^{75}Kr ε decay (4.60 min) 1995BeZS,1974Ho35,1974Ro12

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Alexandru Negret, Balraj Singh	NDS 114, 841 (2013)	30-Jun-2013

Parent: ^{75}Kr: E=0.0; J$^\pi$=5/2$^+$; T$_{1/2}$=4.60 min *7*; Q(ε)=4783 *9*; %ε+%β^+ decay=100.0

^{75}Kr-J$^\pi$,T$_{1/2}$: From ^{75}Kr Adopted Levels.

^{75}Kr-Q(ε): From 2012Wa38. The value measured by 1995BeZS is 4454 *+105−64*.

1995BeZS: Measured Eγ, Iγ, $\gamma\gamma$, ce, half-life using HPGe detectors, a mini-orange electron spectrometer for the determination of internal conversion coefficients, and a positron annihilator. ^{75}Kr source prepared in ^{58}Ni(^{20}Ne,2pn) reaction at 4.2 MeV/nucleon beam energy from GSI Unilac accelerator followed by mass separation.

1974Ho35 (also 1973HoYM thesis): Measured Eγ, Iγ, $\gamma\gamma$, ce. A total of 32 γ rays reported placed amongst 15 excited states. ^{75}Kr produced in ^{79}Br(p,5n) E=65 MeV reaction; Kr gas separated from other elements by cold traps. No information was deduced from ce data.

1974Ro12 (also 1974Ro11): Measured Eγ, Iγ, $\gamma\gamma$, ce, Eβ ^{75}Kr formed in Zr(p,5pxn) E=600 MeV reaction at CERN-ISOLDE facility followed by mass separation. A total of 16 γ rays reported with ce data for three γ transitions. A 6.5-keV γ ray reported belongs to the decay of ^{75}Br to ^{75}Se. Measured level lifetimes by $\gamma\gamma$(t).

Others: 1975CoZR, 1973DaYM, 1969Ha03, 1960Gr19, 1960Bu22.

Measured annihilation radiation intensity: 250 *50* (1975CoZR). Other: 607 *60* (1974Ho35).

Most data given here are from 1995BeZS. The level scheme originally proposed in 1974Ho35 and 1974Ro12 has been extended and greatly modified based on their detailed $\gamma\gamma$ coincidence measurements.

^{75}Br Levels

The following levels reported in 1974Ho35 have not been confirmed in the more detailed $\gamma\gamma$-coin study of 1995BeZS, thus have been omitted: 285.7, 782.0, 793.1, 824.7, 2042.5 and 2958.7 keV. The gamma rays shown from these levels have either been relocated by 1995BeZS or have not been seen.

A 507.2 level proposed in 1974Ro12 is omitted with the relocation of 352-keV gamma ray as a ground-state transition from 352 level.

E(level)†	J$^\pi$‡	T$_{1/2}$	Comments
0.0	3/2$^-$	96.7 min *13*	T$_{1/2}$: from Adopted Levels.
119.84 *15*	5/2$^-$		
132.50 *15*	(5/2)$^+$	5.6 ns *4*	T$_{1/2}$: from $\gamma\gamma$(t) (1974Ro12) with a NaI(Tl)-NaI(Tl) combination. Other: 6.5 ns *8* (1974Ro12) with Ge(Li)-NaI(Tl) combination.
154.68 *14*	(3/2)$^+$		
179.40 *25*	(1/2$^-$)		
220.82 *19*	(9/2)$^+$	31.7 ns *3*	T$_{1/2}$: from Adopted Levels. No transition to the g.s. was observed by 1995BeZS. The 221 keV gamma is a sum peak from 132.5 and 88.5 keV lines. 1974Ro12 listed the energy as 220.9 *3* with Iγ=0.18 *8*.
273.23 *25*	(1/2,3/2)$^-$		J$^\pi$: (3/2$^-$) in 1995BeZS.
295.6 *3*	(3/2,5/2)$^-$		
352.42 *19*	(5/2)$^-$		J$^\pi$: (3/2$^-$,5/2$^-$) in 1995BeZS.
374.20 *17*	(7/2)$^+$		
518.26 *20*	(7/2$^-$)		
524.3 *5*			
701.6 *4*			
735.6 *3*			
774.3 *4*	(9/2$^-$)		
777.45 *20*			
802.5 *4*			
819.95 *22*			
833.2 *4*			
848.21 *24*	(9/2$^+$)		
901.09 *16*	(3/2,5/2)		

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^{75}Kr ε decay (4.60 min) 1995BeZS,1974Ho35,1974Ro12 (continued)

^{75}Br Levels (continued)

E(level)[†]	Jπ[‡]	Comments
928.9 *4*		
947.02 *22*		
1023.4 *4*		
1047.81 *22*		
1072.59 *20*	(5/2+,7/2)	
1145.47 *23*		
1178.5 *4*		
1223.6 *4*		
1226.3 *4*		
1240.0 *4*		
1447.4 *4*		
1500.54 *22*	(3/2+,5/2,7/2+)	Jπ: (3/2,5/2)+ in 1995BeZS.
1601.62 *14*	(3/2+,5/2+)	
1612.26 *19*	(5/2,7/2)+	
1636.0 *4*		Jπ: (3/2,5/2)+ in 1995BeZS.
1744.7 *3*		Jπ: (3/2,5/2)+ in 1995BeZS.
1789.2 *4*		
1801.37 *21*		
2123.5 *4*		
2208.2 *3*	(3/2,5/2)	

† From least-squares fit to Eγ data. Reduced χ^2=0.49.
‡ From Adopted Levels.

