=3.9 *4*. α(K)(E2)=0.303 is used as calibration of α(exp).
179.4 *2*	1159 *20*	179.48	7/2$^{(+)}$	0	5/2$^{(+)}$	M1		0.1606	α(K)=0.1381 *20*; α(L)=0.0180 *3*; α(M)=0.00366 *6*; α(N+..)=0.000852 *13* α(N)=0.000757 *11*; α(O)=9.47×10^{-5} *14* Mult.: from α(K)exp=0.15 *2*, K/L=7.4 *4*.
196.0 *2*	926 *20*	196.01	7/2$^{(-)}$	0	5/2$^{(+)}$	E1		0.0325	α(K)=0.0281 *4*; α(L)=0.00358 *6*; α(M)=0.000723 *11*; α(N+..)=0.0001662 *24* α(N)=0.0001482 *22*; α(O)=1.80×10^{-5} *3* Mult.: from α(K)exp=0.030 *3*, K/L=8.2 *9*.
210.1 *2*	8.4 *20*	449.85	(5/2$^+$)	239.74	(3/2$^+$)	[E2]		0.1360	α(K)=0.1082 *16*; α(L)=0.0221 *4*; α(M)=0.00462 *7*; α(N+..)=0.001032 *15* α(N)=0.000929 *14*; α(O)=0.0001028 *15* Mult.: assumed E2 to deduce α.
234.5 *2*	180 *10*	414.17	(9/2$^+$)	179.48	7/2$^{(+)}$	M1		0.0780	α(K)=0.0671 *10*; α(L)=0.00869 *13*; α(M)=0.00176 *3*;

From ENSDF

$^{121}_{54}Xe_{67}$-4

γ(^{121}Xe) (continued)

E_γ	I_γ [†#]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α [‡]	Comments
								α(N+..)=0.000411 *6* α(N)=0.000365 *6*; α(O)=4.57×10^{-5} *7* Mult.: from α(K)exp=0.080 *15*, K/L=8 *1*.
239.6 *2*	67 *7*	239.74	(3/2$^+$)	0	5/2$^{(+)}$	M1	0.0736	α(K)=0.0634 *9*; α(L)=0.00820 *12*; α(M)=0.001664 *24*; α(N+..)=0.000388 *6* α(N)=0.000344 *5*; α(O)=4.31×10^{-5} *7* Mult.: from α(K)exp=0.075 *15*, K/L=7.5 *8*.
247.0 *3*	11 *2*	706.13	(7/2$^+$)	459.50	(7/2$^+$)	(M1,E2)	0.073 *6*	α(K)=0.061 *3*; α(L)=0.0098 *22*; α(M)=0.0020 *5*; α(N+..)=0.00046 *10* α(N)=0.00041 *10*; α(O)=4.8×10^{-5} *9* α(K)exp=0.07 *3*.
255.9 *2*	27 *3*	670.20	(11/2$^+$)	414.17	(9/2$^+$)	M1	0.0618	α(K)=0.0532 *8*; α(L)=0.00688 *10*; α(M)=0.001394 *20*; α(N+..)=0.000325 *5* α(N)=0.000289 *4*; α(O)=3.62×10^{-5} *6* Mult.: from α(K)exp=0.07 *2*, K/L>7.
270.2 *2*	20 *3*	449.85	(5/2$^+$)	179.48	7/2$^{(+)}$	M1	0.0536	α(K)=0.0461 *7*; α(L)=0.00595 *9*; α(M)=0.001206 *17*; α(N+..)=0.000281 *4* α(N)=0.000250 *4*; α(O)=3.13×10^{-5} *5* Mult.: from α(K)exp=0.06 *2*, K/L=9.
273.2 *3*	4 *1*	427.12	(3/2$^+$,5/2$^+$)	153.95	(1/2$^+$)			
278.9 *3*	50 *10*	706.13	(7/2$^+$)	427.12	(3/2$^+$,5/2$^+$)	[M1]	0.0493	α(K)=0.0425 *6*; α(L)=0.00547 *8*; α(M)=0.001109 *16*; α(N+..)=0.000258 *4* α(N)=0.000230 *4*; α(O)=2.88×10^{-5} *5* Mult.: assumed M1 to deduce α.
280.1 [@] *2*	120 [@] *20*	459.50	(7/2$^+$)	179.48	7/2$^{(+)}$	M1	0.0487	α(K)=0.0420 *6*; α(L)=0.00541 *8*; α(M)=0.001096 *16*; α(N+..)=0.000255 *4* α(N)=0.000227 *4*; α(O)=2.84×10^{-5} *4*
280.1 [@] *2*	60 [@] *10*	476.16	(7/2,9/2,11/2)$^{(-)}$	196.01	7/2$^{(-)}$	M1,E2	0.0505 *19*	α(K)=0.0424 *8*; α(L)=0.0065 *11*; α(M)=0.00133 *24*; α(N+..)=0.00030 *5* α(N)=0.00027 *5*; α(O)=3.2×10^{-5} *4*
291.7 *2*	10 *2*	706.13	(7/2$^+$)	414.17	(9/2$^+$)	[E2]	0.0458	α(K)=0.0376 *6*; α(L)=0.00651 *10*; α(M)=0.001348 *20*; α(N+..)=0.000304 *5* α(N)=0.000273 *4*; α(O)=3.13×10^{-5} *5* Mult.: assumed E2 to deduce α.
295.8 *2*	17 *2*	449.85	(5/2$^+$)	153.95	(1/2$^+$)	(E2)	0.0438	α(K)=0.0360 *5*; α(L)=0.00619 *9*; α(M)=0.001282 *19*; α(N+..)=0.000290 *5* α(N)=0.000260 *4*; α(O)=2.98×10^{-5} *5* Mult.: from α(K)exp=0.04 *1*, K/L=5 *1*.
320.4 *3*	25 *10*	734.52	(7/2$^+$,9/2$^+$)	414.17	(9/2$^+$)	(M1,E2)	0.0341 *6*	α(K)=0.0288 *9*; α(L)=0.0042 *5*; α(M)=0.00087 *10*; α(N+..)=0.000199 *20*

