Adopted Levels, Gammas

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh, Jun Chen and Ameenah R. Farhan	NDS 194,3 (2024)	8-Jan-2024

Q(β^-)=−8535 *4*; S(n)=12761 *9*; S(p)=7196 *6*; Q(α)=−3570 *4* 2021Wa16
Q(ε)=1275 *10*, S(2n)=22824 *4*, S(2p)=11378 *4* (2021Wa16).
1954Ca03: ^{76}Kr produced and identified in spallation reaction: Y(p,X),E=150, 175, 240 MeV from Rochester cyclotron. Measured half-life of 9.7 h *5* for the decay of ^{76}Kr. Later studies of decay of ^{76}Kr: 1955Th01, 1963Do04, 1973Lo07, 1973Pa02.
Other reactions:
1983Ga19 (also 1984Sn01): ^{64}Zn(^{12}C,γ), ^{58}Ni(^{18}O,γ),E=42-6 MeV, GDR study.
1993HuZZ: ^{76}Kr(π^+,π^-),E=294 MeV. Measured $\sigma(\theta)$.
Additional information 1.
Mass measurements: 2008Go23, 2006Ro11, 2005Ch60, 2002He23.
2007Ya06, 2007Ya20: ^{12}C(^{76}Kr,X),E≤1.05 GeV/nucleon; measured σ; deduced rms matter radius, Glauber model.

^{76}Kr Levels

Cross Reference (XREF) Flags

A	^{76}Rb $\varepsilon+\beta^+$ decay (36.5 s)	F	^{66}Zn(^{12}C,2nγ),^{58}Ni(^{24}Mg,α2pγ)
B	^{77}Sr εp decay (9.0 s)	G	^{78}Kr(p,t)
C	^{1}H(^{76}Kr,^{76}Kr′γ)	H	^{78}Kr(α,^{6}He)
D	^{40}Ca(^{40}Ca,4pγ)	I	Coulomb excitation
E	^{54}Fe(^{28}Si,α2pγ)		

E(level)†	J$^\pi$#	T$_{1/2}$‡	XREF	Comments
0.0&	0$^+$	14.79 h *5*	ABCDEFGHI	%ε+%β^+=100 RMS charge radius (<r^2>)$^{1/2}$=4.2020 fm *36* (2013An02 evaluation). T$_{1/2}$: weighted average of 14.82 h *5* (1963Do04, from parent-daughter separations); 14.7 h *1* (1963Do04, growth-decay curve for annihilation radiation, using 16.2 h half-life for ^{76}Br decay); 14.6 h *2* (1973Pa02, γ-decay curves). 1963Do04 measured decay curves for three prominent γ rays and reported T$_{1/2}$=14.1 h, 14.2 h, and 14.3 h, with a counting uncertainty of 0.1 h but an overall uncertainty of 0.5 h in each value. Others: 10.5 h (1955Th01), 9.7 h *5* (1954Ca03).
424.05& *7*	2$^+$	27.1 ps *10*	ABCDEFGHI	μ=+0.74 *22* (2004Ku11,2005Be61,2020StZV) Q=−0.7 *2* (2007Cl02) J$^\pi$: E2 γ to 0$^+$. μ: transient-field technique in Coul. ex. (2004Ku11,2005Be61). Q: from Coulomb excitation (2007Cl02). No value is given in 2021StZZ compilation. T$_{1/2}$: from recommended B(E2)↑=0.758 *26* (2016Pr01 evaluation), based on the following measurements: RDDS measurements, mean lifetime τ=41.5 ps *8* (2005Go43), 37.7 ps *30* (1990He04), 36 ps *1* (1984Wo10) and 35 ps *3* (1982Ke01). B(E2)↑=0.721 *10* (2007Cl02, Coul. ex. with incident energy above Coulomb barrier). Other: τ=53 ps *7* (1974No08) from RDDS seems discrepant.
769.94^k *9*	0$^+$	42 ps *6*	A FG I	XREF: F(?). J$^\pi$: (346γ)(424γ)(θ) in ^{76}Br ε decay (1978LiZU). Also L=0 in (p,t). T$_{1/2}$: from $\beta\gamma$(t) in ^{76}Rb ε decay. Other: 47.3 ps *17* (2007Cl02, Coulomb excitation using GOSIA analysis).
1034.75& *9*	4$^+$	2.72 ps *17*	A CDEFG I	Q=−1.7 *3* (2007Cl02) B(E2)(from 424,2$^+$)=0.444 *6* (2007Cl02 from Coulomb excitation). J$^\pi$: ΔJ=2, E2 γ to 2$^+$; rotational band member.

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Adopted Levels, Gammas (continued)

^{76}Kr Levels (continued)

E(level)†	Jπ#	$T_{1/2}$‡	XREF	Comments
				$T_{1/2}$: weighted average of 3.05 ps *14* (2007Cl02,Coulomb excitation, free fit analysis by GOSIA code), 2.54 ps *6* (RDDS,2005Go43), 2.08 ps *21* (RDDS,1998Sk01), 3.4 ps *3* (RDDS,1984Wo10); 3.5 ps *14* (DSA,1982Pi01); 2.9 ps *7* (RDDS,1982WiZS), uncertainty in 2005Go43 was increased to 5%. Others: 5.7 ps *16* (RDDS,1974No08) seems discrepant; and 4.30 ps *14* (RDDS,1982Ke01) is effective half-life. Q: from Coulomb excitation (2007Cl02). No value is given in 2021StZZ compilation.
1221.72[c] *7*	2^+	1.11 ps *7*	A CDEFGHI	Q=−0.7 *3* (2007Cl02) Jπ: L(p,t)=2 from 0^+. $T_{1/2}$: from Coulomb excitation using GOSIA analysis (2007Cl02). Other: ≈1 ps (RDDS,1982Ke01). Q: from Coulomb excitation (2007Cl02). No value is given in 2021StZZ compilation.
1598.07 *8*	$(0)^+$	<4.7[@] ps	A	Jπ: E2 γ to 2^+; possible 828-keV E0 transition to 0^+.
1687.32[k] *8*	2^+	0.326 ps *35*	A FGHI	Q=+1.0 *4* (2007Cl02) Jπ: L(p,t)=2 from 0^+. $T_{1/2}$: from Coulomb excitation using GOSIA analysis (2007Cl02). Q: from Coulomb excitation (2007Cl02). Other: <4.8 ps from βγ(t) in ε decay. No value is given in 2021StZZ compilation.
1733.26[d] *10*	3^+	≈1 ps	A DEF	Jπ: ΔJ=1, M1+E2 γ to 2^+, M1,E2 γ to 4^+. $T_{1/2}$: from RDDS (1982Ke01).
1859.7[&] *4*	6^+	0.72 ps *8*	DEF I	Q=−2.0 *3* (2007Cl02) Jπ: ΔJ=2, E2 γ to 4^+; member of rotational band. $T_{1/2}$: weighted average (NRM) of 0.67 ps *20* (RDDS,2005Go43); 0.55 ps *21* (RDDS,1998Sk01); 0.82 ps *9* (DSA,1989Gr21); 1.04 ps *14* (RDDS,1984Wo10); 0.87 ps *8* (DSA,1982Pi01); 0.55 ps *14* (RDDS,1982WiZS); and 0.568 ps *35* (2007Cl02, Coulomb excitation, free fit analysis by GOSIA code). Q: from Coulomb excitation (2007Cl02).
1957.4[c] *3*	4^+	0.90 ps *14*	CDEF I	Jπ: ΔJ=2, E2 γ to 2^+; ΔJ=1, M1+E2 γ to 4^+. $T_{1/2}$: from Coul. ex. (2007Cl02) using GOSIA analysis. Other: <0.90 ps *28* (effective half-life from DSAM in (^{12}C,2nγ), 1982Pi01).
2091.49 *10*	$(2)^+$	<34[@] ps	A GH	Jπ: 1321.6γ M1,E2 to 0^+; L(p,t)=(2,3,4) for a 2079 *15* group would support 2^+.
2104.33 *9*	1^-	16[@] ps *5*	A	Jπ: E1 γ to 0^+.
2140.17 *16*	$(1,2^+)$		A	Jπ: 2140.5γ to 0^+.
2192.50 *12*			A	
2227.27[g] *9*	2^-	25[@] ps *6*	A DEF	Jπ: log *ft*=6.2 from 1^-; E1(+M2) γ to 2^+; 493.8γ to 3^+ can only be D,E2 from RUL.
2257.55[h] *9*	3^-	<5.7[@] ps	A CDEFG	Jπ: L(p,t)=3 from 0^+.
2332.70 *16*	(1^-)		A	Jπ: 2333.2γ to 0^+; 1270.1γ M1,E2 from 1^-.
2452.4[d] *4*	5^+	<1.04 ps	DEF	$T_{1/2}$: effective half-life=0.76 ps *28* from DSAM in (^{12}C,2nγ) (1982Pi01). Jπ: ΔJ=1, M1+E2 γ to 4^+; ΔJ=2, E2 γ to 3^+.
2571.01 *8*	1^-	16[@] ps *4*	A	Jπ: 973.0γ E1 to 0^+.
2581.12 *10*	(2^+)		A	Jπ: γs to 4^+ and 2^+; possible β feeding from 1^- parent.
2601 *15*	$(3^-,4^+)$		G	Jπ: L(p,t)=(3,4) from 0^+.
2622.0[g] *4*	$4^{(-)}$		DEF	Jπ: ΔJ=2, quadrupole γ to 2^-; ΔJ=1, dipole γs to 4^+ and 3^+; band assignment.
2683.7[h] *5*	(5^-)		DEF	Jπ: ΔJ=1 γ to 4^+; band assignment.
2700.16 *13*	2^+	<27[@] ps	A G	Jπ: L(p,t)=2 from 0^+.

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Adopted Levels, Gammas (continued)

^{76}Kr Levels (continued)

