^{128}Cs $\varepsilon+\beta^+$ decay (3.66 min) 1979Sc06,1977He05

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Zoltan Elekes and Janos Timar	NDS 129,191 (2015)	28-Feb-2015

Parent: ^{128}Cs: E=0.0; $J^\pi=1^+$; $T_{1/2}$=3.66 min *2*; Q(ε)=3929 *5*; %ε+%β^+ decay=100
1977He05: Pr(p,spallation) E=800 MeV, chemical separation, mass separation; semi γ, $\gamma\gamma$.
1979Sc06: ^{128}Cs from ^{133}Cs(d,7n)^{128}Ba ε decay, chemical separation; semi γ, $\gamma\gamma(\theta)$.
Others: γ, $\gamma\gamma$ (1976Dr04); β^+ (1961Jh02).

$\gamma\gamma$-angular correlation coefficient (1979Sc06)

cascade (keV)	A_2	A_4	deduced spin sequence
526.6γ - 442.9γ	-0.20(4)	0.38(6)	2 - 2 - 0
1140.1γ - 442.9γ	0.37(11)	1.21(14)	0 - 2 - 0
1684.1γ - 442.9γ	0.29(17)	-0.05(22)	1,2 - 2 - 0
2155.7γ - 442.9γ	0.13(19)	1.01(27)	0 - 2 - 0
613.5γ - 526.6γ	0.06(6)	0.25(8)	0 - 2 - 2
1030.2γ - 526.6γ	-0.09(12)	-0.09(17)	1,2 - 2 - 2
1302.8γ - 526.6γ	0.06(17)	-0.04(23)	1,2 - 2 - 2
1629.1γ - 526.6γ	-0.02(19)	0.36(27)	0 - 2 - 2
613.5γ - 969.6γ	0.39(22)	0.76(29)	0 - 2 - 0

^{128}Xe Levels

E(level)†	J^π	$T_{1/2}$	E(level)†	J^π	E(level)†	J^π
0.0	0^+	stable	2421.08 *4*		2726.22 *15*	
442.911 *9*	2^+		2430.69 *4*	$(1,2^+)$	2807.00 *17*	
969.475 *12*	2^+		2443.92 *17*		2823.3 *4*	$(1,2^+)$
1033.148 *20*	4^+		2482.51 *4*	(2)	2837.59 *4*	(2^+)
1429.56 *3*	3^+		2510.71 *4*	(2)	2859.51 *5*	$(1,2^+)$
1582.976 *16*	0^+		2521.37 *6*		2876.7 *5*	
1877.32 *8*	0^+		2550.67 *18*	(≤2)	2937.81 *11*	$(1,2^+)$
1999.645 *21*	$(2)^+$		2564.78 *16*	1	3060.32 *16*	$(1,2^+)$
2127.06 *3*	$1^+,2^+,3^+$		2591.57 *4*	$(1,2^+)$	3099.59 *6*	$(1,2^+)$
2252.90 *6*			2598.58 *4*	0^+	3104.9 *3*	1
2272.85 *3*	(2^+)		2633.00 *4*	2^+	3110.51 *8*	$(1,2^+)$
2361.80 *5*	$(1,2^+)$		2718.50 *6*	$(1,2^+)$	3406.65 *19*	1

† From a least-squares fit to the Eγ's.

ε,β^+ radiations

E(decay)	E(level)	Iε‡	Log *ft*	I($\varepsilon+\beta^+$)†‡	Comments
(522 *5*)	3406.65	0.00040 *10*	7.72 *11*	0.00040 *10*	εK=0.8420 *2*; εL=0.1239 *2*; εM+=0.03411 *4*
(819 *5*)	3110.51	0.0102 *8*	6.72 *4*	0.0102 *8*	εK=0.8478; εL=0.11947 *5*; εM+=0.03271 *2*
(824 *5*)	3104.9	0.0019 *3*	7.46 *7*	0.0019 *3*	εK=0.8479; εL=0.11942 *5*; εM+=0.03269 *2*
(829 *5*)	3099.59	0.0039 *7*	7.15 *8*	0.0039 *7*	εK=0.8480; εL=0.11937 *5*; εM+=0.03267 *2*
(869 *5*)	3060.32	0.0041 *7*	7.17 *8*	0.0041 *7*	εK=0.8484; εL=0.11904 *4*; εM+=0.03257 *2*
(991 *5*)	2937.81	0.0032 *4*	7.40 *6*	0.0032 *4*	εK=0.8495; εL=0.11817 *4*; εM+=0.03229 *1*
(1052 *5*)	2876.7	0.00021 *9*	8.64 *19*	0.00021 *9*	εK=0.8500; εL=0.11782 *3*; εM+=0.032177 *9*
(1070 *5*)	2859.51	0.039 *3*	6.38 *4*	0.039 *3*	εK=0.8501; εL=0.11773 *3*; εM+=0.032147 *9*