γ(^{121}Xe) (continued)

E_γ	I_γ [†#]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α [‡]	Comments
								α(N)=0.000178 *19*; α(O)=2.13×10^{-5} *14* Mult.: The authors deduce α(K)exp=0.06 *3*, K/L>6 by assuming mult (320.9γ)=E2.
320.9 *3*	100 *10*	560.83	(7/2$^+$)	239.74	(3/2$^+$)	[E2]	0.0337	α(K)=0.0279 *4*; α(L)=0.00465 *7*; α(M)=0.000960 *14*; α(N+..)=0.000218 *4* α(N)=0.000195 *3*; α(O)=2.25×10^{-5} *4*
^{x}337.2 *3*	7 *3*							
^{x}361.7 *3*	6 *2*							
381.2 *3*	25 *3*	560.83	(7/2$^+$)	179.48	7/2$^{(+)}$			
393.2 *3*	6 *3*	657.6	(13/2$^-$)	264.5	(11/2$^-$)			This γ is placed from 946.2 level in ^{121}Cs ε+β^+ decay (155 s).
396.6 *3*	28 *4*	592.6		196.01	7/2$^{(-)}$			
412.3 *3*	17 *4*	608.3		196.01	7/2$^{(-)}$			
414.1 *2*	83 *5*	414.17	(9/2$^+$)	0	5/2$^{(+)}$	(E2)	0.01544	α(K)=0.01296 *19*; α(L)=0.00198 *3*; α(M)=0.000406 *6*; α(N+..)=9.28×10^{-5} *13* α(N)=8.30×10^{-5} *12*; α(O)=9.81×10^{-6} *14* Mult.: from α(K)exp=0.012 *3*.
417.6 *3*	10 *2*	978.4		560.83	(7/2$^+$)			
422.9 *4*	7 *3*	657.6	(13/2$^-$)	234.52	7/2$^{(-)}$,9/2$^{(-)}$			
427.1 *2*	81 *6*	427.12	(3/2$^+$,5/2$^+$)	0	5/2$^{(+)}$	(M1,E2)	0.0153 *13*	α(K)=0.0130 *12*; α(L)=0.00180 *3*; α(M)=0.000367 *6*; α(N+..)=8.47×10^{-5} *14* α(N)=7.55×10^{-5} *12*; α(O)=9.2×10^{-6} *4* Mult.: (M1,E2)+E0? from α(K)exp=0.023 *4*, K/L=6 *2*.
431.3 *2*	17 *3*	881.15		449.85	(5/2$^+$)			
^{x}445.4 *3*	4 *1*							
450.1 *2*	3.9 *20*	449.85	(5/2$^+$)	0	5/2$^{(+)}$			
450.1 *2*	50 *4*	646.1		196.01	7/2$^{(-)}$			This γ is placed from 449.84 level in ^{121}Cs ε+β^+ decay (155 s).
459.7 *3*	460 *20*	459.50	(7/2$^+$)	0	5/2$^{(+)}$	M1	0.01372	α(K)=0.01185 *17*; α(L)=0.001501 *22*; α(M)=0.000304 *5*; α(N+..)=7.08×10^{-5} *10* α(N)=6.29×10^{-5} *9*; α(O)=7.90×10^{-6} *12* Mult.: from α(K)exp=0.016 *3*, K/L=9 *2*.
460 *1*	15 *5*	1020.8	(11/2$^+$)	560.83	(7/2$^+$)			
465.0 *3*	12 *3*	661.0		196.01	7/2$^{(-)}$			
471.7 *2*	12 *2*	667.7		196.01	7/2$^{(-)}$			
486.1 *3*	6 *3*	899.93		414.17	(9/2$^+$)			
491.0 *3*	20 *5*	670.20	(11/2$^+$)	179.48	7/2$^{(+)}$			
526.7 *2*	48 *6*	706.13	(7/2$^+$)	179.48	7/2$^{(+)}$	M1,E2	0.0088 *11*	α=0.0088 *11*; α(K)=0.0075 *10*; α(L)=0.00101 *7*; α(M)=0.000204 *12*; α(N+..)=4.7×10^{-5} *3* α(N)=4.2×10^{-5} *3*; α(O)=5.2×10^{-6} *5* Mult.: from α(K)exp=0.11 *4*.
548.8 *3*	8 *2*	998.72		449.85	(5/2$^+$)			
555.0 *3*	46 *5*	734.52	(7/2$^+$,9/2$^+$)	179.48	7/2$^{(+)}$			
571.6 *2*	25 *4*	998.72		427.12	(3/2$^+$,5/2$^+$)			
584.6 *3*	11 *2*	998.72		414.17	(9/2$^+$)			