E(level)[†]	Jπ[#]	$T_{1/2}$[‡]	XREF	Comments
2742.20[i] *21*	(4⁻)		A DE	Jπ: γ ΔJ=1 to 3⁺; band assignment.
2763.2[c] *5*	(6⁺)		DEF I	
2774.94 *12*	0⁺,1,2	22[@] ps *10*	A	Jπ: log *ft*=6.4 from 1⁻; 1553.2γ to 2⁺ can only be D,E2 from RUL.
2816.57 *18*	(1,2⁺)	<13[@] ps	A	Jπ: 2046.5γ to 0⁺.
2845.1[a] *5*	(4⁺)		DE	
2872 *15*	3⁻		G	Jπ: L(p,t)=3 from 0⁺.
2879.4[&] *5*	8⁺	0.21 ps *2*	DEF I	Jπ: ΔJ=2, E2 γ to 6⁺; member of rotaional band. $T_{1/2}$: weighted average of 0.23 ps *2* (DSA,1989Gr21); 0.208 ps *21* (DSA,1982Pi01); 0.22 ps *3* (RDDS,1982WiZS); 0.173 ps *21* (from Coul. ex. using GOSIA analysis, 2007Cl02). Other: 0.31 ps *5* (DSA,1984Wo10, effective half-life).
2926.59 *12*	0⁻,1⁻,2⁻	21[@] ps *5*	A	Jπ: allowed ε decay (log *ft*=5.8) from 1⁻; 822.2γ M1 to 1⁻.
2944.4[j] *6*	(5⁻)		DE	
2970.1 *3*	(0⁺,1,2)	<39[@] ps	A	Jπ: 2546γ to 2⁺; possible ε feeding from 1⁻ parent.
3024.42 *9*	(2)⁻	18[@] ps *6*	A	Jπ: 766.7γ M1,E2 to 3⁻; strong ε feeding (log *ft*=5.9) from 1⁻; 1291.3γ to 3⁺.
3096.1[b] *5*	5⁽⁺⁾		DE	Jπ: 1236γ D+Q to 6⁺, 2062γ D to 4⁺; band assignment.
3175.2[g] *5*	6⁽⁻⁾		DEF	Jπ: 553.1γ Q, ΔJ=2 to 4⁽⁻⁾; 723.5γ D, ΔJ=1 to 5⁺; band assignment.
3242.1 *3*	(1,2⁺)	<23[@] ps	A G	Jπ: ε feeding from 1⁻ (log *ft*=6.5); 3242.3γ to 0⁺.
3275.90 *21*	(1⁺,2)		A	Jπ: possible ε feeding from 1⁻ (log *ft*=6.9); γ to 3⁺.
3288.4[h] *5*	(7⁻)	1.80 ps *+76−44*	DEF	Jπ: ΔJ=2, E2 γ to (5⁻) and ΔJ=1 γ to 6⁺; $T_{1/2}$: from DSAM in (^{28}Si,p2nγ) (1999Mu21) (See (^{12}C,2nγ) dataset). Other: 0.256 ps *42* (DSAM,1982Pi01).
3296.3[i] *7*	6⁽⁻⁾		DE	Jπ: 675γ Q, ΔJ=2 to 4⁽⁻⁾; 1436γ D to 6⁺; band assignment.
3332.7[d] *6*	7⁺	<0.92 ps	DEF	Jπ: 879.9γ E2, ΔJ=2 to 5⁺; 1474γ D+Q to 6⁺. $T_{1/2}$: effective half-life=0.71 ps *21* from DSAM in (^{12}C,2nγ) (1982Pi01).
3406.2[a] *6*	(6⁺)		DE	
3421.6 *5*	(0⁺,1,2)	<24[@] ps	A	Jπ: possible ε feedig from 1⁻ (log *ft*=7.1); γ to 2⁺.
3456.1 *5*	(0⁻,1,2)		A G	Jπ: possible ε feedig from 1⁻ (log *ft*=7.2); γ to 2⁻.
3571.2[c] *8*	(8⁺)		DEF	
3573.8[j] *7*	(7⁻)		DE	
3602.81 *13*	1⁻	<9.7[@] ps	A	Jπ: E1 γ to 0⁺.
3636.3 *3*	1,2⁽⁺⁾		A G	Jπ: ε feeding from 1⁻ (log *ft*=6.4); γ to 0⁺.
3672.24 *22*	(0,1,2)		A	Jπ: possible ε feeding from 1⁻ (log *ft*=6.8).
3781.9[b] *8*	7⁽⁺⁾		DE	Jπ: 686γ Q, ΔJ=2 to 5⁽⁺⁾; 376γ D, ΔJ=1 to 6⁺; band assignment.
3900.9[g] *8*	8⁽⁻⁾	1.12 ps *+28−19*	DEF	Jπ: E2, ΔJ=2 γ to 6⁽⁻⁾; 568γ D, ΔJ=1 to 7⁺.
3978.0 *3*	1,2⁽⁺⁾	<17[@] ps	A G	Jπ: ε feeding from 1⁻ (log *ft*=6.4); 3978.2γ to 0⁺.
3986.6 *3*	1,2⁽⁺⁾	27[@] ps *18*	A	Jπ: ε feeding from 1⁻ (log *ft*=6.3); 3216.3γ to 0⁺.
4026.72 *17*	1,2⁽⁺⁾	<17[@] ps	A	Jπ: ε feeding from 1⁻ (log *ft*=6.1); γs to 0⁺.
4068.4[&] *11*	10⁺	0.102 ps *14*	DEF I	Jπ: ΔJ=2, E2 γ to 8⁺; member of rotational band. $T_{1/2}$: from DSA method. Weighted average of 0.097 ps *14* (1982Pi01); 0.12 ps *3* (1982WiZS); 0.104 ps *21* (Coul. ex. using GOSIA analysis, 2007Cl02). Others (effective half-lives): 0.56 ps *11* (1989Gr21), 0.14 ps *4* (1984Wo10).
4072.8[h] *6*	(9⁻)	0.56 ps *+9−8*	DEF	$T_{1/2}$: from DSAM in (^{28}Si,p2nγ) (1999Mu21) (See (^{12}C,2nγ) dataset). Other: 0.35 ps *8* (effective half-life, and 0.111 ps *42* from gating above, both from DSAM in (^{12}C,2nγ),1982Pi01).
4097.75 *20*	1,2⁽⁺⁾	<18[@] ps	A	Jπ: ε feeding from 1⁻ (log *ft*=6.0); 3327.6γ to 0⁺.

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Adopted Levels, Gammas (continued)

^{76}Kr Levels (continued)

E(level)†	Jπ#	$T_{1/2}$‡	XREF	Comments
4118.3[i] *12*	(8⁻)		DE	
4217.8[a] *9*	(8⁺)		DE	
4289.42 *22*	(0,1,2)⁻		A	Jπ: ε feeding from 1⁻ (log *ft*=5.8); 686.5γ M1,E2 to 1⁻.
4380.1[d] *8*	(9⁺)		D	
4403.7 *12*	(9⁺)	<0.36 ps	F	E(level): this level is only from (^{12}C,2nγ),(^{24}Mg,α2pγ) (1982Pi01, 1989Gr21). It is not reported in more recent studies with high statistics: ^{54}Fe(^{28}Si,α2pγ) (1996Do07) and ^{40}Ca(^{40}Ca,4pγ) (2005Va09). $T_{1/2}$: effective half-life=0.29 ps *7* from DSAM in (^{12}C,2nγ) (1982Pi01).
4433.8[c] *9*	(10⁺)		DE	
4469.8[j] *9*	(9⁻)		DE	
4700.5[b] *10*	(9⁺)		DE	
4806.4[g] *10*	(10⁻)	0.55 ps *+12−16*	DEF	
5051.3[h] *9*	(11⁻)	0.163 ps *27*	DEF	$T_{1/2}$: from DSAM in (^{12}C,2nγ); weighted average of 0.180 ps *+35−28* (1999Mu21) and 0.12 ps *5* (1982Pi01).
5106.3[i] *16*	(10⁻)		DE	
5240.5[a] *11*	10(+)		DE	
5348.4[&] *15*	12⁺	<0.20 ps	DEF	Jπ: member of rotational band. $T_{1/2}$: effective half-life=0.166 ps *35* from DSAM in (^{12}C,2nγ) (1982Pi01).
5528.8[j] *14*	(11⁻)		DE	
5566.8[c] *14*	(12⁺)		D	
5589.1[d] *13*	(11⁺)		D	
5795.7[b] *12*	11(+)		D	
5873.1[g] *11*	(12⁻)	0.173 ps *+35−28*	DEF	
6218.3[i] *19*	(12⁻)		DE	
6222.3[h] *13*	(13⁻)	0.090 ps *28*	DEF	$T_{1/2}$: from DSAM in (^{28}Si,p2nγ) (1999Mu21) (See (^{12}C,2nγ) dataset). Other: 0.24 ps *6* (effective half-life from DSAM in (^{12}C,2nγ),1982Pi01).
6390.2[a] *13*	(12⁺)		D	
6605.4[e] *18*	(12⁺)		D	
6650.4[&] *18*	14⁺		DEF	Jπ: ΔJ=2 γ to 12⁺; member of rotational band.
6681.8[j] *17*	(13⁻)		DE	
6937.1[d] *17*	(13⁺)		D	
7032.4[b] *14*	(13⁺)		D	
7034.9[c] *17*	(14⁺)		D	
7110.1[g] *15*	(14⁻)	<0.19 ps	DEF	
7435.3[i] *21*	(14⁻)		D	
7554.3[a] *15*	(14⁺)		D	
7583.3[h] *17*	(15⁻)	<0.14 ps	DEF	
7606.4[e] *21*	(14⁺)		D	
7870.9[j] *20*	(15⁻)		D	
8000.4[&] *21*	16⁺		DEF	Jπ: ΔJ=2 γ to 14⁺; member of rotational band.
8432.1[d] *19*	(15⁺)		D	
8521.1[g] *18*	(16⁻)		DEF	
8666.9[c] *20*	(16⁺)		D	
8717.4[i] *24*	(16⁻)		D	
8798.5[e] *23*	(16⁺)		D	

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Adopted Levels, Gammas (continued)

^{76}Kr Levels (continued)

E(level)[†]	Jπ[#]	XREF	Comments
8829.3[a] 18	(16+)	D	
9117.4[h] 20	(17−)	DEF	
9217.9[j] 22	(17−)	D	
9400.5[&] 23	18+	DEF	Jπ: E2, ΔJ=2 γ to 16+; member of rotational band.
10050.1[d] 22	(17+)	D	
10059.1[g] 21	(18−)	DEF	
10135[i] 3	(18−)	D	
10139.5[e] 25	(18+)	D	
10470.9[c] 22	(18+)	D	
10640.4[h] 22	(19−)	D F	
10773.9[j] 24	(19−)	D	
10936.5[&] 25	20+	D F	Jπ: E2, ΔJ=2 γ to 18+; member of rotational band.
11655.1[g] 23	(20−)	D F	
11664[e] 3	(20+)	D	
11719[i] 3	(20−)	D	
11785.1[d] 24	(19+)	D	
12254.4[h] 24	(21−)	D F	
12397.9[c] 24	(20+)	D	
12493[j] 3	(21−)	D	
12695[&] 3	22+	D F	Jπ: E2, ΔJ=2 γ to 20+; member of rotational band.
13352.1[g] 25	(22−)	D F	
13388[e] 3	(22+)	D	
13500[i] 3	(22−)	D	
13613[d] 3	(21+)	D	
14026[h] 3	(23−)	D	
14440[j] 3	(23−)	D	
14751[&] 3	24+	D F	Jπ: E2, ΔJ=2 γ to 22+; member of rotational band.
15225[g] 3	(24−)	D	
15346[e] 3	(24+)	D	
15503[i] 3	(24−)	D	
16009[h] 3	(25−)	D	
16650[j] 3	(25−)	D	
17157[&] 3	26+	D	Jπ: E2, ΔJ=2 γ to 24+; member of rotational band.
17327[g] 3	(26−)	D	
17550[e] 4	(26+)	D	
17859[i] 4	(26−)	D	
18256[h] 3	(27−)	D	
19172[j] 4	(27−)	D	
19741[g] 3	(28−)	D	
19950[&] 4	28+	D	Jπ: E2, ΔJ=2 γ to 26+; member of rotational band.
20045[e] 4	(28+)	D	
20538[i] 4	(28−)	D	
20815[h] 4	(29−)	D	
22583[g] 4	(30−)	D	
22790[e] 4	(30+)	D	
23157[&] 4	(30+)	D	Jπ: possible member of rotaional band.
23742[h] 4	(31−)	D	

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Adopted Levels, Gammas (continued)

^{76}Kr Levels (continued)

E(level)[†]	Jπ[#]	XREF	E(level)[†]	Jπ[#]	XREF
25868[g] *4*	(32⁻)	D	4847.0+x[f] *20*	(19⁺)	D
27083[h] *4*	(33⁻)	D	6472.1+x[f] *23*	(21⁺)	D
x[f]	(11⁺)	D	8309.1+x[f] *25*	(23⁺)	D
966.0+x[f] *10*	(13⁺)	D	10382+x[f] *3*	(25⁺)	D
2097.0+x[f] *15*	(15⁺)	D	12696+x[f] *3*	(27⁺)	D
3390.0+x[f] *18*	(17⁺)	D	15234+x[f] *3*	(29⁺)	D

† From a least squares fit to Eγ data.
‡ From DSAM data in (^{28}Si,p2nγ) (1999Mu21) (see (^{12}C,2nγ) dataset), unless otherwise stated.
# For low-spin (J<4), assignments are from ^{76}Rb ε decay based on transition multipolarities, log *ft* values, and decay pattern. For high-spin (J≥4) levels, assignments are based on transition multipolarities from γ(θ) and γγ(θ)(DCO) values, and band structures.
@ From βγ(t) data in ^{76}Rb ε decay.
& Band(A): g.s. band. Terminating state at 30⁺ is proposed (2005Va09) with configuration= $\pi[((g_{9/2})^2_8)((f_{5/2},p_{3/2})^6_6)]_{14}$ $\otimes\nu[((g_{9/2})^4_{12})((f_{5/2},p_{3/2})^8_4)]_{16}$ and for 26⁺ state: $\pi[((g_{9/2})^2_8)((f_{5/2},p_{3/2})^6_4)]_{12}$ $\otimes\nu[((g_{9/2})^4_{12})((f_{5/2},p_{3/2})^8_2)]_{14}$.
Q(transition) decreases from 2.3 to 1.8 from 18⁺ to 30⁺. Band crossings are attributed to alignments of pairs of $g_{9/2}$ protons and neutrons (1989Gr21). Q(intrinsic)=2.90 *4* (1989Gr21).
[a] Band(B): Band based on 4⁺,α=0.
[b] Band(b): Band based on 5⁺,α=1.
[c] Band(C): Band based on 2⁺,α=0.
[d] Band(c): Band based on 3⁺,α=1.
[e] Band(D): Band based on 12⁺,α=0.
[f] Band(d): Band based on 11⁺,α=1.
[g] Band(E): π3/2[431]⊗π3/2[312],α=0. Q(transition) decreases from 2.6 to 1.8 from 16⁻ to 30⁻. Terminating state at 32⁻ is proposed (2005Va09) with configuration= $\pi[((g_{9/2})^3_{21/2})((f_{5/2},p_{3/2})^5_{11/2})]_{16}$ $\otimes\nu[((g_{9/2})^4_{12})((f_{5/2},p_{3/2})^6_4)]_{16}$.
[h] Band(e): π3/2[431]⊗π3/2[312],α=1. Q(transition) decreases from 2.9 to 2.2 from 17⁻ to 31⁻.
[i] Band(F): ν3/2[301]⊗ν5/2[422],α=0.
[j] Band(f): ν3/2[301]⊗ν5/2[422],α=1.
[k] Band(G): Band based on 770, 0⁺.