Continued on next page (footnotes at end of table)

^{128}Cs ε+β^+ decay (3.66 min) 1979Sc06,1977He05 (continued)

ϵ,β^+ radiations (continued)

E(decay)	E(level)	Iβ^+ ‡	Iε‡	Log *ft*	I($\varepsilon+\beta^+$)†‡	Comments
(1091 *5*)	2837.59		0.042 *3*	6.37 *4*	0.042 *3*	εK=0.8503; εL=0.11761 *3*; εM+=0.032111 *8*
(1106 *5*)	2823.3		0.0011 *3*	7.96 *12*	0.0011 *3*	εK=0.8504; εL=0.11754 *3*; εM+=0.032088 *8*
(1122 *5*)	2807.00		0.014 *3*	6.87 *10*	0.014 *3*	εK=0.8505; εL=0.11746 *3*; εM+=0.032063 *8*
(1203 *5*)	2726.22		0.0040 *8*	7.47 *9*	0.0040 *8*	εK=0.8509; εL=0.11709 *3*; εM+=0.031946 *7*
(1211 *5*)	2718.50		0.0188 *18*	6.81 *5*	0.0188 *18*	εK=0.8509; εL=0.11706 *3*; εM+=0.031935 *7*
(1296 *5*)	2633.00		0.098 *7*	6.15 *4*	0.098 *7*	εK=0.8509; εL=0.11667 *3*; εM+=0.031815 *8*
(1330 *5*)	2598.58	0.00031 *3*	0.296 *19*	5.70 *3*	0.296 *19*	av Eβ=148.1 *23*; εK=0.8507; εL=0.11651 *3*; εM+=0.031764 *8*
(1337 *5*)	2591.57	7.2×10^{-5} *8*	0.063 *5*	6.37 *4*	0.063 *5*	av Eβ=151.2 *23*; εK=0.8506; εL=0.11647 *3*; εM+=0.031754 *8*
(1364 *5*)	2564.78	5.2×10^{-6} *12*	0.0032 *7*	7.68 *10*	0.0032 *7*	av Eβ=162.9 *22*; εK=0.8503; εL=0.11633 *3*; εM+=0.031711 *9*
(1378 *5*)	2550.67	5.5×10^{-6} *14*	0.0029 *7*	7.74 *11*	0.0029 *7*	av Eβ=169.3 *24*; εK=0.8502; εL=0.11625 *3*; εM+=0.031688 *9*
(1408 *5*)	2521.37	3.9×10^{-5} *4*	0.0150 *15*	7.04 *5*	0.0150 *15*	av Eβ=182.2 *22*; εK=0.8497 *1*; εL=0.11608 *4*; εM+=0.03164 *1*
(1418 *5*)	2510.71	0.00014 *1*	0.049 *4*	6.53 *4*	0.049 *4*	av Eβ=186.8 *22*; εK=0.8494 *2*; εL=0.11601 *4*; εM+=0.03162 *1*
(1447 *5*)	2482.51	0.00034 *3*	0.087 *6*	6.30 *3*	0.087 *6*	av Eβ=199.2 *22*; εK=0.8488 *2*; εL=0.11582 *4*; εM+=0.03156 *1*
(1485 *5*)	2443.92	2.9×10^{-5} *7*	0.0054 *12*	7.53 *10*	0.0054 *12*	av Eβ=216.1 *22*; εK=0.8475 *2*; εL=0.11553 *4*; εM+=0.03148 *2*