From ENSDF

γ(^{121}Xe) (continued)

E_γ	I_γ [†#]	E_i(level)	J_i^π	E_f	J_f^π
^{x}646.8 3	12 3				
665.0 2	16 3	861.0		196.01	$7/2^{(-)}$
^{x}674.8 2	7 2				
686.3 5	8 3	1247.1		560.83	$(7/2^+)$
^{x}690.5 2	8 4				
701.1 3	8 3	897.1		196.01	$7/2^{(-)}$
706.2 2	54 7	706.13	$(7/2^+)$	0	$5/2^{(+)}$
720.1 3	13 3	899.93		179.48	$7/2^{(+)}$
730.8 2	14 3	910.23		179.48	$7/2^{(+)}$
734.5[@] 3	20[@] 6	734.52	$(7/2^+,9/2^+)$	0	$5/2^{(+)}$
734.5[@] 10	20[@] 6	1149.4		414.17	$(9/2^+)$
738.4 3	26 5	1299.56		560.83	$(7/2^+)$
^{x}797.9 4	8 2				
^{x}841.9 4	7 2				
^{x}850.5 3	10 3				
^{x}867.2 4	6 2				
872.5 3	9 2	1299.56		427.12	$(3/2^+,5/2^+)$
^{x}881.2 3	5 2				
885.7 3	14 2	1299.56		414.17	$(9/2^+)$
^{x}891.6 3	7 2				
^{x}900.2 3	8 2				
^{x}905.4 4	4 2				
910.1 3	17 3	910.23		0	$5/2^{(+)}$
^{x}914.3 3	10 2				
^{x}922.6 3	7 4				
^{x}936.6 3	12 2				

E_γ	I_γ [†#]	E_i(level)	E_f	J_f^π
^{x}949.2 3	8 3			
970.0 4	14 5	1149.4	179.48	$7/2^{(+)}$
^{x}986.3 4	6 3			
1005.2 3	11 3	1419.7	414.17	$(9/2^+)$
1035.5 4	9 4	1596.3	560.83	$(7/2^+)$
^{x}1060.3 4	8 3			
1065.5 3	22 3	1261.5	196.01	$7/2^{(-)}$
^{x}1076.7 4	8 3			
1103.6 4	17 3	1299.56	196.01	$7/2^{(-)}$
^{x}1115.0 8	7 4			
1120.0 4	9 3	1299.56	179.48	$7/2^{(+)}$
^{x}1140.3 4	30 5			
1163.9 3	15 4	1343.5	179.48	$7/2^{(+)}$
^{x}1179.8 5	5 2			
1240.9 4	6 2	1419.7	179.48	$7/2^{(+)}$
^{x}1255.2 5	6 3			
^{x}1276.4 6	10 3			
1299.4 5	8 2	1299.56	0	$5/2^{(+)}$
1343.7 5	7 3	1343.5	0	$5/2^{(+)}$
^{x}1396.2 5	7 3			
^{x}1416.5 5	10 3			
^{x}1432.7 5	40 6			
^{x}1458.0 6	8 3			
^{x}1497.7 6	8 3			
^{x}1511.1 6	8 3			

† Evaluator has removed the contribution from ^{121}Cs ε decay (155 s). Evaluator assumed no direct $\varepsilon+\beta^+$ feeding from ^{121}Cs ε decay (122 s) to the levels at 153.95 keV, 239.74 keV, 264.5 keV, 427.12 keV and 449.85 keV which are strongly fed from ^{121}Cs $3/2^{(+)}$, and also assumed no direct $\varepsilon+\beta^+$ feeding to the levels at 179.44 keV and 196.081 keV which are strongly fed from ^{121}Cs $9/2^{(+)}$ state. See ^{121}Cs ε decay (155 s).