ε,β+ radiations

E(decay)	E(level)	Iβ+ [†]	Iε[†]	Log *ft*	I(ε+β+)[†]	Comments
(2575 9)	2208.2	0.117 *11*	0.042 *4*	6.48 *5*	0.159 *15*	av Eβ=682.0 *41*; εK=0.230 *4*; εL=0.0265 *4*; εM+=0.00530 *8*
(2660 9)	2123.5	0.054 *15*	0.016 *5*	6.92 *13*	0.070 *20*	av Eβ=720.5 *41*; εK=0.203 *3*; εL=0.0233 *4*; εM+=0.00467 *7*
(2982 9)	1801.37	0.511 *18*	0.088 *3*	6.289 *19*	0.599 *21*	av Eβ=867.9 *42*; εK=0.1287 *16*; εL=0.01477 *19*; εM+=0.00296 *4*
(2994 9)	1789.2	0.089 *8*	0.0150 *13*	7.06 *4*	0.104 *9*	av Eβ=873.6 *42*; εK=0.1266 *16*; εL=0.01453 *18*; εM+=0.00291 *4*
(3038 9)	1744.7	0.397 *16*	0.062 *3*	6.454 *20*	0.459 *18*	av Eβ=894.1 *42*; εK=0.1193 *15*; εL=0.01369 *17*; εM+=0.00274 *4*
(3147 9)	1636.0	0.072 *9*	0.0097 *12*	7.29 *6*	0.082 *10*	av Eβ=944.3 *42*; εK=0.1036 *12*; εL=0.01189 *14*; εM+=0.00238 *3*
(3171 9)	1612.26	2.85 *9*	0.368 *13*	5.720 *17*	3.22 *10*	av Eβ=955.3 *42*; εK=0.1005 *12*; εL=0.01153 *14*; εM+=0.00231 *3*
(3181 9)	1601.62	5.47 *11*	0.696 *17*	5.446 *13*	6.17 *12*	av Eβ=960.2 *42*; εK=0.0992 *12*; εL=0.01138 *13*; εM+=0.00228 *3*
(3282 9)	1500.54	1.75 *6*	0.193 *7*	6.030 *19*	1.94 *7*	av Eβ=1007.2 *42*; εK=0.0875 *10*; εL=0.01003 *12*; εM+=0.002008 *23*
(3336 9)	1447.4	0.103 *12*	0.0106 *12*	7.30 *5*	0.114 *13*	av Eβ=1031.9 *42*; εK=0.0820 *9*; εL=0.00941 *11*; εM+=0.001883 *21*
(3543 9)	1240.0	0.082 *8*	0.0065 *7*	7.57 *5*	0.088 *9*	av Eβ=1128.7 *43*; εK=0.0645 *7*; εL=0.00740 *8*; εM+=0.001480 *15*
(3557 9)	1226.3	0.108 *10*	0.0084 *8*	7.46 *5*	0.116 *11*	av Eβ=1135.2 *43*; εK=0.0636 *7*; εL=0.00728 *8*; εM+=0.001458 *15*
(3559 9)	1223.6	0.133 *9*	0.0103 *7*	7.37 *4*	0.143 *10*	av Eβ=1136.4 *43*; εK=0.0634 *7*; εL=0.00726 *8*; εM+=0.001453 *15*

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^{75}Kr ε decay (4.60 min) 1995BeZS,1974Ho35,1974Ro12 (continued)

ε,β^+ radiations (continued)