(1498 *5*)	2430.69	0.00037 *3*	0.061 *4*	6.49 *3*	0.061 *4*	av Eβ=221.8 *22*; εK=0.8470 *2*; εL=0.11543 *5*; εM+=0.03145 *2*
(1508 *5*)	2421.08	0.00031 *2*	0.047 *3*	6.61 *3*	0.047 *3*	av Eβ=226.0 *22*; εK=0.8467 *2*; εL=0.11534 *5*; εM+=0.03142 *2*
(1567 *5*)	2361.80	0.0010 *1*	0.098 *7*	6.32 *3*	0.099 *7*	av Eβ=251.9 *22*; εK=0.8438 *3*; εL=0.11478 *6*; εM+=0.03126 *2*
(1656 *5*)	2272.85	0.00242 *16*	0.133 *8*	6.24 *3*	0.135 *8*	av Eβ=290.6 *22*; εK=0.8375 *5*; εL=0.11369 *7*; εM+=0.03096 *2*
(1676 *5*)	2252.90	0.00033 *4*	0.0163 *17*	7.16 *5*	0.0166 *17*	av Eβ=299.3 *22*; εK=0.8357 *5*; εL=0.11340 *8*; εM+=0.03088 *2*
(1802 *5*)	2127.06	0.0046 *3*	0.117 *7*	6.37 *3*	0.122 *7*	av Eβ=354.3 *22*; εK=0.8213 *7*; εL=0.1112 *1*; εM+=0.03026 *3*
(1929 *5*)	1999.645	0.0165 *11*	0.249 *16*	6.10 *3*	0.266 *17*	av Eβ=410.0 *22*; εK=0.8004 *10*; εL=0.10810 *14*; εM+=0.02941 *4*
(2052 *5*)	1877.32	0.00120 *10*	0.0117 *10*	7.48 *4*	0.0129 *11*	av Eβ=463.8 *22*; εK=0.7742 *12*; εL=0.10437 *17*; εM+=0.02839 *5*
(2346 *5*)	1582.976	0.293 *16*	1.23 *6*	5.579 *24*	1.52 *8*	av Eβ=594.2 *23*; εK=0.6896 *17*; εL=0.09263 *23*; εM+=0.02518 *7* Eβ+=1300 *40* (1961Jh02).
(2499 *5*)	1429.56	0.0066 *13*	0.019 *4*	7.44 *9*	0.026 *5*	av Eβ=662.6 *23*; εK=0.6369 *18*; εL=0.08543 *25*; εM+=0.02322 *7*
(2960 *5*)	969.475	0.89 *5*	1.11 *6*	5.829 *25*	2.00 *11*	av Eβ=870.1 *23*; εK=0.4725 *17*; εL=0.06314 *23*; εM+=0.01715 *7* Eβ+=1900 *40* (1961Jh02).
(3486 *5*)	442.911	14.4 *8*	8.4 *4*	5.089 *24*	22.8 *12*	av Eβ=1111.0 *23*; εK=0.3166 *13*; εL=0.04217 *17*; εM+=0.01145 *5* Eβ+=2445 *25* (1961Jh02).
(3929 *5*)	0.0	53.2 *10*	18.9 *4*	4.843 *10*	72.1 *14*	av Eβ=1315.9 *24*; εK=0.2246 *9*; εL=0.02986 *12*; εM+=0.00811 *4* Eβ+=2885 *25* (1961Jh02).