Adopted Levels, Gammas (continued)

$\gamma(^{76}Kr)$

Additional information 2.

E_i(level)	J_i^π	E_γ‡	I_γ#	E_f	J_f^π	Mult.&	δ&	α†	$I_{(\gamma+ce)}$	Comments
424.05	2^+	424.0 *1*	100	0.0	0^+	E2		0.00535 *8*		B(E2)(W.u.)=79.3 *+30−28* α(K)=0.00473 *7*; α(L)=0.000529 *7*; α(M)=8.55×10^{-5} *12* α(N)=8.46×10^{-6} *12*
769.94	0^+	345.9 *1*	100@ *3*	424.05	2^+	E2		0.01045 *15*		B(E2)(W.u.)=141 *+24−18* α(K)=0.00922 *13*; α(L)=0.001049 *15*; α(M)=0.0001696 *24* α(N)=1.666×10^{-5} *23*
		770		0.0	0^+	(E0)			0.26	ρ^2(E0,0^+ to 0^+)=0.079 *11*; X(E0/E2)=0.020 *1* (2005Gi17). q^2_K(E0/E2)=0.203 *8*, X(E0/E2)=0.0188 *12*, ρ^2(E0)=0.077 *12* (2022Ki03 evaluation).
1034.75	4^+	610.6 *1*	100	424.05	2^+	E2		1.77×10^{-3} *3*		B(E2)(W.u.)=128.0 *+86−75* α(K)=0.001570 *22*; α(L)=0.0001716 *24*; α(M)=2.78×10^{-5} *4* α(N)=2.77×10^{-6} *4*
1221.72	2^+	797.6 *1*	100@ *3*	424.05	2^+	M1+E2	+0.2 *1*	0.000755 *12*		B(M1)(W.u.)=0.0222 *17*; B(E2)(W.u.)=1.9 *+22−14* α(K)=0.000671 *10*; α(L)=7.12×10^{-5} *11*; α(M)=1.153×10^{-5} *18* α(N)=1.168×10^{-6} *18* Mult.,δ: from ce data in ^{76}Rb ε decay and $\gamma(\theta)$ in (^{12}C,2nγ) Large M1 component seems inconsistent with systematics of δ values for second 2^+ to first 2^+ transitions.
		1221.6 *1*	69@ *4*	0.0	0^+	E2		0.000328 *5*		B(E2)(W.u.)=4.00 *+31−28* α(K)=0.000281 *4*; α(L)=2.98×10^{-5} *4*; α(M)=4.82×10^{-6} *7* α(N)=4.87×10^{-7} *7*; α(IPF)=1.163×10^{-5} *16*
1598.07	$(0)^+$	376.4 *1*	8.1@ *4*	1221.72	2^+	E2		0.00788 *11*		B(E2)(W.u.)>58 α(K)=0.00696 *10*; α(L)=0.000786 *11*; α(M)=0.0001271 *18* α(N)=1.252×10^{-5} *18*
		828		769.94	0^+	(E0)			0.0039	q^2_K(E0/E2)=0.11 *2*, X(E0/E2)=0.140 *26*, ρ^2(E0)<0.60 (2022Ki03 evaluation).
		1174.0 *1*	100 *3*	424.05	2^+	E2		0.000350 *5*		B(E2)(W.u.)>2.6

$^{76}_{36}Kr_{40}$-7

Adopted Levels, Gammas (continued)

γ(^{76}Kr) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[#]	E_f	J_f^π	Mult.[&]	δ[&]	α[†]	Comments
									α(K)=0.000306 *4*; α(L)=3.25×10^{-5} *5*; α(M)=5.26×10^{-6} *7* α(N)=5.31×10^{-7} *7*; α(IPF)=5.02×10^{-6} *7*
1687.32	2$^+$	466.0 *3*	4.6[@] *16*	1221.72	2$^+$	[M1,E2]		0.0032 *7*	α(K)=0.0029 *6*; α(L)=0.00032 *7*; α(M)=5.1×10^{-5} *12* α(N)=5.1×10^{-6} *12* B(M1)(W.u.)=0.0187 *+70−65* if M1, B(E2)(W.u.)=116 *+43−41* if E2.
		652.6 *1*	9.2[@] *3*	1034.75	4$^+$	[E2]		1.47×10^{-3} *2*	α(K)=0.001303 *18*; α(L)=0.0001419 *20*; α(M)=2.296×10^{-5} *32* α(N)=2.297×10^{-6} *32* B(E2)(W.u.)=43.1 *+57−47*
		917.4 *1*	100[@] *6*	769.94	0$^+$	[E2]		0.000608 *9*	α(K)=0.000540 *8*; α(L)=5.79×10^{-5} *8*; α(M)=9.37×10^{-6} *13* α(N)=9.42×10^{-7} *13* B(E2)(W.u.)=85 *+10−9*
		1263.2 *2*	21.2[@] *7*	424.05	2$^+$	M1,E2		0.000308 *7*	α(K)=0.000258 *5*; α(L)=2.73×10^{-5} *6*; α(M)=4.42×10^{-6} *9* α(N)=4.47×10^{-7} *9*; α(IPF)=1.73×10^{-5} *23* B(M1)(W.u.)=0.00433 *+57−47* if M1, B(E2)(W.u.)=3.65 *+48−40* if E2.
		1687.1 *2*	28.8[@] *10*	0.0	0$^+$	[E2]		0.000327 *5*	α(K)=0.0001454 *20*; α(L)=1.531×10^{-5} *21*; α(M)=2.476×10^{-6} *35* α(N)=2.506×10^{-7} *35*; α(IPF)=0.0001633 *23* B(E2)(W.u.)=1.17 *+15−13*
1733.26	3$^+$	511.6 *2*	20[@] *12*	1221.72	2$^+$	[M1,E2]		0.0025 *5*	α(K)=0.0022 *4*; α(L)=0.00024 *5*; α(M)=3.9×10^{-5} *8* α(N)=3.9×10^{-6} *8* B(M1)(W.u.)≈0.026 if M1, B(E2)(W.u.)≈1.3×10^2 if E2.
		698.4 *1*	8.7[@] *8*	1034.75	4$^+$	M1,E2		0.00111 *11*	α(K)=0.00099 *10*; α(L)=0.000106 *11*; α(M)=1.72×10^{-5} *18* α(N)=1.73×10^{-6} *18* I_γ: 18.2 in ^{40}Ca(^{40}Ca,4pγ). B(M1)(W.u.)≈0.0044 if M1, B(E2)(W.u.)≈12 if E2.
		1309.3 *1*	100 *4*	424.05	2$^+$	M1+E2	+0.38 *4*	0.000292 *4*	B(M1)(W.u.)≈0.0067; B(E2)(W.u.)≈0.75 α(K)=0.0002381 *33*; α(L)=2.508×10^{-5} *35*; α(M)=4.06×10^{-6} *6* α(N)=4.11×10^{-7} *6*; α(IPF)=2.39×10^{-5} *4*
1859.7	6$^+$	824.4 *7*	100	1034.75	4$^+$	E2		0.000792 *11*	B(E2)(W.u.)=108 *+14−11* α(K)=0.000703 *10*; α(L)=7.57×10^{-5} *11*; α(M)=1.225×10^{-5} *17* α(N)=1.230×10^{-6} *17*
1957.4	4$^+$	736.0 *5*	57 *6*	1221.72	2$^+$	E2		1.06×10^{-3} *2*	B(E2)(W.u.)=46.6 *+99−75* α(K)=0.000942 *13*; α(L)=0.0001019 *14*; α(M)=1.649×10^{-5} *23* α(N)=1.654×10^{-6} *23* I_γ: 81.6 in ^{40}Ca(^{40}Ca,4pγ).
		922.6 *5*	100 *10*	1034.75	4$^+$	M1+E2	−0.84 *5*	0.000570 *8*	B(M1)(W.u.)=0.0098 *+20−15*; B(E2)(W.u.)=10.9 *+22−18*

$^{76}_{36}Kr_{40}$-8

Adopted Levels, Gammas (continued)

γ(^{76}Kr) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[#]	E_f	J_f^π	Mult.[&]	α[†]	Comments
								α(K)=0.000507 *7*; α(L)=5.39×10^{-5} *8*; α(M)=8.73×10^{-6} *13* α(N)=8.81×10^{-7} *13*
1957.4	4$^+$	1532.9 *5*	29 *3*	424.05	2$^+$	[E2]	0.000295 *4*	B(E2)(W.u.)=0.61 *+14−10* α(K)=0.0001755 *25*; α(L)=1.851×10^{-5} *26*; α(M)=2.99×10^{-6} *4* α(N)=3.03×10^{-7} *4*; α(IPF)=9.75×10^{-5} *14*
2091.49	(2)$^+$	403.9 *3*	20.7[@] *11*	1687.32	2$^+$	[M1,E2]	0.0049 *14*	α(K)=0.0043 *12*; α(L)=4.8×10^{-4} *14*; α(M)=7.8×10^{-5} *23* α(N)=7.7×10^{-6} *22* B(M1)(W.u.)>8.7×10^{-4} if M1, B(E2)(W.u.)>7.2 if E2.
		493.4 *1*	14[@] *5*	1598.07	(0)$^+$	[E2]	0.00333 *5*	α(K)=0.00294 *4*; α(L)=0.000326 *5*; α(M)=5.27×10^{-5} *7* α(N)=5.24×10^{-6} *7* B(E2)(W.u.)>1.3
		870[a]		1221.72	2$^+$	M1,E2	0.00066 *4*	α(K)=0.000584 *32*; α(L)=6.2×10^{-5} *4*; α(M)=1.01×10^{-5} *6* α(N)=1.02×10^{-6} *6*
		1321.6 *3*	100[@] *3*	769.94	0$^+$	(E2)	0.000300 *4*	B(E2)(W.u.)>0.096 α(K)=0.0002376 *33*; α(L)=2.515×10^{-5} *35*; α(M)=4.07×10^{-6} *6* α(N)=4.11×10^{-7} *6*; α(IPF)=3.27×10^{-5} *5* Mult.: α(K)exp from 2005Gi17 in ^{76}Rb ε decay gives M1,E2; ΔJ^π requires E2.
		1667.6 *3*	78.7[@] *6*	424.05	2$^+$	[M1,E2]	0.000308 *15*	α(K)=0.0001484 *21*; α(L)=1.560×10^{-5} *23*; α(M)=2.52×10^{-6} *4* α(N)=2.56×10^{-7} *4*; α(IPF)=0.000141 *14* B(M1)(W.u.)>4.9×10^{-5} if M1, B(E2)(W.u.)>0.024 if E2.
2104.33	1$^-$	417.1 *1*	2.0 *2*	1687.32	2$^+$	[E1]	1.53×10^{-3} *2*	α(K)=0.001362 *19*; α(L)=0.0001447 *20*; α(M)=2.338×10^{-5} *33* α(N)=2.349×10^{-6} *33* B(E1)(W.u.)=4.2×10^{-6} *+20−11*
		506.0 *9*	7 *3*	1598.07	(0)$^+$	[E1]	0.000944 *14*	α(K)=0.000839 *12*; α(L)=8.89×10^{-5} *13*; α(M)=1.437×10^{-5} *21* α(N)=1.446×10^{-6} *21* B(E1)(W.u.)=8.3×10^{-6} *+55−36*
		882.4 *2*	22 *5*	1221.72	2$^+$	[E1]	0.000273 *4*	α(K)=0.0002430 *34*; α(L)=2.56×10^{-5} *4*; α(M)=4.13×10^{-6} *6* α(N)=4.17×10^{-7} *6* B(E1)(W.u.)=4.9×10^{-6} *+25−15*
		1334.4 *3*	6.3 *23*	769.94	0$^+$	[E1]	0.000261 *4*	α(K)=0.0001124 *16*; α(L)=1.177×10^{-5} *16*; α(M)=1.902×10^{-6} *27* α(N)=1.926×10^{-7} *27*; α(IPF)=0.0001343 *19* B(E1)(W.u.)=4.1×10^{-7} *+25−17*
		1680.3 *2*	100 *5*	424.05	2$^+$	E1	0.000478 *7*	B(E1)(W.u.)=3.2×10^{-6} *+15−8* α(K)=7.68×10^{-5} *11*; α(L)=8.01×10^{-6} *11*; α(M)=1.295×10^{-6} *18* α(N)=1.312×10^{-7} *18*; α(IPF)=0.000391 *5*
		2104.3 *5*	16.0 *5*	0.0	0$^+$	[E1]	0.000761 *11*	B(E1)(W.u.)=2.6×10^{-7} *+12−7*