E(decay)	E(level)	Iβ^+ †	Iε†	Log *ft*	I(ε+β^+)†	Comments
(3605 *9*)	1178.5	0.080 *9*	0.0059 *7*	7.63 *6*	0.086 *10*	av Eβ=1157.6 *43*; εK=0.0603 *6*; εL=0.00691 *7*; εM+=0.001383 *14*
(3638 *9*)	1145.47	0.204 *17*	0.0144 *12*	7.25 *4*	0.218 *18*	av Eβ=1173.1 *43*; εK=0.0582 *6*; εL=0.00667 *7*; εM+=0.001334 *14*
(3710 *9*)	1072.59	0.527 *23*	0.0343 *15*	6.887 *21*	0.561 *24*	av Eβ=1207.3 *43*; εK=0.0538 *6*; εL=0.00616 *6*; εM+=0.001234 *12*
(3735 *9*)	1047.81	0.66 *3*	0.042 *2*	6.808 *21*	0.70 *3*	av Eβ=1218.9 *43*; εK=0.0524 *5*; εL=0.00601 *6*; εM+=0.001202 *12*
(3760‡ *9*)	1023.4	0.050 *7*	0.0031 *4*	7.95 *6*	0.053 *7*	av Eβ=1230.4 *43*; εK=0.0511 *5*; εL=0.00585 *6*; εM+=0.001171 *11*
(3836 *9*)	947.02	0.22 *3*	0.012 *2*	7.36 *6*	0.23 *3*	av Eβ=1266.4 *43*; εK=0.0472 *5*; εL=0.00541 *5*; εM+=0.001083 *10*
(3854 *9*)	928.9	0.249 *18*	0.0139 *10*	7.31 *4*	0.263 *19*	av Eβ=1274.9 *43*; εK=0.0464 *5*; εL=0.00531 *5*; εM+=0.001063 *10*
(3882 *9*)	901.09	0.54 *5*	0.029 *3*	7.00 *4*	0.57 *5*	av Eβ=1288.1 *43*; εK=0.0451 *4*; εL=0.00517 *5*; εM+=0.001034 *10*
(3935 *9*)	848.21	0.223 *19*	0.0114 *10*	7.42 *4*	0.234 *20*	av Eβ=1313.0 *43*; εK=0.0428 *4*; εL=0.00490 *5*; εM+=0.000981 *9* I(ε+β^+): log *ft*=7.42 from 5/2$^+$ parent is too low. The direct ε+β^+ feeding is incorrect if J$^\pi$(848)=9/2$^+$.
(3950 *9*)	833.2	0.030 *8*	0.0015 *4*	8.31 *12*	0.031 *8*	av Eβ=1320.1 *43*; εK=0.0422 *4*; εL=0.00483 *5*; εM+=0.000966 *9*
(3963 *9*)	819.95	0.24 *3*	0.012 *1*	7.41 *6*	0.25 *3*	av Eβ=1326.4 *43*; εK=0.0416 *4*; εL=0.00477 *5*; εM+=0.000954 *9*
(3981‡ *9*)	802.5	0.108 *10*	0.0053 *5*	7.76 *4*	0.113 *10*	av Eβ=1334.6 *43*; εK=0.0409 *4*; εL=0.00469 *5*; εM+=0.000938 *9*
(4006 *9*)	777.45	0.82 *6*	0.039 *3*	6.90 *4*	0.86 *6*	av Eβ=1346.5 *43*; εK=0.0399 *4*; εL=0.00457 *4*; εM+=0.000915 *8*
(4009 *9*)	774.3	0.117 *10*	0.0056 *5*	7.74 *4*	0.123 *10*	av Eβ=1348.0 *43*; εK=0.0398 *4*; εL=0.00456 *4*; εM+=0.000912 *8*
(4047‡ *9*)	735.6	<0.013	<0.00061	>8.7	<0.014	av Eβ=1366.3 *43*; εK=0.0384 *4*; εL=0.00439 *4*; εM+=0.000879 *8*
(4081 *9*)	701.6	0.056 *6*	0.0025 *3*	8.12 *5*	0.058 *6*	av Eβ=1382.4 *43*; εK=0.0371 *4*; εL=0.00425 *4*; εM+=0.000851 *8*
(4259 *9*)	524.3	0.107 *10*	0.0040 *4*	7.94 *4*	0.111 *10*	av Eβ=1466.5 *43*; εK=0.0316 *3*; εL=0.00361 *3*; εM+=0.000723 *6*
(4265 *9*)	518.26	0.030 *18*	0.0011 *7*	8.5 *3*	0.031 *19*	av Eβ=1469.4 *43*; εK=0.0314 *3*; εL=0.00360 *3*; εM+=0.000719 *6*
(4409 *9*)	374.20	5.92 *21*	0.192 *7*	6.289 *18*	6.11 *22*	av Eβ=1537.9 *43*; εK=0.02769 *22*; εL=0.003169 *25*; εM+=0.000634 *5*
(4431 *9*)	352.42	0.18 *5*	0.0059 *15*	7.81 *12*	0.19 *5*	av Eβ=1548.3 *43*; εK=0.02718 *21*; εL=0.003111 *24*; εM+=0.000622 *5*
(4487 *9*)	295.6	0.119 *18*	0.0036 *6*	8.03 *7*	0.123 *19*	av Eβ=1575.4 *43*; εK=0.02590 *20*; εL=0.002965 *23*; εM+=0.000593 *5*
(4510 *9*)	273.23	0.332 *24*	0.0099 *7*	7.60 *4*	0.342 *25*	av Eβ=1586.0 *43*; εK=0.02542 *20*; εL=0.002910 *22*; εM+=0.000582 *5*
(4562‡ *9*)	220.82	<0.5	<0.01	>7.5	<0.5	av Eβ=1611.1 *43*; εK=0.02434 *18*; εL=0.002786 *21*; εM+=0.000558 *5*
(4604 *9*)	179.40	0.248 *19*	0.0163 *13*	9.31^{1u} *4*	0.264 *20*	av Eβ=1643.9 *43*; εK=0.0542 *5*; εL=0.00624 *5*; εM+=0.001250 *10*
(4628 *9*)	154.68	38.5 *14*	1.04 *4*	5.600 *18*	39.5 *14*	av Eβ=1642.7 *43*; εK=0.02307 *17*; εL=0.002640 *20*; εM+=0.000528 *4*
(4651 *9*)	132.50	34 *4*	0.90 *10*	5.66 *5*	35 *4*	av Eβ=1653.3 *43*; εK=0.02266 *17*; εL=0.002593 *19*; εM+=0.000519 *4*

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^{75}Kr ε decay (4.60 min) 1995BeZS,1974Ho35,1974Ro12 (continued)

ϵ,β^+ radiations (continued)

E(decay)	E(level)	Iβ^+ †	Iε†	Log *ft*	I($\varepsilon+\beta^+$)†	Comments
(4663 *9*)	119.84	0.57 *11*	0.015 *3*	7.45 *9*	0.58 *11*	av Eβ=1659.3 *43*; εK=0.02243 *17*; εL=0.002567 *19*; εM+=0.000514 *4*

† Absolute intensity per 100 decays.