† I($\varepsilon+\beta^+$)=72.1% 14 (to g.s.) is recalculated using Iβ^+(total)/I(442.901γ)=I(511γ)/1.92I(442.901γ)=2.56 *8* (1977He05) and theoretical ε/β^+ ratios in the decay scheme proposed by 1979Sc06 (evaluators).

‡ Absolute intensity per 100 decays.

$\gamma(^{128}Xe)$

Iγ normalization: from I($\varepsilon+\beta^+$)=72.1% 14 (to g.s.).

E$_\gamma$[†]	I$_\gamma$[#&]	E$_i$(level)	J$^\pi_i$	E$_f$	J$^\pi_f$	Mult.[@]	δ[@]	α[a]	Comments
442.901 *10*	100 *1*	442.911	2$^+$	0.0	0$^+$	E2		0.01268	α(K)=0.01068 *15*; α(L)=0.001599 *23*; α(M)=0.000328 *5*; α(N)=6.70×10^{-5} *10*; α(O)=7.96×10^{-6} *12*
460.1 *1*	0.12 *1*	1429.56	3$^+$	969.475	2$^+$	M1+E2	+7.8 *8*	0.01140	α(K)=0.00962 *14*; α(L)=0.001421 *20*; α(M)=0.000291 *4*; α(N)=5.95×10^{-5} *9*; α(O)=7.10×10^{-6} *10* Mult.,δ: from Adopted Gammas.
526.557 *14*	9.0 *1*	969.475	2$^+$	442.911	2$^+$	M1+E2	+6 *4*	0.0078 *4*	α(K)=0.0067 *4*; α(L)=0.000949 *25*; α(M)=0.000194 *5*; α(N)=3.97×10^{-5} *11*; α(O)=4.78×10^{-6} *17*
590.24 *2*	0.27 *3*	1033.148	4$^+$	442.911	2$^+$	(E2)		0.00573	α(K)=0.00488 *7*; α(L)=0.000681 *10*; α(M)=0.0001388 *20*; α(N)=2.85×10^{-5} *4*; α(O)=3.45×10^{-6} *5* E$_\gamma$: from 1977He05; Eγ=590.071 *36* reported by 1979Sc06 is inconsistent with energy-sum relation.
613.493 *13*	1.31 *4*	1582.976	0$^+$	969.475	2$^+$	E2		0.00518	α(K)=0.00441 *7*; α(L)=0.000611 *9*; α(M)=0.0001246 *18*; α(N)=2.56×10^{-5} *4*; α(O)=3.11×10^{-6} *5*
^{x}897[‡b] *1*	0.02 *1*								
966.48 *4*	0.13 *1*	1999.645	(2)$^+$	1033.148	4$^+$				
969.458 *20*	2.35 *7*	969.475	2$^+$	0.0	0$^+$	E2		1.73×10^{-3}	α(K)=0.001494 *21*; α(L)=0.000192 *3*; α(M)=3.89×10^{-5} *6*; α(N)=8.04×10^{-6} *12*; α(O)=9.96×10^{-7} *14*
986.64 *3*	0.11 *1*	1429.56	3$^+$	442.911	2$^+$				
^{x}1001[‡b] *1*	0.02 *1*								
1030.170 *21*	0.81 *4*	1999.645	(2)$^+$	969.475	2$^+$	M1+E2	+3.4 *2*	1.56×10^{-3} *2*	α(K)=0.001344 *20*; α(L)=0.0001711 *25*; α(M)=3.46×10^{-5} *5*; α(N)=7.15×10^{-6} *11* α(O)=8.89×10^{-7} *13* Mult.,δ: from Adopted Gammas.
1081.11 *5*	0.060 *4*	2510.71	(2)	1429.56	3$^+$				
^{x}1118[‡b] *1*	0.012 *3*								
1140.079 *23*	4.36 *4*	1582.976	0$^+$	442.911	2$^+$	E2		1.23×10^{-3}	α(K)=0.001057 *15*; α(L)=0.0001337 *19*; α(M)=2.70×10^{-5} *4*; α(N)=5.58×10^{-6} *8*; α(O)=6.95×10^{-7} *10*
1157.54 *7*	0.027 *4*	2127.06	1$^+$,2$^+$,3$^+$	969.475	2$^+$				
1162.02 *6*	0.036 *5*	2591.57	(1,2$^+$)	1429.56	3$^+$				
1203.5 *1*	0.027 *4*	2633.00	2$^+$	1429.56	3$^+$				
1239.75 *6*	0.045 *6*	2272.85	(2$^+$)	1033.148	4$^+$				
1283.41 *6*	0.036 *5*	2252.90		969.475	2$^+$				
1303.355 *27*	0.435 *15*	2272.85	(2$^+$)	969.475	2$^+$	(M1)		1.20×10^{-3}	α(K)=0.001021 *15*; α(L)=0.0001252 *18*; α(M)=2.53×10^{-5} *4*; α(N)=5.24×10^{-6} *8*; α(O)=6.60×10^{-7} *10*

$^{128}_{54}Xe_{74}$-3

$\gamma(^{128}$Xe) (continued)