$^{76}_{36}Kr_{40}$-9

Adopted Levels, Gammas (continued)

γ(^{76}Kr) (continued)

E_i(level)	J_i^π	E_γ‡	I_γ#	E_f	J_f^π	Mult.&	δ&	α†	Comments
									α(K)=5.43×10^{-5} *8*; α(L)=5.66×10^{-6} *8*; α(M)=9.14×10^{-7} *13* α(N)=9.27×10^{-8} *13*; α(IPF)=0.000700 *10*
2140.17	(1,2$^+$)	918.5 *7*	100 *33*	1221.72	2$^+$				
		2140.5 *2*	26 *3*	0.0	0$^+$				
2192.50		1768.4 *2*	100	424.05	2$^+$				
2227.27	2$^-$	493.8 *7*	6.4@ *18*	1733.26	3$^+$	[E1]		1.00×10^{-3} *1*	α(K)=0.000890 *13*; α(L)=9.44×10^{-5} *14*; α(M)=1.526×10^{-5} *22* α(N)=1.535×10^{-6} *22* B(E1)(W.u.)=6.3×10^{-6} *+26−21*
		540.0 *1*	2.2@ *2*	1687.32	2$^+$	[E1]		0.000806 *11*	α(K)=0.000717 *10*; α(L)=7.59×10^{-5} *11*; α(M)=1.227×10^{-5} *17* α(N)=1.235×10^{-6} *17* B(E1)(W.u.)=1.65×10^{-6} *+52−36*
		1005.5 *1*	19.1@ *6*	1221.72	2$^+$	[E1]		0.0002113 *30*	α(K)=0.0001881 *26*; α(L)=1.975×10^{-5} *28*; α(M)=3.19×10^{-6} *4* α(N)=3.23×10^{-7} *5* B(E1)(W.u.)=2.22×10^{-6} *+67−45*
		1803.2 *1*	100@ *3*	424.05	2$^+$	E1(+M2)	0.33 *+18−33*	0.000540 *23*	B(E1)(W.u.)=1.82×10^{-6} *+91−56*; B(M2)(W.u.)<0.79 α(K)=8.6×10^{-5} *19*; α(L)=9.0×10^{-6} *20*; α(M)=1.45×10^{-6} *32* α(N)=1.47×10^{-7} *33*; α(IPF)=0.00044 *4*
2257.55	3$^-$	1035.5 *1*	11.8@ *9*	1221.72	2$^+$	[E1]		0.0001998 *28*	α(K)=0.0001778 *25*; α(L)=1.867×10^{-5} *26*; α(M)=3.02×10^{-6} *4* α(N)=3.05×10^{-7} *4* B(E1)(W.u.)>4.2×10^{-6} E_γ: level-energy difference=1035.8, energy uncertainty is probably underestimated.
		1222.6 *6*	26@ *15*	1034.75	4$^+$	[E1]		0.0002066 *29*	α(K)=0.0001311 *18*; α(L)=1.373×10^{-5} *19*; α(M)=2.220×10^{-6} *31* α(N)=2.246×10^{-7} *32*; α(IPF)=5.94×10^{-5} *9* B(E1)(W.u.)>3.1×10^{-6}
		1833.6 *1*	100@ *3*	424.05	2$^+$	E1(+M2)	0.12 *+28−12*	0.000577 *29*	B(E1)(W.u.)>6.0×10^{-6} α(K)=6.9×10^{-5} *21*; α(L)=7.2×10^{-6} *22*; α(M)=1.17×10^{-6} *35* α(N)=1.2×10^{-7} *4*; α(IPF)=0.00050 *5*
2332.70	(1$^-$)	1908.5 *2*	100 *5*	424.05	2$^+$				
		2333.2 *4*	31 *8*	0.0	0$^+$				

$^{76}_{36}Kr_{40}$-10

Adopted Levels, Gammas (continued)

γ(^{76}Kr) (continued)

E_i(level)	J_i^π	E_γ‡	I_γ#	E_f	J_f^π	Mult.&	δ&	α†	Comments
2452.4	5^+	719.9 *10*	50	1733.26	3^+	E2		1.13×10^{-3} *2*	B(E2)(W.u.)>37 α(K)=0.000998 *14*; α(L)=0.0001082 *16*; α(M)=1.751×10^{-5} *25* α(N)=1.755×10^{-6} *25* I_γ: from ^{40}Ca(^{40}Ca,4pγ).
		1417.2 *5*	100	1034.75	4^+	M1+E2	+4 *2*	0.000288 *5*	B(M1)(W.u.)>1.2×10^{-4}; B(E2)(W.u.)>2.3 α(K)=0.0002055 *29*; α(L)=2.170×10^{-5} *31*; α(M)=3.51×10^{-6} *5* α(N)=3.55×10^{-7} *5*; α(IPF)=5.66×10^{-5} *19*
2571.01	1^-	378.5 *1*	0.70 *3*	2192.50		M1+E2	0.9 *+8−5*	0.0057 *11*	B(M1)(W.u.)=7.8×10^{-5} *+51−43*; B(E2)(W.u.)=0.59 *+46−42* α(K)=0.0051 *10*; α(L)=0.00056 *12*; α(M)=9.1×10^{-5} *19* α(N)=9.1×10^{-6} *18*
		466.9 *13*	0.3 *1*	2104.33	1^-	[M1,E2]		0.0032 *7*	α(K)=0.0029 *6*; α(L)=0.00031 *7*; α(M)=5.1×10^{-5} *12* α(N)=5.1×10^{-6} *12* B(M1)(W.u.)=3.2×10^{-5} *+16−12* if M1, B(E2)(W.u.)=0.199 *+98−73* if E2.
		479.5 *1*	2.25 *8*	2091.49	$(2)^+$	E1(+M2)	<0.17	0.00117 *10*	B(E1)(W.u.)=3.8×10^{-6} *+17−11* α(K)=0.00104 *9*; α(L)=0.000111 *10*; α(M)=1.80×10^{-5} *16* α(N)=1.81×10^{-6} *16* B(M2)(W.u.)<3.1 upper limit exceeds RUL=1.
		883.6 *1*	12.5 *4*	1687.32	2^+	E1		0.000272 *4*	B(E1)(W.u.)=3.4×10^{-6} *+12−7* α(K)=0.0002423 *34*; α(L)=2.55×10^{-5} *4*; α(M)=4.12×10^{-6} *6* α(N)=4.16×10^{-7} *6*
		973.0 *1*	6.1 *2*	1598.07	$(0)^+$	E1		0.0002251 *32*	B(E1)(W.u.)=1.24×10^{-6} *+42−26* α(K)=0.0002004 *28*; α(L)=2.105×10^{-5} *29*; α(M)=3.40×10^{-6} *5* α(N)=3.44×10^{-7} *5*
		1349.3 *1*	2.22 *7*	1221.72	2^+	[E1]		0.000268 *4*	α(K)=0.0001103 *15*; α(L)=1.154×10^{-5} *16*; α(M)=1.866×10^{-6} *26* α(N)=1.889×10^{-7} *26*; α(IPF)=0.0001437 *20* B(E1)(W.u.)=1.70×10^{-7} *+58−35*
		2147.2 *3*	1.39 *7*	424.05	2^+	[E1]		0.000788 *11*	α(K)=5.27×10^{-5} *7*; α(L)=5.49×10^{-6} *8*; α(M)=8.87×10^{-7} *12* α(N)=8.99×10^{-8} *13*; α(IPF)=0.000729 *10* B(E1)(W.u.)=2.63×10^{-8} *+91−55*
		2571.1 *2*	100 *4*	0.0	0^+	[E1]		1.04×10^{-3} *2*	α(K)=4.07×10^{-5} *6*; α(L)=4.23×10^{-6} *6*; α(M)=6.83×10^{-7} *10*

$^{76}_{36}Kr_{40}$-11

Adopted Levels, Gammas (continued)

γ(^{76}Kr) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[#]	E_f	J_f^π	Mult.[&]	δ[&]	α[†]	Comments
									α(N)=6.93×10^{-8} *10*; α(IPF)=0.000999 *14* B(E1)(W.u.)=1.10×10^{-6} *+37−22*
2581.12	(2$^+$)	1359.4 *1*	100 *4*	1221.72	2$^+$				
		1546.1 *3*	47 *19*	1034.75	4$^+$				
2622.0	4$^{(-)}$	364		2257.55	3$^-$				E_γ: from ^{54}Fe(^{28}Si,α2pγ) only.
		395.2 *6*	26	2227.27	2$^-$	Q			
		888 *1*	60	1733.26	3$^+$	D			
		1588 *1*	100	1034.75	4$^+$	D			
2683.7	(5$^-$)	426 *1*	6.7	2257.55	3$^-$				
		1649 *1*	100	1034.75	4$^+$	D+Q	+0.04 *3*		
2700.16	2$^+$	1665.6 *5*	25[@] *4*	1034.75	4$^+$	[E2]		0.000321 *5*	α(K)=0.0001491 *21*; α(L)=1.570×10^{-5} *22*; α(M)=2.54×10^{-6} *4* α(N)=2.57×10^{-7} *4*; α(IPF)=0.0001539 *22* B(E2)(W.u.)>0.014
		2276.6 *4*	100[@] *5*	424.05	2$^+$	[M1,E2]		0.000510 *28*	α(K)=8.34×10^{-5} *12*; α(L)=8.73×10^{-6} *13*; α(M)=1.412×10^{-6} *20* α(N)=1.432×10^{-7} *20*; α(IPF)=0.000417 *28* B(M1)(W.u.)>5.3×10^{-5} if M1, B(E2)(W.u.)>0.014 if E2.
2742.20	(4$^-$)	483		2257.55	3$^-$				E_γ: from ^{54}Fe(^{28}Si,α2pγ) only.
		1009.0 *2*	100	1733.26	3$^+$	D			
2763.2	(6$^+$)	805.7 *5*	100	1957.4	4$^+$	Q			
2774.94	0$^+$,1,2	1553.2 *1*	56 *3*	1221.72	2$^+$				
		2350.9 *4*	100 *4*	424.05	2$^+$				
2816.57	(1,2$^+$)	2046.5 *2*	30 *2*	769.94	0$^+$				
		2392.8 *4*	100 *3*	424.05	2$^+$				
		2816.6 *4*	<56	0.0	0$^+$				
2845.1	(4$^+$)	223 *1*	7.7	2622.0	4$^{(-)}$				
		1112 *1*	100	1733.26	3$^+$	D+Q			
		1811 *1*	7.7	1034.75	4$^+$	D			
2879.4	8$^+$	1019.7 *2*	100	1859.7	6$^+$	E2		0.000473 *7*	B(E2)(W.u.)=128 *+13−11* α(K)=0.000421 *6*; α(L)=4.49×10^{-5} *6*; α(M)=7.26×10^{-6} *10* α(N)=7.32×10^{-7} *10*
2926.59	0$^-$,1$^-$,2$^-$	355.6 *1*	100 *3*	2571.01	1$^-$	M1(+E2)	<0.12	0.00484 *8*	B(M1)(W.u.)=0.0203 *+75−47*; B(E2)(W.u.)<4.2 α(K)=0.00429 *7*; α(L)=0.000464 *7*; α(M)=7.52×10^{-5} *12* α(N)=7.58×10^{-6} *12*
		822.2 *2*	14 *4*	2104.33	1$^-$	M1		0.000703 *10*	α(K)=0.000625 *9*; α(L)=6.63×10^{-5} *9*; α(M)=1.073×10^{-5} *15* α(N)=1.086×10^{-6} *15* B(M1)(W.u.)=2.31×10^{-4} *+95−72*
2944.4	(5$^-$)	261 *1*	39	2683.7	(5$^-$)	D			
		987		1957.4	4$^+$				E_γ: from ^{54}Fe(^{28}Si,α2pγ) only.
		1084 *1*	100	1859.7	6$^+$	D			
2970.1	(0$^+$,1,2)	2546.0 *3*	100	424.05	2$^+$				

$^{76}_{36}Kr_{40}$-12

Adopted Levels, Gammas (continued)