‡ Existence of this branch is questionable.

γ(^{75}Br)

Iγ normalization: The Iγ values in 1995BeZS are normalized to 100 disintegrations of ^{75}Kr.

Following γ rays reported by 1974Ho35 have not been seen in 1995BeZS: Eγ=692.8 *4*, Iγ=0.07 *6* placed from an 824.7 level; Eγ=698.2 *4*, Iγ=0.26 *3* placed from 1072.5 level; Eγ=787.6 *4*, Iγ=0.39 *4* placed from 1612.3 level; Eγ=1356.9 *5*, Iγ=0.39 *6* placed from a 2958.7 level. These γ rays have been omitted here.

E_γ[‡]	I_γ[‡h]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ[#g]	α[†]	Comments
22.2 *1*	2.3 *1*	154.68	(3/2)$^+$	132.50	(5/2)$^+$	(M1)		8.61 *17*	α(K)=7.60 *15*; α(L)=0.865 *17*; α(M)=0.138 *3*; α(N)=0.01266 *25* E_γ: average of 22.3 *3* (1995BeZS), 22.1 *2* (1974Ho35), 22.2 *1* (1974Ro12). Mult.: E1 or M1 from intensity balance; M1 is required by ΔJ^π. Additional information 3.
35.2 *3*	0.041 *6*	154.68	(3/2)$^+$	119.84	5/2$^-$	[E1]		1.80 *6*	α(K)=1.59 *5*; α(L)=0.180 *6*; α(M)=0.0281 *9*; α(N)=0.00244 *7*
88.4[a] *1*	3.04 *17*	220.82	(9/2)$^+$	132.50	(5/2)$^+$	E2		1.388	α(K)=1.179 *18*; α(L)=0.179 *3*; α(M)=0.0283 *5*; α(N)=0.00233 *4* α(K)exp=1.5 *2*; α(L)exp=0.26 *4*; α(M)exp=0.022 *5* E_γ: average of 88.5 *3* (1995BeZS), 88.4 *2* (1974Ho35), 88.4 *1* (1974Ro12). Mult.: E2 or M2 from ce data, but E2 from RUL. Additional information 6.
119.6 *2*	1.80 *9*	119.84	5/2$^-$	0.0	3/2$^-$	M1+E2	0.26 *8*	0.095 *16*	α(K)=0.083 *14*; α(L)=0.0098 *19*; α(M)=0.0016 *3*; α(N)=0.000140 *25* α(K)exp=0.084 *14* E_γ: average of 119.6 *3* (1995BeZS), 119.6 *3* (1974Ho35), 119.5 *2* (1974Ro12). Additional information 1.
132.5 *2*	70 *3*	132.50	(5/2)$^+$	0.0	3/2$^-$	E1		0.0366	α(K)=0.0326 *5*; α(L)=0.00347 *5*; α(M)=0.000547 *8*; α(N)=5.01×10^{-5} *8* α(K)exp=0.032 *5*; α(L)exp=0.0039 *6*; α(M)exp=0.0005 *1* E_γ: average of 132.5 *3* (1995BeZS), 132.5 *2* (1974Ho35), 132.5 *2* (1974Ro12). Additional information 2.
153.3 *2*	6.3 *2*	374.20	(7/2)$^+$	220.82	(9/2)$^+$	M1(+E2)	<0.2	0.039 *3*	α(K)=0.0345 *25*; α(L)=0.0038 *4*; α(M)=0.00061 *5*; α(N)=5.6×10^{-5} *5* α(K)exp=0.032 *5*; α(L)exp=0.0044 *11* E_γ: average of 153.3 *3* (1995BeZS), 153.2 *3* (1974Ho35), 153.3 *2* (1974Ro12). Additional information 10.
154.6 *2*	21.1 *8*	154.68	(3/2)$^+$	0.0	3/2$^-$	E1		0.0232	α(K)=0.0206 *3*; α(L)=0.00219 *4*; α(M)=0.000346 *5*; α(N)=3.18×10^{-5} *5* α(K)exp=0.022 *4*; α(L)exp=0.0029 *7* E_γ: average of 154.7 *3* (1995BeZS), 154.5 *3* (1974Ho35), 154.7 *2* (1974Ro12). Additional information 4.