E_γ[†]	I_γ[#&]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	δ[@]	α[a]	Comments
[x]1376.3 *3*	0.030 *5*								
1392.31 *15*	0.051 *6*	2361.80	(1,2$^+$)	969.475	2$^+$				
1409 *1*	0.013 *3*	2837.59	(2$^+$)	1429.56	3$^+$				
1434.40 *8*	0.048 *3*	1877.32	0$^+$	442.911	2$^+$				
1461.19 *4*	0.108 *7*	2430.69	(1,2$^+$)	969.475	2$^+$				
1474.42 *18*	0.018 *4*	2443.92		969.475	2$^+$				
1477.66 *9*	0.033 *5*	2510.71	(2)	1033.148	4$^+$				E_γ: from 1977He05; $E\gamma$=1477.0 *2* reported by 1979Sc06 is inconsistent with energy-sum relation.
1488.8 *6*	0.005 *2*	2521.37		1033.148	4$^+$				
1513.01 *4*	0.195 *7*	2482.51	(2)	969.475	2$^+$				
[x]1514.5[‡b] *10*	0.005 *3*								
1541.21 *6*	0.066 *5*	2510.71	(2)	969.475	2$^+$				
1552.3 *1*	0.006 *2*	2521.37		969.475	2$^+$				
1556.71 *7*	0.050 *3*	1999.645	(2)$^+$	442.911	2$^+$				
1599.8 *2*	0.017 *3*	2633.00	2$^+$	1033.148	4$^+$				
1629.07 *4*	0.504 *10*	2598.58	0$^+$	969.475	2$^+$	(E2)		7.29×10^{-4}	α(K)=0.000520 *8*; α(L)=6.39×10^{-5} *9*; α(M)=1.289×10^{-5} *18*; α(N)=2.67×10^{-6} *4*; α(O)=3.34×10^{-7} *5*
1663.49 *5*	0.091 *5*	2633.00	2$^+$	969.475	2$^+$				
[x]1678.5 *2*	0.016 *4*								
1684.14 *3*	0.43 *1*	2127.06	1$^+$,2$^+$,3$^+$	442.911	2$^+$	M1(+E2)	+0.08 *6*	8.22×10^{-4}	α(K)=0.000584 *9*; α(L)=7.12×10^{-5} *10*; α(M)=1.435×10^{-5} *21*; α(N)=2.98×10^{-6} *5*; α(O)=3.75×10^{-7} *6* Mult.,δ: from Adopted Gammas.
1749.0 *4*	0.012 *4*	2718.50	(1,2$^+$)	969.475	2$^+$				
1756 *1*	0.003 *2*	2726.22		969.475	2$^+$				
[x]1795.6 *4*	0.005 *2*								
1804.04 *17*	0.021 *3*	2837.59	(2$^+$)	1033.148	4$^+$				
1810.0 *2*	0.026 *2*	2252.90		442.911	2$^+$				
1829.9 *1*	0.024 *3*	2272.85	(2$^+$)	442.911	2$^+$				
1837.5 *2*	0.013 *3*	2807.00		969.475	2$^+$				
[x]1858.9 *4*	0.008 *3*								
1867.96 *14*	0.024 *3*	2837.59	(2$^+$)	969.475	2$^+$				
1918.87 *5*	0.141 *7*	2361.80	(1,2$^+$)	442.911	2$^+$				
1978.15 *4*	0.176 *7*	2421.08		442.911	2$^+$				
1987.80 *7*	0.099 *5*	2430.69	(1,2$^+$)	442.911	2$^+$				
1999.7 *4*	0.003 *1*	1999.645	(2)$^+$	0.0	0$^+$				
2001.1 *4*	0.002 *1*	2443.92		442.911	2$^+$				
2039.56 *5*	0.119 *9*	2482.51	(2)	442.911	2$^+$				
[x]2063[‡b] *1*	0.003 *2*								
2067.7 *1*	0.013 *2*	2510.71	(2)	442.911	2$^+$				
2078.23 *7*	0.045 *4*	2521.37		442.911	2$^+$				
2090.85 *26*	0.010 *2*	3060.32	(1,2$^+$)	969.475	2$^+$				

$^{128}_{54}$Xe$_{74}$-4

γ(^{128}Xe) (continued)