‡ Normalized to α(K)exp=0.303 for 153.9γ (E2 theory).

\# For absolute intensity per 100 decays, multiply by 0.0261.

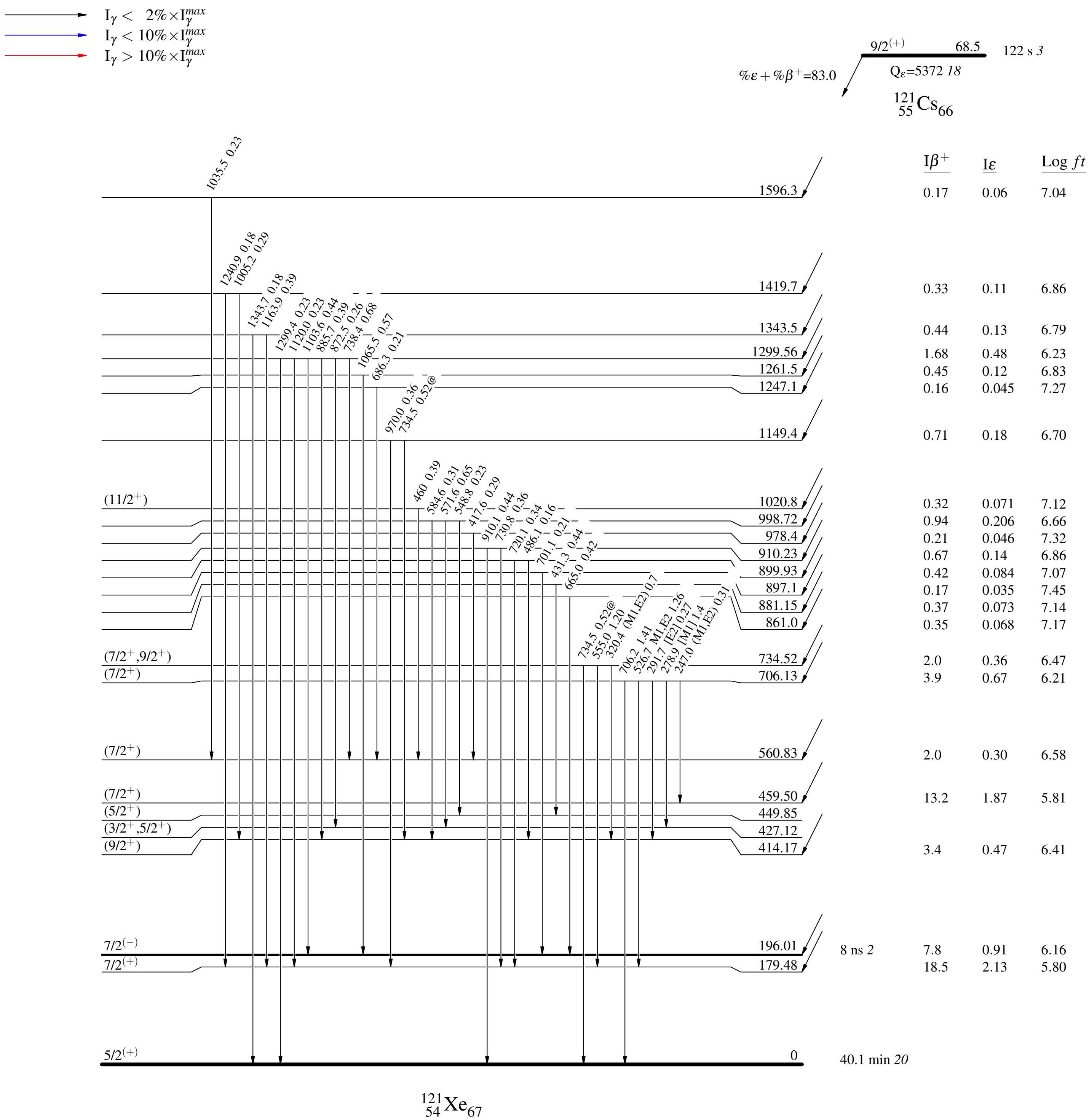
@ Multiply placed with intensity suitably divided.

^{x} γ ray not placed in level scheme.

^{121}Cs ε decay (122 s) 1991Ge02

Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
@ Multiply placed: intensity suitably divided



^{121}Cs ε decay (122 s) 1991Ge02

Decay Scheme (continued)

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
@ Multiply placed: intensity suitably divided