$^{75}_{35}$Br$_{40}$-5

γ(^{75}Br) (continued)

E$_\gamma$[‡]	I$_\gamma$[‡h]	E$_i$(level)	J$^\pi_i$	E$_f$	J$^\pi_f$	Mult.[#]	δ[#g]	α[†]	Comments
179.36[@] *10*	0.352 *18*	179.40	(1/2$^-$)	0.0	3/2$^-$	(M1)		0.0240	α(K)=0.0213 *3*; α(L)=0.00232 *4*; α(M)=0.000370 *6*; α(N)=3.44×10^{-5} *5* α(K)exp=0.015 *13* E$_\gamma$: from spectrum obtained with a high-resolution planar detector (appendix B3, p111 in 1995BeZS). Mult.: M1 or E1 from α(K)exp. log *ft* supports negative parity for J=1/2 for 179.4 level. Additional information 5.
219.4[&] *3*	0.226 *13*	374.20	(7/2)$^+$	154.68	(3/2)$^+$	(E2)		0.0484	α(K)=0.0425 *7*; α(L)=0.00501 *8*; α(M)=0.000793 *12*; α(N)=7.07×10^{-5} *11* α(K)exp=0.07 *3* Mult.: E2 or M2 from α(K)exp; but ΔJ$^\pi$ requires E2. Additional information 11.
228.7 *3*	0.111 *10*	524.3		295.6	(3/2,5/2)$^-$				Additional information 13.
233.1 *3*	0.049 *8*	352.42	(5/2)$^-$	119.84	5/2$^-$				
241.7[a] *2*	1.11 *4*	374.20	(7/2)$^+$	132.50	(5/2)$^+$	E2(+M1)	>1	0.028 *6*	α(K)=0.025 *5*; α(L)=0.0029 *6*; α(M)=0.00046 *10*; α(N)=4.1×10^{-5} *9* α(K)exp=0.031 *10*; α(L)exp=0.0030 *11* E$_\gamma$: average of 241.7 *3* (1995BeZS), 241.7 *2* (1974Ro12). Additional information 12.
273.2 *2*	0.52 *2*	273.23	(1/2,3/2)$^-$	0.0	3/2$^-$	M1(+E2)	<0.75	0.0107 *25*	α(K)=0.0095 *22*; α(L)=0.0010 *3*; α(M)=0.00017 *5*; α(N)=1.5×10^{-5} *4* α(K)exp=0.009 *3* E$_\gamma$: average of 273.2 *3* (1995BeZS), 273.1 *2* (1974Ro12). Additional information 7.
295.6[a] *3*	0.232 *15*	295.6	(3/2,5/2)$^-$	0.0	3/2$^-$	M1(+E2)	<0.55	0.0079 *12*	α(K)=0.0070 *11*; α(L)=0.00077 *12*; α(M)=0.000122 *19*; α(N)=1.13×10^{-5} *17* α(K)exp=0.006 *2* Additional information 8.
352.5[a] *2*	0.76 *3*	352.42	(5/2)$^-$	0.0	3/2$^-$	M1(+E2)	<0.4	0.0047 *4*	α(K)=0.0042 *3*; α(L)=0.00045 *4*; α(M)=7.2×10^{-5} *6*; α(N)=6.7×10^{-6} *5* α(K)exp=0.0034 *11* E$_\gamma$: average of 352.5 *3* (1995BeZS), 352.5 *2* (1974Ro12). Additional information 9.
398.6 *3*	0.078 *9*	518.26	(7/2$^-$)	119.84	5/2$^-$				
403.3 *3*	0.172 *13*	777.45		374.20	(7/2)$^+$				
518.2[d] *3*	0.144 *10*	518.26	(7/2$^-$)	0.0	3/2$^-$				
553.9[e] *3*	0.062 *7*	1601.62	(3/2$^+$,5/2$^+$)	1047.81					
556.2 *3*	0.096 *8*	735.6		179.40	(1/2$^-$)				
581.8[a] *3*	0.058 *6*	701.6		119.84	5/2$^-$				
622.8 *3*	0.171 *11*	777.45		154.68	(3/2)$^+$				Additional information 14.
627.4 *3*	0.327 *16*	848.21	(9/2$^+$)	220.82	(9/2)$^+$				Additional information 16.

From ENSDF

γ(^{75}Br) (continued)