E_γ[†]	I_γ[#&]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[@]	α[a]	Comments
2107.8 *2*	0.008 *2*	2550.67	(≤2)	442.911	2+			
2121.8 *5*	0.004 *2*	2564.78	1	442.911	2+			
2129.5 *3*	0.008 *2*	3099.59	(1,2+)	969.475	2+			
2141.06 *10*	0.026 *2*	3110.51	(1,2+)	969.475	2+			
2148.64 *5*	0.177 *12*	2591.57	(1,2+)	442.911	2+			
2155.68 *5*	0.60 *4*	2598.58	0+	442.911	2+	E2	7.28×10^{-4}	α(K)=0.000310 *5*; α(L)=3.75×10^{-5} *6*; α(M)=7.55×10^{-6} *11*; α(N)=1.564×10^{-6} *22*; α(O)=1.97×10^{-7} *3*
2190.08 *5*	0.206 *14*	2633.00	2+	442.911	2+			
ˣ2232.40 *18*	0.010 *2*							
ˣ2255.2 *2*	0.005 *2*							
2275.57 *6*	0.055 *4*	2718.50	(1,2+)	442.911	2+			
2283.30 *15*	0.012 *2*	2726.22		442.911	2+			
ˣ2314.9 *4*	0.003 *1*							
ˣ2326.8 *4*	0.002 *1*							
ˣ2348.4 *3*	0.004 *1*							
2361.8 *1*	0.176 *15*	2361.80	(1,2+)	0.0	0+			
2364.1 *3*	0.040 *10*	2807.00		442.911	2+			
2380.8 *5*	0.003 *1*	2823.3	(1,2+)	442.911	2+			
2394.51 *5*	0.080 *4*	2837.59	(2+)	442.911	2+			
2416.58 *5*	0.125 *8*	2859.51	(1,2+)	442.911	2+			
2430.70 *8*	0.022 *2*	2430.69	(1,2+)	0.0	0+			
ˣ2467.0 *3*	0.004 *1*							
2482.7 *1*	0.011 *1*	2482.51	(2)	0.0	0+			
2494 *1*	0.0009 *3*	2937.81	(1,2+)	442.911	2+			
2510.78 *9*	0.012 *1*	2510.71	(2)	0.0	0+			
2550.4 *4*	0.003 *1*	2550.67	(≤2)	0.0	0+			
2564.76 *16*	0.008 *1*	2564.78	1	0.0	0+			
2591.54 *8*	0.021 *2*	2591.57	(1,2+)	0.0	0+			
2617.1 *2*	0.005 *1*	3060.32	(1,2+)	442.911	2+			
2632.94 *8*	0.023 *2*	2633.00	2+	0.0	0+			E_γ: from 1977He05; Eγ=2633.9 *2* reported by 1979Sc06 is inconsistent with energy-sum relation.
2656.68 *6*	0.006 *1*	3099.59	(1,2+)	442.911	2+			
2662 *1*	0.002 *1*	3104.9	1	442.911	2+			
2667.52 *10*	0.012 *1*	3110.51	(1,2+)	442.911	2+			
ˣ2683.5 *4*	0.0007 *4*							
2718.5 *2*	0.003 *1*	2718.50	(1,2+)	0.0	0+			
ˣ2723.9 *3*	0.003 *1*							
ˣ2747[‡b] *1*	0.008 *1*							
ˣ2796.8 *4*	0.0016 *4*							
ˣ2814.8 *4*	0.0013 *5*							
2823.0 *4*	0.0011 *4*	2823.3	(1,2+)	0.0	0+			

$^{128}_{54}$Xe$_{74}$-5

γ(^{128}Xe) (continued)

E_γ[†]	I_γ[#&]	E_i(level)	J^π_i	E_f	J^π_f	Comments
2838.07 *8*	0.0194 *15*	2837.59	(2$^+$)	0.0	0$^+$	E_γ: other: 2837.64 *9* (1977He05).
2859.47 *8*	0.0208 *15*	2859.51	(1,2$^+$)	0.0	0$^+$	
2876.7 *5*	0.0008 *3*	2876.7		0.0	0$^+$	
[x]2893[‡b] *1*	0.0003 *2*					
2937.79 *11*	0.011 *1*	2937.81	(1,2$^+$)	0.0	0$^+$	
2963.7 *5*	0.0007 *3*	3406.65	1	442.911	2$^+$	
3061.9 *5*	0.0004 *2*	3060.32	(1,2$^+$)	0.0	0$^+$	
3099.2 *6*	0.0006 *2*	3099.59	(1,2$^+$)	0.0	0$^+$	
3104.9 *3*	0.0050 *4*	3104.9	1	0.0	0$^+$	
3110 *1*	0.00013 *7*	3110.51	(1,2$^+$)	0.0	0$^+$	
[x]3125[‡b] *1*	0.00008 *6*					
[x]3167.2 *1*	0.0009 *1*					
[x]3204[‡b] *1*	0.00007 *7*					
3406.6 *2*	0.0008 *2*	3406.65	1	0.0	0$^+$	
[x]3493[‡b] *1*	0.0003 *1*					

[†] From 1979Sc06, except noted otherwise; the evaluators have added 0.002% of $E\gamma$'s in quadrature to the uncertainties given by 1979Sc06 to account for the uncertainty in calibration.