γ(^{76}Kr) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[#]	E_f	J_f^π	Mult.[&]	δ[&]	α[†]	Comments
3024.42	(2)$^-$	324.3 *1*	14.5 *8*	2700.16	2$^+$	[E1]		0.00299 *4*	α(K)=0.00265 *4*; α(L)=0.000283 *4*; α(M)=4.56×10^{-5} *6* α(N)=4.57×10^{-6} *6* B(E1)(W.u.)=3.4×10^{-5} *+17−9*
		443.3 *1*	5.0 *5*	2581.12	(2$^+$)	[E1]		1.31×10^{-3} *2*	α(K)=0.001166 *16*; α(L)=0.0001238 *17*; α(M)=2.000×10^{-5} *28* α(N)=2.010×10^{-6} *28* B(E1)(W.u.)=4.6×10^{-6} *+24−12*
		453.5 *2*	100 *4*	2571.01	1$^-$	M1(+E2)	0.3 *3*	0.00282 *30*	B(M1)(W.u.)=0.0046 *+33−20*; B(E2)(W.u.)<14 α(K)=0.00251 *26*; α(L)=0.000270 *31*; α(M)=4.4×10^{-5} *5* α(N)=4.4×10^{-6} *5*
		766.7 *1*	56.6 *17*	2257.55	3$^-$	M1,E2		0.00089 *7*	α(K)=0.00079 *6*; α(L)=8.4×10^{-5} *7*; α(M)=1.36×10^{-5} *12* α(N)=1.37×10^{-6} *11* B(M1)(W.u.)=5.8×10^{-4} *+30−15* if M1, B(E2)(W.u.)=1.34 *+69−34* if E2.
		920.2 *1*	16.8 *8*	2104.33	1$^-$	M1,E2		0.000578 *27*	α(K)=0.000513 *24*; α(L)=5.47×10^{-5} *28*; α(M)=8.9×10^{-6} *5* α(N)=8.9×10^{-7} *4* B(M1)(W.u.)=1.00×10^{-4} *+52−26* if M1, B(E2)(W.u.)=0.159 *+82−41* if E2.
		1291.3 *3*	8.5 *13*	1733.26	3$^+$	[E1]		0.0002397 *34*	α(K)=0.0001190 *17*; α(L)=1.246×10^{-5} *17*; α(M)=2.014×10^{-6} *28* α(N)=2.039×10^{-7} *29*; α(IPF)=0.0001060 *15* B(E1)(W.u.)=3.2×10^{-7} *+17−9*
		2600.2 *4*	61 *2*	424.05	2$^+$	[E1]		1.06×10^{-3} *2*	α(K)=4.00×10^{-5} *6*; α(L)=4.16×10^{-6} *6*; α(M)=6.72×10^{-7} *9* α(N)=6.82×10^{-8} *10*; α(IPF)=0.001016 *14* B(E1)(W.u.)=2.8×10^{-7} *+14−7*
3096.1	5$^{(+)}$	252 *1*	100	2845.1	(4$^+$)	D			
		354 *1*	20	2742.20	(4$^-$)	D			
		412 *1*	53	2683.7	(5$^-$)	D			
		1236 *1*	53	1859.7	6$^+$	D+Q			
		1363 *1*	13	1733.26	3$^+$				
		2062 *1*	67	1034.75	4$^+$	D			
3175.2	6$^{(-)}$	433		2742.20	(4$^-$)	Q			E_γ: from ^{54}Fe(^{28}Si,α2pγ) only.
		491		2683.7	(5$^-$)				E_γ: from ^{54}Fe(^{28}Si,α2pγ) only.
		553.1 *6*	90	2622.0	4$^{(-)}$	Q			
		723.5 *10*	100	2452.4	5$^+$	D			
3242.1	(1,2$^+$)	2817.3 *9*	100[@] *29*	424.05	2$^+$				
		3242.3 *3*	57[@] *9*	0.0	0$^+$				
3275.90	(1$^+$,2)	1542.6 *2*	35 *4*	1733.26	3$^+$				
		2054.3 *5*	100 *5*	1221.72	2$^+$				

$^{76}_{36}Kr_{40}$-13

Adopted Levels, Gammas (continued)

γ(^{76}Kr) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[#]	E_f	J_f^π	Mult.[&]	δ[&]	α[†]	Comments
3288.4	(7⁻)	525		2763.2	(6⁺)				E_γ: from ^{54}Fe(^{28}Si,α2pγ) only.
		604.9 *5*	85	2683.7	(5⁻)	E2		1.82×10⁻³ *3*	B(E2)(W.u.)=93 *+34−30* α(K)=0.001613 *23*; α(L)=0.0001763 *25*; α(M)=2.85×10⁻⁵ *4* α(N)=2.85×10⁻⁶ *4*
		1428.5 *5*	100	1859.7	6⁺	(E1(+M2))	0.00 *4*	0.000308 *4*	B(E1)(W.u.)=3.9×10⁻⁵ *+14−12*; B(M2)(W.u.)<0.27 α(K)=0.0001001 *15*; α(L)=1.047×10⁻⁵ *16*; α(M)=1.692×10⁻⁶ *25* α(N)=1.714×10⁻⁷ *26*; α(IPF)=0.0001951 *28*
3296.3	6(⁻)	554 *1*	24	2742.20	(4⁻)	Q			
		675 *1*	100	2622.0	4(⁻)	Q			
		1436 *1*	62	1859.7	6⁺	D			
3332.7	7⁺	879.9 *5*	100	2452.4	5⁺	E2		0.000673 *9*	B(E2)(W.u.)>29 α(K)=0.000598 *8*; α(L)=6.42×10⁻⁵ *9*; α(M)=1.038×10⁻⁵ *15* α(N)=1.044×10⁻⁶ *15*
		1474 *1*	72	1859.7	6⁺	(M1+E2)		0.000280 *10*	α(K)=0.0001889 *28*; α(L)=1.990×10⁻⁵ *31*; α(M)=3.22×10⁻⁶ *5* α(N)=3.26×10⁻⁷ *5*; α(IPF)=6.8×10⁻⁵ *8* Mult.: D+Q, ΔJ=1 from γγ(DCO) in (^{40}Ca,4pγ); Δπ=no from level scheme. B(M1)(W.u.)>0.0024 if M1, B(E2)(W.u.)>1.5 if E2.
3406.2	(6⁺)	231 *1*	31	3175.2	6(⁻)				
		311 *1*	100	3096.1	5(⁺)	D			
		461 *1*	31	2944.4	(5⁻)	D			
		561 *1*	56	2845.1	(4⁺)	Q			
3421.6	(0⁺,1,2)	2997.5 *5*	100	424.05	2⁺				
3456.1	(0⁻,1,2)	431.7 *5*	100	3024.42	(2)⁻				
3571.2	(8⁺)	808 *1*	53	2763.2	(6⁺)	Q			
		1712 *1*	100	1859.7	6⁺	Q			
3573.8	(7⁻)	285 *1*	47	3288.4	(7⁻)				
		630 *1*	100	2944.4	(5⁻)				
		890		2683.7	(5⁻)				E_γ: from ^{54}Fe(^{28}Si,α2pγ) only.
3602.81	1⁻	1270.1 *2*	4.0 *3*	2332.70	(1⁻)	M1,E2		0.000306 *7*	α(K)=0.000255 *5*; α(L)=2.70×10⁻⁵ *6*; α(M)=4.37×10⁻⁶ *9* α(N)=4.42×10⁻⁷ *8*; α(IPF)=1.86×10⁻⁵ *25* B(M1)(W.u.)>2.4×10⁻⁵ if M1, B(E2)(W.u.)>0.02 if E2.
		1463.0 *2*	4.2 *9*	2140.17	(1,2⁺)				
		1498.4 *3*	3.4 *4*	2104.33	1⁻	[M1,E2]		0.000282 *10*	α(K)=0.0001829 *27*; α(L)=1.925×10⁻⁵ *30*;

$^{76}_{36}Kr_{40}$-14

Adopted Levels, Gammas (continued)

γ(^{76}Kr) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[#]	E_f	J_f^π	Mult.[&]	α[†]	Comments
								α(M)=3.11×10^{-6} *5* α(N)=3.15×10^{-7} *5*; α(IPF)=7.6×10^{-5} *8* B(M1)(W.u.)>1.2×10^{-5} if M1, B(E2)(W.u.)>0.0072 if E2.
3602.81	1$^-$	3178.3 *2*	100 *12*	424.05	2$^+$	[E1]	1.35×10^{-3} *2*	α(K)=3.04×10^{-5} *4*; α(L)=3.16×10^{-6} *4*; α(M)=5.10×10^{-7} *7* α(N)=5.18×10^{-8} *7*; α(IPF)=0.001313 *18* B(E1)(W.u.)>7.4×10^{-7}
		3602.8 *10*	36 *7*	0.0	0$^+$	E1	1.54×10^{-3} *2*	B(E1)(W.u.)>1.6×10^{-7} α(K)=2.58×10^{-5} *4*; α(L)=2.67×10^{-6} *4*; α(M)=4.32×10^{-7} *6* α(N)=4.38×10^{-8} *6*; α(IPF)=0.001512 *21*
3636.3	1,2$^{(+)}$	3214.2 *14*	100[@] *23*	424.05	2$^+$			
		3636.1 *3*	44[@] *8*	0.0	0$^+$			
3672.24	(0,1,2)	432.0 *9*	19 *10*	3242.1	(1,2$^+$)			
		1567.8 *2*	100 *6*	2104.33	1$^-$			
3781.9	7$^{(+)}$	376 *1*	100	3406.2	(6$^+$)	D		
		686 *1*	60	3096.1	5$^{(+)}$	Q		
3900.9	8$^{(-)}$	568 *1*	15	3332.7	7$^+$	(E1)	0.000715 *10*	B(E1)(W.u.)=2.39×10^{-4} *+84−72* α(K)=0.000636 *9*; α(L)=6.73×10^{-5} *10*; α(M)=1.087×10^{-5} *16* α(N)=1.095×10^{-6} *16*
		726 *1*	100	3175.2	6$^{(-)}$	E2	1.10×10^{-3} *2*	B(E2)(W.u.)=113 *24* α(K)=0.000976 *14*; α(L)=0.0001058 *15*; α(M)=1.711×10^{-5} *25* α(N)=1.716×10^{-6} *25*
3978.0	1,2$^{(+)}$	3553.6 *4*	100[@] *17*	424.05	2$^+$			
		3978.2 *4*	93[@] *14*	0.0	0$^+$			
3986.6	1,2$^{(+)}$	3216.3 *4*	100 *16*	769.94	0$^+$			
		3562.7 *4*	93 *14*	424.05	2$^+$			
4026.72	1,2$^{(+)}$	2805.5 *3*	32 *3*	1221.72	2$^+$			
		3257.4 *5*	27 *9*	769.94	0$^+$			
		3602.2 *2*	100 *24*	424.05	2$^+$			
		4026.8 *6*	51 *9*	0.0	0$^+$			
4068.4	10$^+$	1189 *1*	100	2879.4	8$^+$	E2	0.000342 *5*	B(E2)(W.u.)=122 *+19−15* α(K)=0.000298 *4*; α(L)=3.16×10^{-5} *4*; α(M)=5.12×10^{-6} *7* α(N)=5.16×10^{-7} *7*; α(IPF)=6.76×10^{-6} *16*
4072.8	(9$^-$)	784.4 *4*	100	3288.4	(7$^-$)	[E2]	0.000899 *13*	B(E2)(W.u.)=178 *+30−25* α(K)=0.000798 *11*; α(L)=8.61×10^{-5} *12*; α(M)=1.393×10^{-5} *20* α(N)=1.398×10^{-6} *20*
4097.75	1,2$^{(+)}$	3327.6 *5*	13 *4*	769.94	0$^+$			
		3673.6 *2*	100 *11*	424.05	2$^+$			
		4098.8 *17*	46 *8*	0.0	0$^+$			

$^{76}_{36}Kr_{40}$-15

Adopted Levels, Gammas (continued)