E_γ[‡]	I_γ[‡h]	E_i(level)	J^π_i	E_f	J^π_f	Comments
644.9[&] 3	0.86 5	777.45		132.50	$(5/2)^+$	
654.5 3	0.123[f] 10	774.3	$(9/2^-)$	119.84	$5/2^-$	
654.5 3	0.203[f] 12	1601.62	$(3/2^+,5/2^+)$	947.02		
665.7[&] 3	0.257 19	819.95		154.68	$(3/2)^+$	
670.0[i] 3	0.113 10	802.5		132.50	$(5/2)^+$	Additional information 15.
673.6 3	0.401 18	1047.81		374.20	$(7/2)^+$	Additional information 21.
687.1 3	0.083 17	819.95		132.50	$(5/2)^+$	
700.7 3	0.49 2	1601.62	$(3/2^+,5/2^+)$	901.09	(3/2,5/2)	Additional information 26.
713.4 3	0.031 8	833.2		119.84	$5/2^-$	
715.7 3	0.071 8	848.21	$(9/2^+)$	132.50	$(5/2)^+$	
746.3 3	0.391 18	901.09	(3/2,5/2)	154.68	$(3/2)^+$	Additional information 17.
768.6[a] 3	0.65 3	901.09	(3/2,5/2)	132.50	$(5/2)^+$	Additional information 18.
770.8[b] 3	0.053 8	1145.47		374.20	$(7/2)^+$	
781.4[b] 3	0.174 12	901.09	(3/2,5/2)	119.84	$5/2^-$	Additional information 19.
792.2 3	0.54 2	947.02		154.68	$(3/2)^+$	Additional information 20.
796.4[&] 3	0.263 19	928.9		132.50	$(5/2)^+$	
824.2 3	0.342 16	1601.62	$(3/2^+,5/2^+)$	777.45		Additional information 27.
849.4 3	0.143 10	1223.6		374.20	$(7/2)^+$	
852.0 3	0.175 10	1072.59	$(5/2^+,7/2)$	220.82	$(9/2)^+$	
854.3[e] 3	0.105 9	1801.37		947.02		
866.0 3	0.094 9	1601.62	$(3/2^+,5/2^+)$	735.6		
873.9 3	0.116 11	1226.3		352.42	$(5/2)^-$	
890.9[bi] 3	0.053 7	1023.4		132.50	$(5/2)^+$	
896.5 3	0.164 9	1744.7		848.21	$(9/2^+)$	
900.4 3	0.206 11	1801.37		901.09	(3/2,5/2)	Additional information 34.
901.3 3	0.046 4	901.09	(3/2,5/2)	0.0	$3/2^-$	
915.4 3	0.358 16	1047.81		132.50	$(5/2)^+$	Additional information 22.
918.1 3	0.050 9	1072.59	$(5/2^+,7/2)$	154.68	$(3/2)^+$	
924.8 3	0.068 10	1145.47		220.82	$(9/2)^+$	
940.3 3	0.325 16	1072.59	$(5/2^+,7/2)$	132.50	$(5/2)^+$	Additional information 23.
952.1[bi] 3	0.023 11	1072.59	$(5/2^+,7/2)$	119.84	$5/2^-$	Additional information 24.
966.8 3	0.088 9	1240.0		273.23	$(1/2,3/2)^-$	
981.5 3	0.088 9	1801.37		819.95		
991.1 3	0.097 12	1145.47		154.68	$(3/2)^+$	
1023.8 3	0.086 10	1178.5		154.68	$(3/2)^+$	
1094.1[i]		1226.3		132.50	$(5/2)^+$	
1094.1 3	0.191 13	1612.26	$(5/2,7/2)^+$	518.26	$(7/2^-)$	
1126.5 3	0.110 12	1500.54	$(3/2^+,5/2,7/2^+)$	374.20	$(7/2)^+$	
1227.4 3	0.351 19	1601.62	$(3/2^+,5/2^+)$	374.20	$(7/2)^+$	Additional information 28.
1238.1[a] 3	0.58 3	1612.26	$(5/2,7/2)^+$	374.20	$(7/2)^+$	Additional information 32.
1249.0 3	0.51 3	1601.62	$(3/2^+,5/2^+)$	352.42	$(5/2)^-$	E_γ: from figure 2.15 in 1995BeZS. In Table 3.2 and figure 2.17 it listed as 1249.8. In

From ENSDF

γ(^{75}Br) (continued)

E_γ [‡]	I_γ [‡h]	E_i(level)	J^π_i	E_f	J^π_f	Comments
						an email reply of April 5, 2012, Dr. R. Rubio suggested that 1249.0 is a better value. Additional information 29.
1292.7 *3*	0.114 *13*	1447.4		154.68	(3/2)$^+$	
1345.9 *3*	1.43 *6*	1500.54	(3/2$^+$,5/2,7/2$^+$)	154.68	(3/2)$^+$	Additional information 25.
1367.8 *3*	0.40 *2*	1500.54	(3/2$^+$,5/2,7/2$^+$)	132.50	(5/2)$^+$	
1391.3 *3*	0.135 *12*	1612.26	(5/2,7/2)$^+$	220.82	(9/2)$^+$	
1446.7 *3*	0.58 *3*	1601.62	(3/2$^+$,5/2$^+$)	154.68	(3/2)$^+$	
1457.6 *3*	0.283 *15*	1612.26	(5/2,7/2)$^+$	154.68	(3/2)$^+$	
1469.2 *3*	1.16 *5*	1601.62	(3/2$^+$,5/2$^+$)	132.50	(5/2)$^+$	Additional information 30.
1479.8 *3*	2.03 *9*	1612.26	(5/2,7/2)$^+$	132.50	(5/2)$^+$	
1481.1 *3*	0.66 *3*	1601.62	(3/2$^+$,5/2$^+$)	119.84	5/2$^-$	
1491 [ci]		1612.26	(5/2,7/2)$^+$	119.84	5/2$^-$	
1503.5 *3*	0.082 *10*	1636.0		132.50	(5/2)$^+$	
1601.6 [a] *3*	1.72 *8*	1601.62	(3/2$^+$,5/2$^+$)	0.0	3/2$^-$	Additional information 31.
1612.2 *3*	0.295 *15*	1744.7		132.50	(5/2)$^+$	Additional information 33.
1668.7 *3*	0.200 *12*	1801.37		132.50	(5/2)$^+$	Additional information 35.
1669.3 *3*	0.104 *9*	1789.2		119.84	5/2$^-$	
1934.9 *3*	0.096 *10*	2208.2	(3/2,5/2)	273.23	(1/2,3/2)$^-$	
1991.0 *3*	0.07 *2*	2123.5		132.50	(5/2)$^+$	
2053.5 *3*	0.063 *11*	2208.2	(3/2,5/2)	154.68	(3/2)$^+$	

† Additional information 36.