[‡] Tentatively assigned to ^{128}Cs ε decay by 1979Sc06.

[#] Relative to I(442.901γ)=100 (1979Sc06).

[@] Based on $\gamma\gamma(\theta)$ of 1979Sc06, unless otherwise noted.

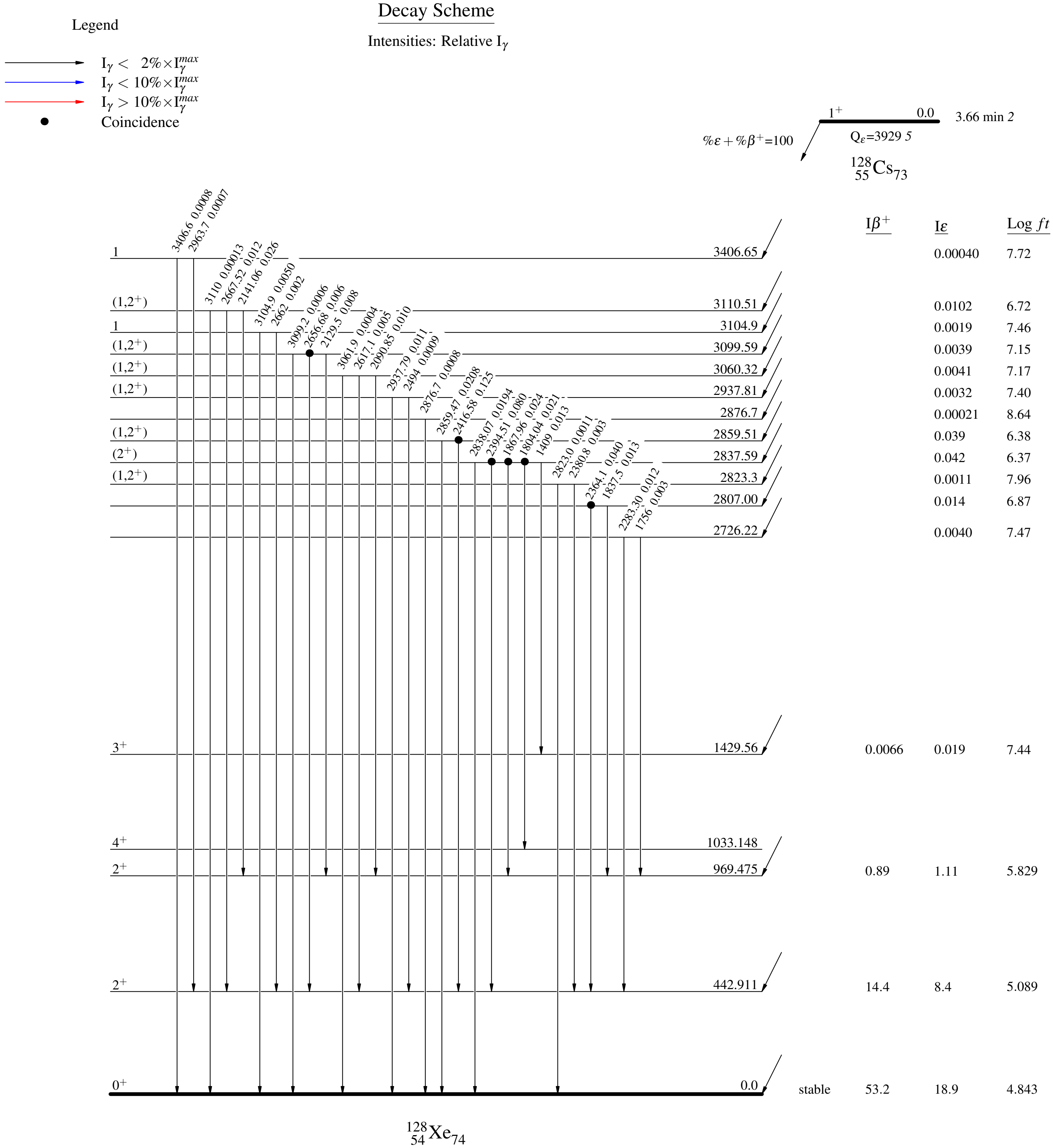
[&] For absolute intensity per 100 decays, multiply by 0.268 *13*.

[a] 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.