γ(^{76}Kr) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[#]	E_f	J_f^π	Mult.[&]	α[†]	Comments
4118.3	(8$^-$)	822 *1*	100	3296.3	6$^{(-)}$	Q		
4217.8	(8$^+$)	436 *1*	100	3781.9	7$^{(+)}$	D		
		811 *1*	91	3406.2	(6$^+$)	Q		
4289.42	(0,1,2)$^-$	686.5 *4*	14.4 *11*	3602.81	1$^-$	M1,E2	0.00116 *12*	α(K)=0.00103 *10*; α(L)=0.000111 *12*; α(M)=1.80×10^{-5} *20* α(N)=1.81×10^{-6} *19*
		1718.6 *4*	100 *4*	2571.01	1$^-$	M1,E2	0.000319 *16*	α(K)=0.0001401 *20*; α(L)=1.472×10^{-5} *21*; α(M)=2.381×10^{-6} *34* α(N)=2.413×10^{-7} *34*; α(IPF)=0.000162 *15*
		2185.0 *3*	55 *3*	2104.33	1$^-$			
4380.1	(9$^+$)	1047 *1*	100	3332.7	7$^+$			
		1501 *1*	45	2879.4	8$^+$			
4403.7	(9$^+$)	1071 *1*	100	3332.7	7$^+$	[E2]	0.000423 *6*	α(K)=0.000376 *5*; α(L)=4.01×10^{-5} *6*; α(M)=6.48×10^{-6} *9* α(N)=6.53×10^{-7} *9* B(E2)(W.u.)>58
4433.8	(10$^+$)	863 *1*	54	3571.2	(8$^+$)			
		1554 *1*	100	2879.4	8$^+$			
4469.8	(9$^-$)	397		4072.8	(9$^-$)			E_γ: from ^{54}Fe(^{28}Si,α2pγ) only.
		896 *1*	100	3573.8	(7$^-$)	Q		
4700.5	(9$^+$)	483 *1*	58	4217.8	(8$^+$)	D		
		919 *1*	100	3781.9	7$^{(+)}$	Q		
4806.4	(10$^-$)	905.5 *5*	100	3900.9	8$^{(-)}$	[E2]	0.000628 *9*	B(E2)(W.u.)=88 *+35−16* α(K)=0.000557 *8*; α(L)=5.98×10^{-5} *8*; α(M)=9.67×10^{-6} *14* α(N)=9.73×10^{-7} *14*
5051.3	(11$^-$)	978.5 *6*	100	4072.8	(9$^-$)	E2	0.000521 *7*	B(E2)(W.u.)=202 *+41−29* α(K)=0.000463 *7*; α(L)=4.95×10^{-5} *7*; α(M)=8.01×10^{-6} *11* α(N)=8.07×10^{-7} *11*
5106.3	(10$^-$)	988 *1*	100	4118.3	(8$^-$)			
5240.5	10$^{(+)}$	541 *1*	42	4700.5	(9$^+$)	D		
		1022 *1*	100	4217.8	(8$^+$)	Q		
5348.4	12$^+$	1280 *1*	100	4068.4	10$^+$	[E2]	0.000309 *4*	B(E2)(W.u.)>43 α(K)=0.000254 *4*; α(L)=2.69×10^{-5} *4*; α(M)=4.36×10^{-6} *6* α(N)=4.40×10^{-7} *6*; α(IPF)=2.32×10^{-5} *4*
5528.8	(11$^-$)	1059 *1*	100	4469.8	(9$^-$)	Q		
5566.8	(12$^+$)	1133 *1*	100	4433.8	(10$^+$)	Q		
5589.1	(11$^+$)	1209 *1*	100	4380.1	(9$^+$)	Q		
5795.7	11$^{(+)}$	555 *1*	38	5240.5	10$^{(+)}$	D		
		1095 *1*	100	4700.5	(9$^+$)	Q		
5873.1	(12$^-$)	1066.6 *4*	100	4806.4	(10$^-$)	E2	0.000427 *6*	B(E2)(W.u.)=124 *+24−21* α(K)=0.000379 *5*; α(L)=4.04×10^{-5} *6*; α(M)=6.54×10^{-6} *9* α(N)=6.59×10^{-7} *9*
6218.3	(12$^-$)	1112 *1*	100	5106.3	(10$^-$)	Q		

$^{76}_{36}Kr_{40}$-16

Adopted Levels, Gammas (continued)

γ(^{76}Kr) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[#]	E_f	J_f^π	Mult.[&]	α[†]	Comments
6222.3	(13⁻)	1171 *1*	100	5051.3	(11⁻)	E2	0.000351 *5*	B(E2)(W.u.)=149 *+68−35* α(K)=0.000308 *4*; α(L)=3.27×10^{-5} *5*; α(M)=5.29×10^{-6} *7* α(N)=5.34×10^{-7} *8*; α(IPF)=4.71×10^{-6} *12* Additional information 3.
6390.2	(12⁺)	596 *1*	25	5795.7	11$^{(+)}$	(D)		
		1150 *1*	100	5240.5	10$^{(+)}$	Q		
6605.4	(12⁺)	1257 *1*	100	5348.4	12⁺	D		
6650.4	14⁺	1302 *1*	100	5348.4	12⁺	Q		Additional information 4.
6681.8	(13⁻)	1153 *1*	100	5528.8	(11⁻)	Q		
6937.1	(13⁺)	1348 *1*	100	5589.1	(11⁺)	Q		
7032.4	(13⁺)	643 *1*	100	6390.2	(12⁺)	D		
		1235 *1*	40	5795.7	11$^{(+)}$	Q		
7034.9	(14⁺)	1468 *1*	100	5566.8	(12⁺)	Q		
7110.1	(14⁻)	1237 *1*	100	5873.1	(12⁻)	E2	0.000322 *5*	B(E2)(W.u.)>54 α(K)=0.000273 *4*; α(L)=2.90×10^{-5} *4*; α(M)=4.69×10^{-6} *7* α(N)=4.74×10^{-7} *7*; α(IPF)=1.438×10^{-5} *28* Additional information 5.
7435.3	(14⁻)	1217 *1*	100	6218.3	(12⁻)	Q		
7554.3	(14⁺)	521 *1*	38	7032.4	(13⁺)	D		
		1165 *1*	100	6390.2	(12⁺)	Q		
7583.3	(15⁻)	1361 *1*	100	6222.3	(13⁻)	E2	0.000294 *4*	B(E2)(W.u.)>45 α(K)=0.0002235 *31*; α(L)=2.364×10^{-5} *33*; α(M)=3.82×10^{-6} *5* α(N)=3.86×10^{-7} *5*; α(IPF)=4.22×10^{-5} *6* Additional information 6.
7606.4	(14⁺)	1001 *1*	100	6605.4	(12⁺)			
7870.9	(15⁻)	1189 *1*	100	6681.8	(13⁻)	Q		
8000.4	16⁺	1350 *1*	100	6650.4	14⁺	Q		
8432.1	(15⁺)	1495 *1*	100	6937.1	(13⁺)	Q		
8521.1	(16⁻)	1411 *1*	100	7110.1	(14⁻)	E2	0.000289 *4*	α(K)=0.0002075 *29*; α(L)=2.192×10^{-5} *31*; α(M)=3.55×10^{-6} *5* α(N)=3.59×10^{-7} *5*; α(IPF)=5.55×10^{-5} *8*
8666.9	(16⁺)	1632 *1*	100	7034.9	(14⁺)	Q		
8717.4	(16⁻)	1282 *1*	100	7435.3	(14⁻)	Q		
8798.5	(16⁺)	1192 *1*	100	7606.4	(14⁺)	Q		
8829.3	(16⁺)	1275 *1*	100	7554.3	(14⁺)	Q		
9117.4	(17⁻)	1534 *1*	100	7583.3	(15⁻)	E2	0.000295 *4*	α(K)=0.0001753 *25*; α(L)=1.848×10^{-5} *26*; α(M)=2.99×10^{-6} *4* α(N)=3.02×10^{-7} *4*; α(IPF)=9.80×10^{-5} *14*
9217.9	(17⁻)	1347 *1*	100	7870.9	(15⁻)	Q		
9400.5	18⁺	1400 *1*	100	8000.4	16⁺	E2	0.000289 *4*	α(K)=0.0002108 *30*; α(L)=2.228×10^{-5} *31*; α(M)=3.60×10^{-6} *5* α(N)=3.64×10^{-7} *5*; α(IPF)=5.23×10^{-5} *8*
10050.1	(17⁺)	1618 *1*	100	8432.1	(15⁺)	Q		

$^{76}_{36}Kr_{40}$-17

Adopted Levels, Gammas (continued)

γ(^{76}Kr) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[#]	E_f	J_f^π	Mult.[&]	α[†]	Comments
10059.1	(18⁻)	1538 *1*	100	8521.1	(16⁻)	E2	0.000296 *4*	α(K)=0.0001744 *25*; α(L)=1.839×10^{-5} *26*; α(M)=2.97×10^{-6} *4* α(N)=3.01×10^{-7} *4*; α(IPF)=9.96×10^{-5} *15* Additional information 7.
10135	(18⁻)	1418 *1*	100	8717.4	(16⁻)	Q		
10139.5	(18⁺)	1341 *1*	100	8798.5	(16⁺)	Q		
10470.9	(18⁺)	1804 *1*	100	8666.9	(16⁺)			
10640.4	(19⁻)	1523 *1*	100	9117.4	(17⁻)	E2	0.000294 *4*	α(K)=0.0001778 *25*; α(L)=1.875×10^{-5} *26*; α(M)=3.03×10^{-6} *4* α(N)=3.07×10^{-7} *4*; α(IPF)=9.37×10^{-5} *14*
10773.9	(19⁻)	1556 *1*	100	9217.9	(17⁻)	(Q)		
10936.5	20⁺	1536 *1*	100	9400.5	18⁺	E2	0.000295 *4*	α(K)=0.0001748 *25*; α(L)=1.844×10^{-5} *26*; α(M)=2.98×10^{-6} *4* α(N)=3.02×10^{-7} *4*; α(IPF)=9.88×10^{-5} *14* Additional information 8.
11655.1	(20⁻)	1596 *1*	100	10059.1	(18⁻)	E2	0.000306 *4*	α(K)=0.0001621 *23*; α(L)=1.708×10^{-5} *24*; α(M)=2.76×10^{-6} *4* α(N)=2.79×10^{-7} *4*; α(IPF)=0.0001237 *18*
11664	(20⁺)	1525 *1*	100	10139.5	(18⁺)	Q		
11719	(20⁻)	1584 *1*	100	10135	(18⁻)	Q		
11785.1	(19⁺)	1735 *1*	100	10050.1	(17⁺)			
12254.4	(21⁻)	1614 *1*	100	10640.4	(19⁻)	E2	0.000310 *4*	α(K)=0.0001585 *22*; α(L)=1.670×10^{-5} *23*; α(M)=2.70×10^{-6} *4* α(N)=2.73×10^{-7} *4*; α(IPF)=0.0001314 *19*
12397.9	(20⁺)	1927 *1*	100	10470.9	(18⁺)			
12493	(21⁻)	1719 *1*	100	10773.9	(19⁻)			
12695	22⁺	1759 *1*	100	10936.5	20⁺	E2	0.000346 *5*	α(K)=0.0001343 *19*; α(L)=1.412×10^{-5} *20*; α(M)=2.284×10^{-6} *32* α(N)=2.312×10^{-7} *32*; α(IPF)=0.0001952 *28* Additional information 9.
13352.1	(22⁻)	1697 *1*	100	11655.1	(20⁻)	E2	0.000329 *5*	α(K)=0.0001438 *20*; α(L)=1.514×10^{-5} *21*; α(M)=2.448×10^{-6} *34* α(N)=2.478×10^{-7} *35*; α(IPF)=0.0001677 *24*
13388	(22⁺)	1723 *1*	100	11664	(20⁺)	Q		
13500	(22⁻)	1781 *1*	100	11719	(20⁻)			
13613	(21⁺)	1828 *1*	100	11785.1	(19⁺)			
14026	(23⁻)	1772 *1*	100	12254.4	(21⁻)	E2	0.000350 *5*	α(K)=0.0001324 *19*; α(L)=1.392×10^{-5} *20*; α(M)=2.251×10^{-6} *32* α(N)=2.280×10^{-7} *32*; α(IPF)=0.0002011 *29*
14440	(23⁻)	1947 *1*	100	12493	(21⁻)			
14751	24⁺	2055 *1*	100	12695	22⁺			E_γ: tentative 2049 in (^{24}Mg,α2pγ).
15225	(24⁻)	1873 *1*	100	13352.1	(22⁻)	E2	0.000382 *5*	α(K)=0.0001193 *17*; α(L)=1.253×10^{-5} *18*; α(M)=2.026×10^{-6} *28* α(N)=2.052×10^{-7} *29*; α(IPF)=0.0002479 *35*
15346	(24⁺)	1958 *1*	100	13388	(22⁺)	Q		
15503	(24⁻)	2003 *1*	100	13500	(22⁻)			
16009	(25⁻)	1983 *1*	100	14026	(23⁻)	E2	0.000421 *6*	α(K)=0.0001073 *15*; α(L)=1.126×10^{-5} *16*; α(M)=1.821×10^{-6} *26* α(N)=1.845×10^{-7} *26*; α(IPF)=0.000301 *4*