‡ From 1995BeZS, unless otherwise stated. The Iγ values in 1995BeZS are normalized to 100 disintegrations of ^{75}Kr. Energy uncertainty of 0.3 keV is assigned for most transitions in consultation Dr. B. Rubio (adviser of 1995BeZS thesis) through e-mail reply of April 5. Several lines are indicated by 1995BeZS as contaminated with other activities. The evaluators assume that appropriate corrections have been applied to the values listed in table 3.2 of 1995BeZS.

\# From Adopted Gammas, based on measured α(K)exp, α(L)exp and α(M)exp values in 1995BeZS. Mixing ratios deduced by the evaluators from ce data in 1995BeZS.

@ Contamination from a line in ^{75}Rb decay.

& Contamination from a sum peak of either two transitions in cascade or a gamma ray summing with 511-keV annihilation peak.

a Contamination from room background.

b Contamination from a line from ^{75}Br decay.

c Observed in $\gamma\gamma$ coin spectrum, not in singles.

d Contaminated with 511-keV annihilation peak.

e Transition observed in an experiment at HMI by producing ^{75}Kr source in ^{58}Ni(^{20}Ne,2pn) at 80 MeV using OSIRIS detector system for γ-ray detection (some details are given in appendix C of 1995BeZS).

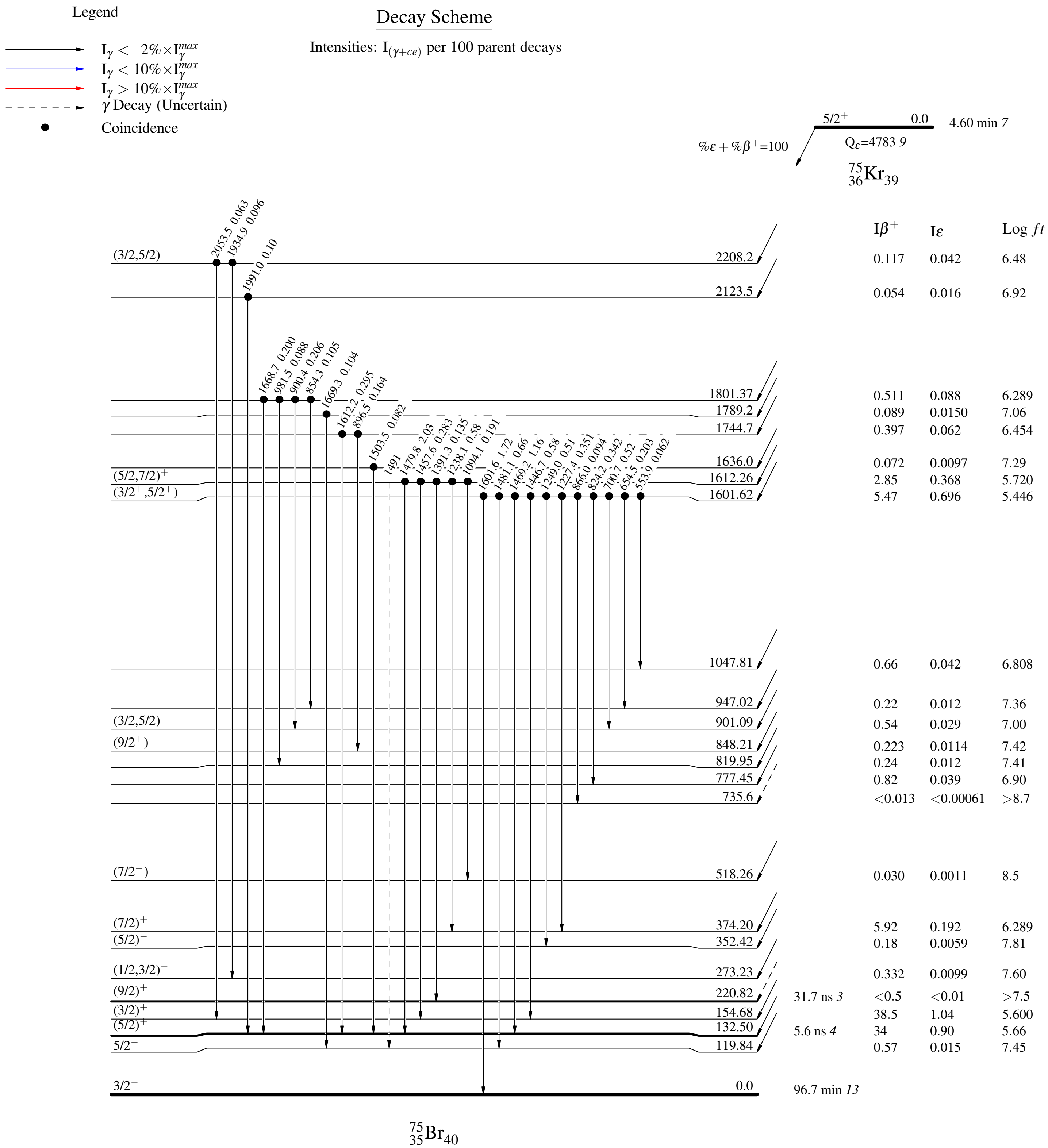
f From $\gamma\gamma$ coincidence gated spectrum.