[b] Placement of transition in the level scheme is uncertain.

[x] γ ray not placed in level scheme.

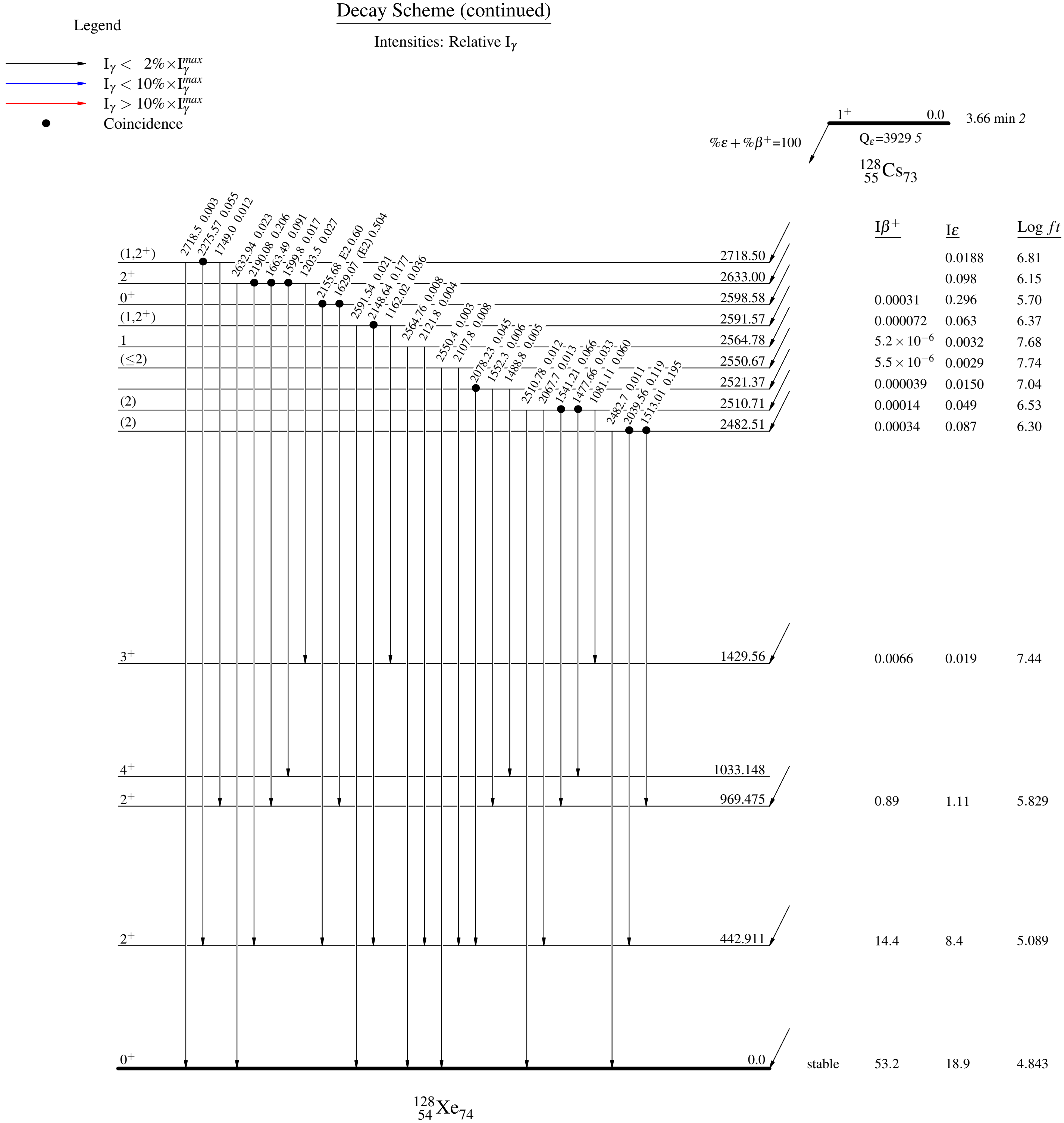
^{128}Cs ε decay (3.66 min) 1979Sc06,1977He05



^{128}Cs ε decay (3.66 min) 1979Sc06,1977He05

Decay Scheme (continued)

Intensities: Relative I_γ



^{128}Cs ε decay (3.66 min) 1979Sc06,1977He05

Decay Scheme (continued)

Intensities: Relative I_γ