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Adopted Levels, Gammas (continued)

γ(^{76}Kr) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[#]	E_f	J_f^π	Mult.[&]	α[†]	Comments
16650	(25$^-$)	2210 *1*	100	14440	(23$^-$)			
17157	26$^+$	2406 *1*	100	14751	24$^+$	E2	0.000591 *8*	α(K)=7.60×10^{-5} *11*; α(L)=7.94×10^{-6} *11*; α(M)=1.285×10^{-6} *18* α(N)=1.303×10^{-7} *18*; α(IPF)=0.000506 *7*
17327	(26$^-$)	2102 *1*	100	15225	(24$^-$)	E2	0.000467 *7*	α(K)=9.65×10^{-5} *14*; α(L)=1.011×10^{-5} *14*; α(M)=1.636×10^{-6} *23* α(N)=1.658×10^{-7} *23*; α(IPF)=0.000358 *5*
17550	(26$^+$)	2204 *1*	100	15346	(24$^+$)	Q		
17859	(26$^-$)	2356 *1*	100	15503	(24$^-$)			
18256	(27$^-$)	2247 *1*	100	16009	(25$^-$)	E2	0.000525 *7*	α(K)=8.56×10^{-5} *12*; α(L)=8.97×10^{-6} *13*; α(M)=1.450×10^{-6} *20* α(N)=1.470×10^{-7} *21*; α(IPF)=0.000429 *6*
19172	(27$^-$)	2522 *1*	100	16650	(25$^-$)			
19741	(28$^-$)	2414 *1*	100	17327	(26$^-$)	E2	0.000595 *8*	α(K)=7.55×10^{-5} *11*; α(L)=7.90×10^{-6} *11*; α(M)=1.277×10^{-6} *18* α(N)=1.295×10^{-7} *18*; α(IPF)=0.000510 *7*
19950	28$^+$	2793 *1*	100	17157	26$^+$	E2	0.000752 *11*	α(K)=5.89×10^{-5} *8*; α(L)=6.15×10^{-6} *9*; α(M)=9.94×10^{-7} *14* α(N)=1.008×10^{-7} *14*; α(IPF)=0.000686 *10*
20045	(28$^+$)	2495 *1*	100	17550	(26$^+$)			
20538	(28$^-$)	2678 *1*	100	17859	(26$^-$)			
20815	(29$^-$)	2558 *1*	100	18256	(27$^-$)	E2	0.000655 *9*	α(K)=6.83×10^{-5} *10*; α(L)=7.14×10^{-6} *10*; α(M)=1.155×10^{-6} *16* α(N)=1.171×10^{-7} *16*; α(IPF)=0.000578 *8*
22583	(30$^-$)	2842 *1*	100	19741	(28$^-$)			
22790	(30$^+$)	2745 *1*	100	20045	(28$^+$)			
23157	(30$^+$)	3207 *1*	100	19950	28$^+$			
23742	(31$^-$)	2927 *1*	100	20815	(29$^-$)			
25868	(32$^-$)	3285 *1*	100	22583	(30$^-$)			
27083	(33$^-$)	3341 *1*	100	23742	(31$^-$)			
966.0+x	(13$^+$)	966 *1*	100	x	(11$^+$)			
2097.0+x	(15$^+$)	1131 *1*	100	966.0+x	(13$^+$)	Q		
3390.0+x	(17$^+$)	1293 *1*	100	2097.0+x	(15$^+$)	Q		
4847.0+x	(19$^+$)	1457 *1*	100	3390.0+x	(17$^+$)	Q		
6472.1+x	(21$^+$)	1625 *1*	100	4847.0+x	(19$^+$)	Q		
8309.1+x	(23$^+$)	1837 *1*	100	6472.1+x	(21$^+$)	Q		
10382+x	(25$^+$)	2073 *1*	100	8309.1+x	(23$^+$)	Q		
12696+x	(27$^+$)	2314 *1*	100	10382+x	(25$^+$)			
15234+x	(29$^+$)	2538 *1*	100	12696+x	(27$^+$)			

[†] Additional information 10.

[‡] Values for low-spin (J≤4) states are from ^{76}Rb ε decay, whereas data are higher-spin states are from ^{40}Ca(^{40}Ca,4pγ), ^{54}Fe(^{28}Si,α2pγ), and (^{24}Mg,α2pγ), unless otherwise noted.

[#] Detailed intensity data are available for γ rays from low-spin (J≤4) states populated in ^{76}Rb ε decay. Note that for γ rays from some of the levels, more precise

$^{76}_{36}Kr_{40}$-19

Adopted Levels, Gammas (continued)

$\gamma(^{76}Kr)$ (continued)

branching ratios (listed under comments in ^{76}Rb ε decay dataset) are available which are adopted here in place of branching ratios deduced from relative intensity data. For high-spin states, only nominal intensities, without explicitly quoted uncertainties, are available from only $^{40}Ca(^{40}Ca,4p\gamma)$ and $(^{12}C,2n\gamma)$. For the latter dataset, evaluators assigned 10% uncertainty for Iγ values taken from (1982Pi01). Intensity data were not provided in $^{54}Fe(^{28}Si,\alpha 2p\gamma)$ reaction.

@ From ^{76}Rb ε decay, when a level is also populated in other reactions. Branching ratios listed in comments in ^{76}Rb ε decay dataset are used in place of relative intensities.

& From $\gamma(\theta)$ and $\gamma\gamma(\theta)$ in $(^{12}C,2n\gamma)$ for high-spin (J>4) states. Transitions with dominant quadrupole content are assumed as E2 from comparison of T1/2(level) and RUL for E2 and M2. For low-spin (J≤4) levels, multipolarity assignments are generally from conversion coefficients deduced from ce data in ^{76}Rb ε decay.

a Placement of transition in the level scheme is uncertain.

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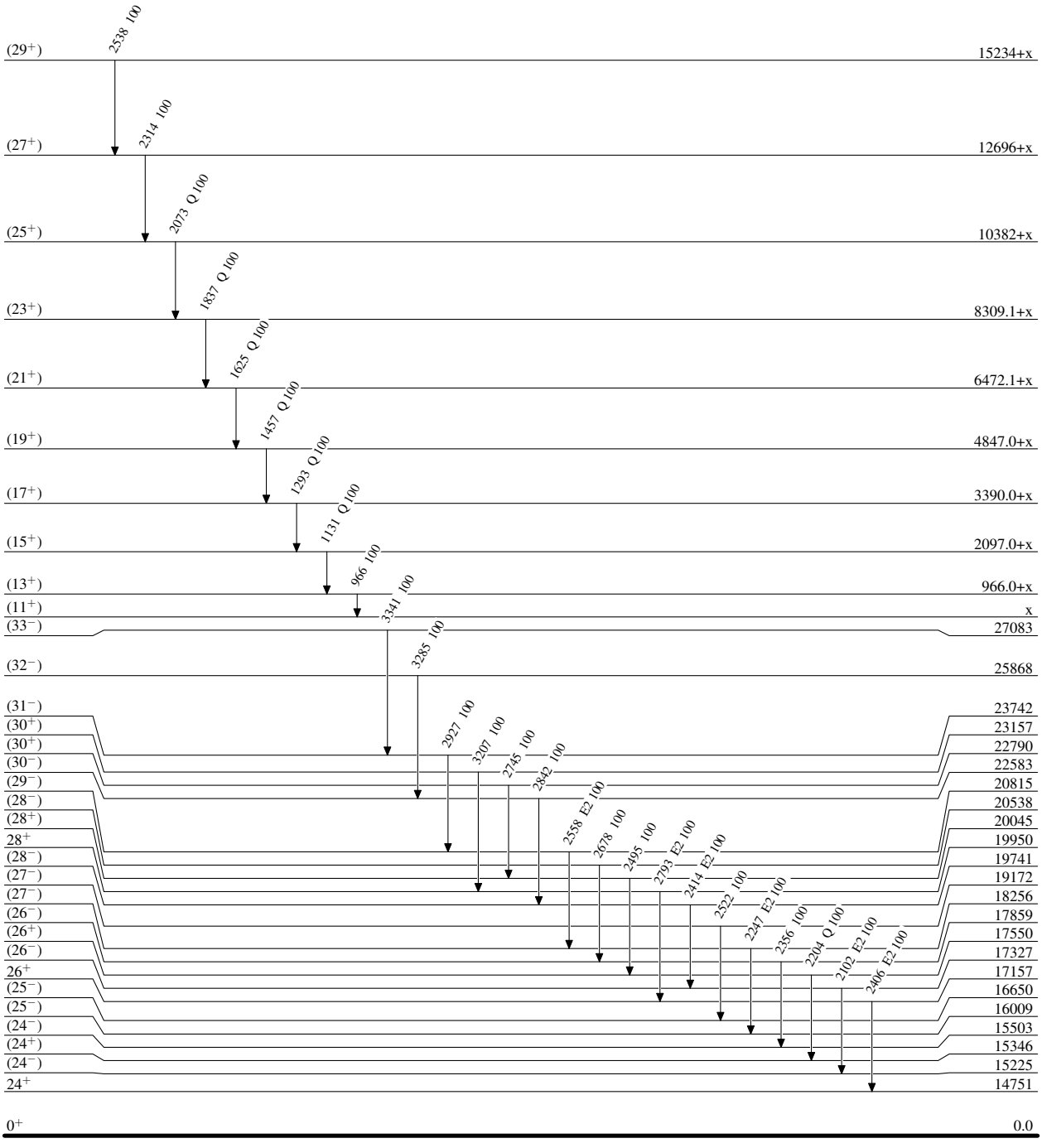
Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level