g If No value given it was assumed δ=1.00 for E2/M1, δ=1.00 for E3/M2 and δ=0.10 for the other multipolarities.

h Absolute intensity per 100 decays.

i Placement of transition in the level scheme is uncertain.

^{75}Kr ε decay (4.60 min) 1995BeZS,1974Ho35,1974Ro12



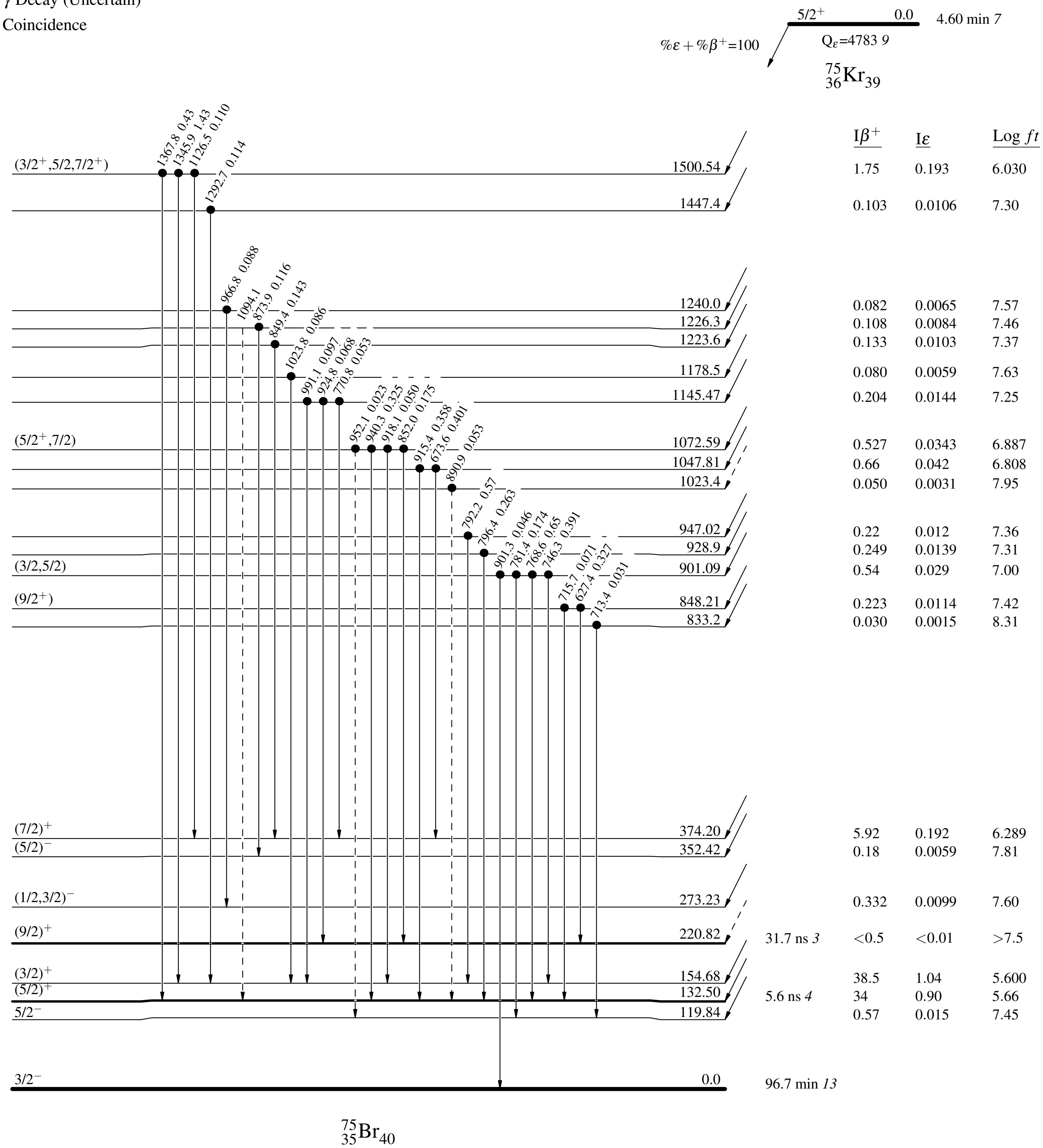
^{75}Kr ε decay (4.60 min) 1995BeZS,1974Ho35,1974Ro12

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)
- ● Coincidence

Decay Scheme (continued)

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{75}Kr ε decay (4.60 min) 1995BeZS,1974Ho35,1974Ro12