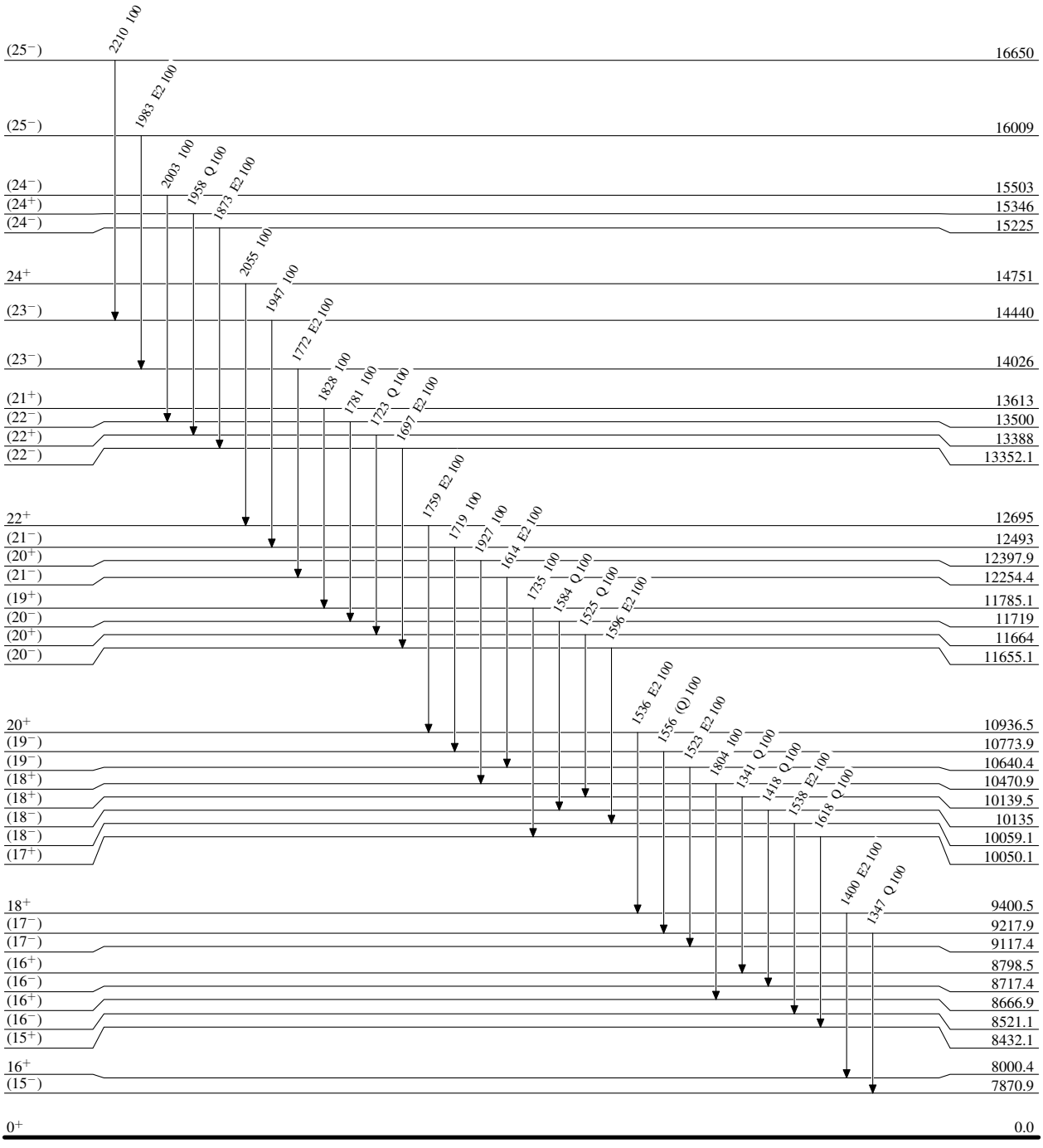
14.79 h *5*

$^{76}_{36}Kr_{40}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



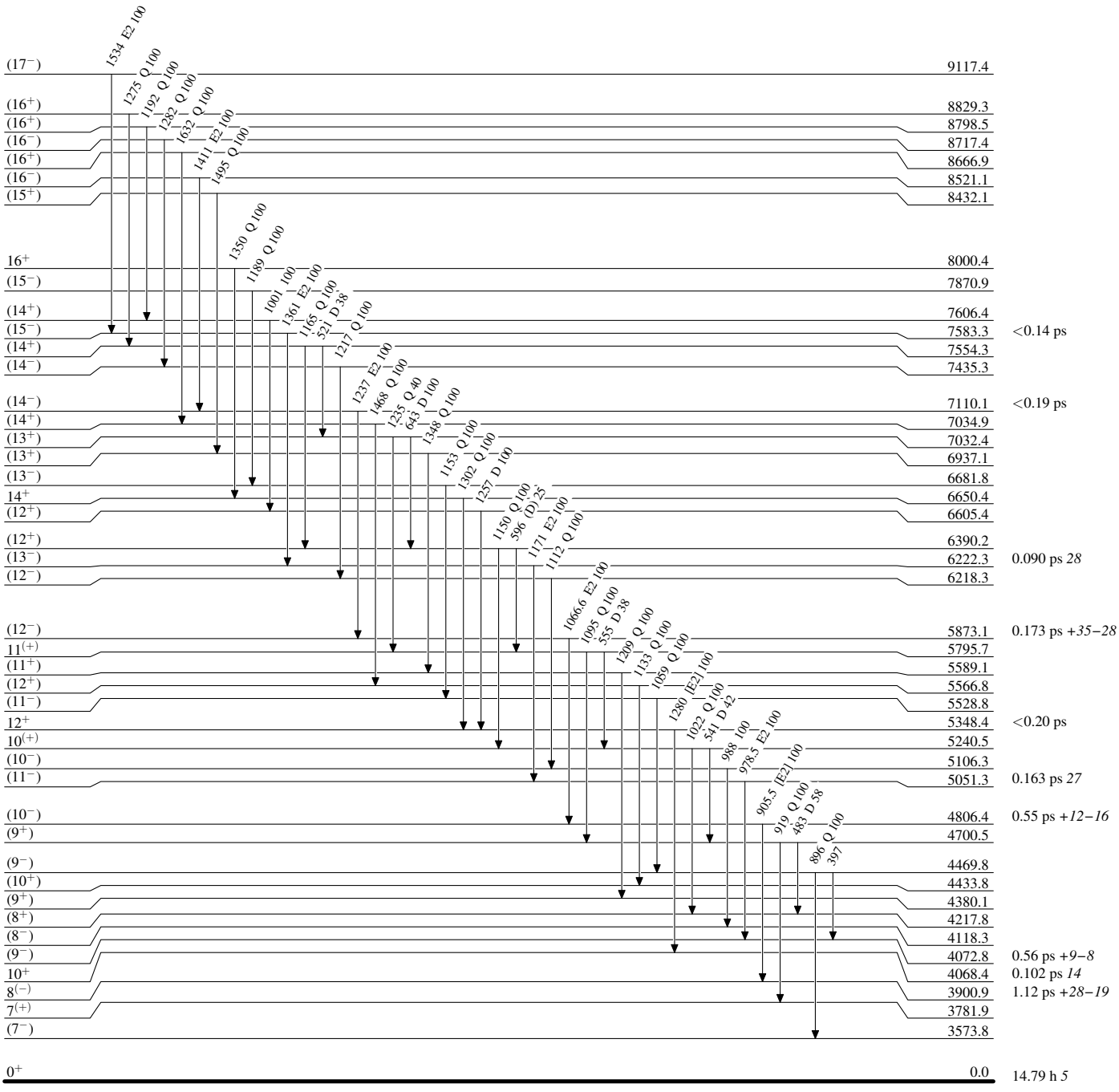
14.79 h *5*

$^{76}_{36}Kr_{40}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

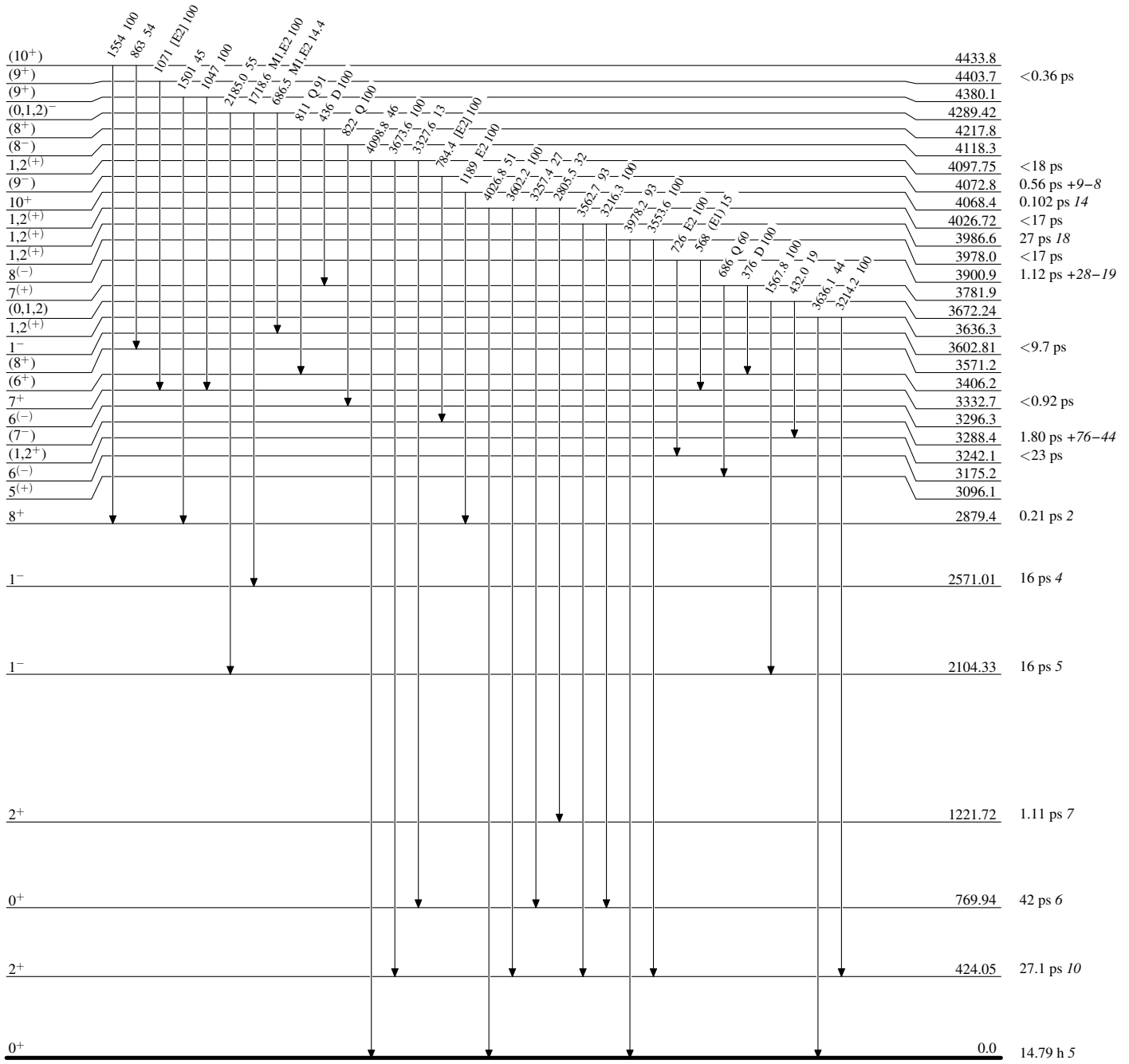


$^{76}_{36}Kr_{40}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

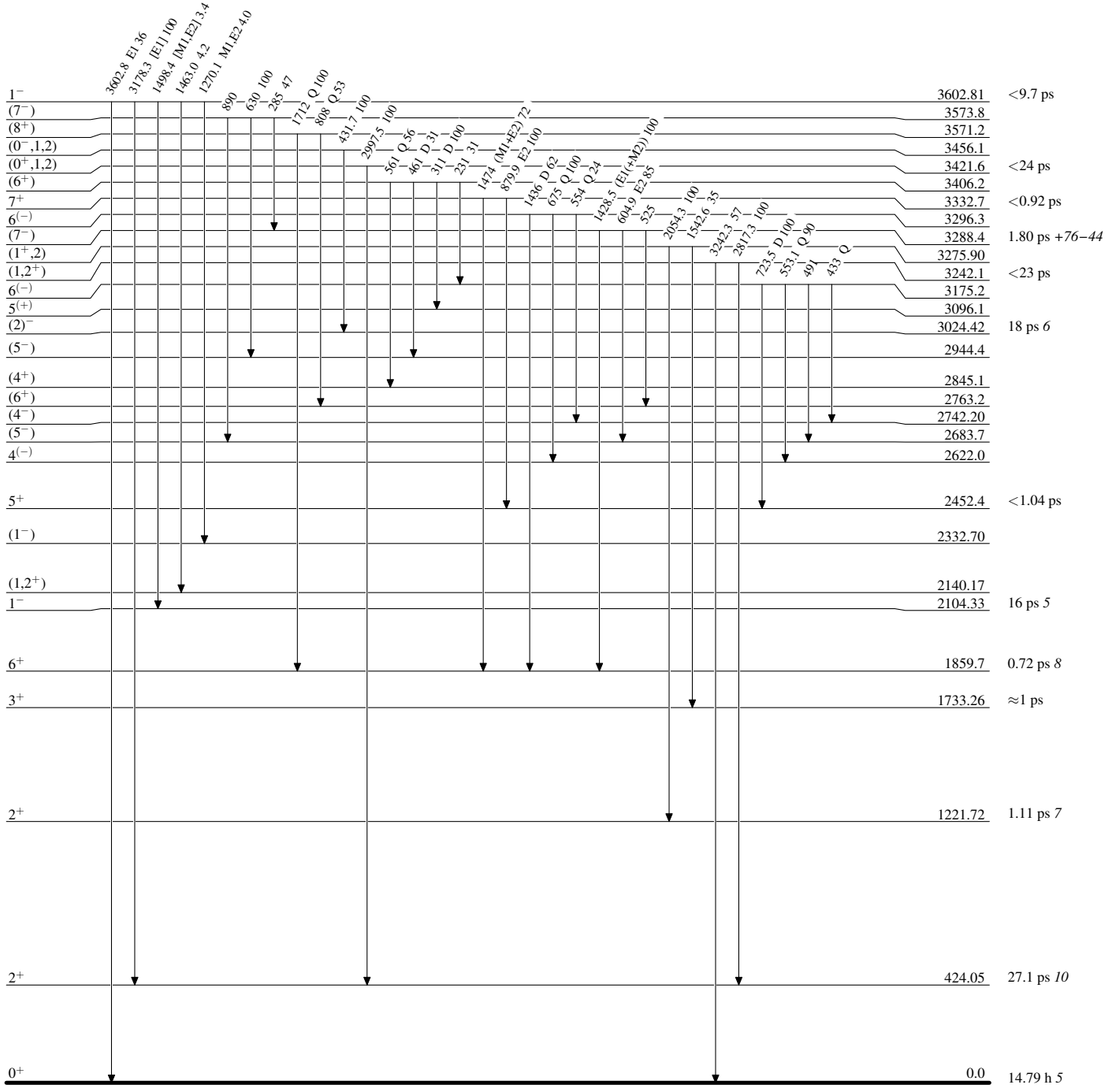


$^{76}_{36}Kr_{40}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

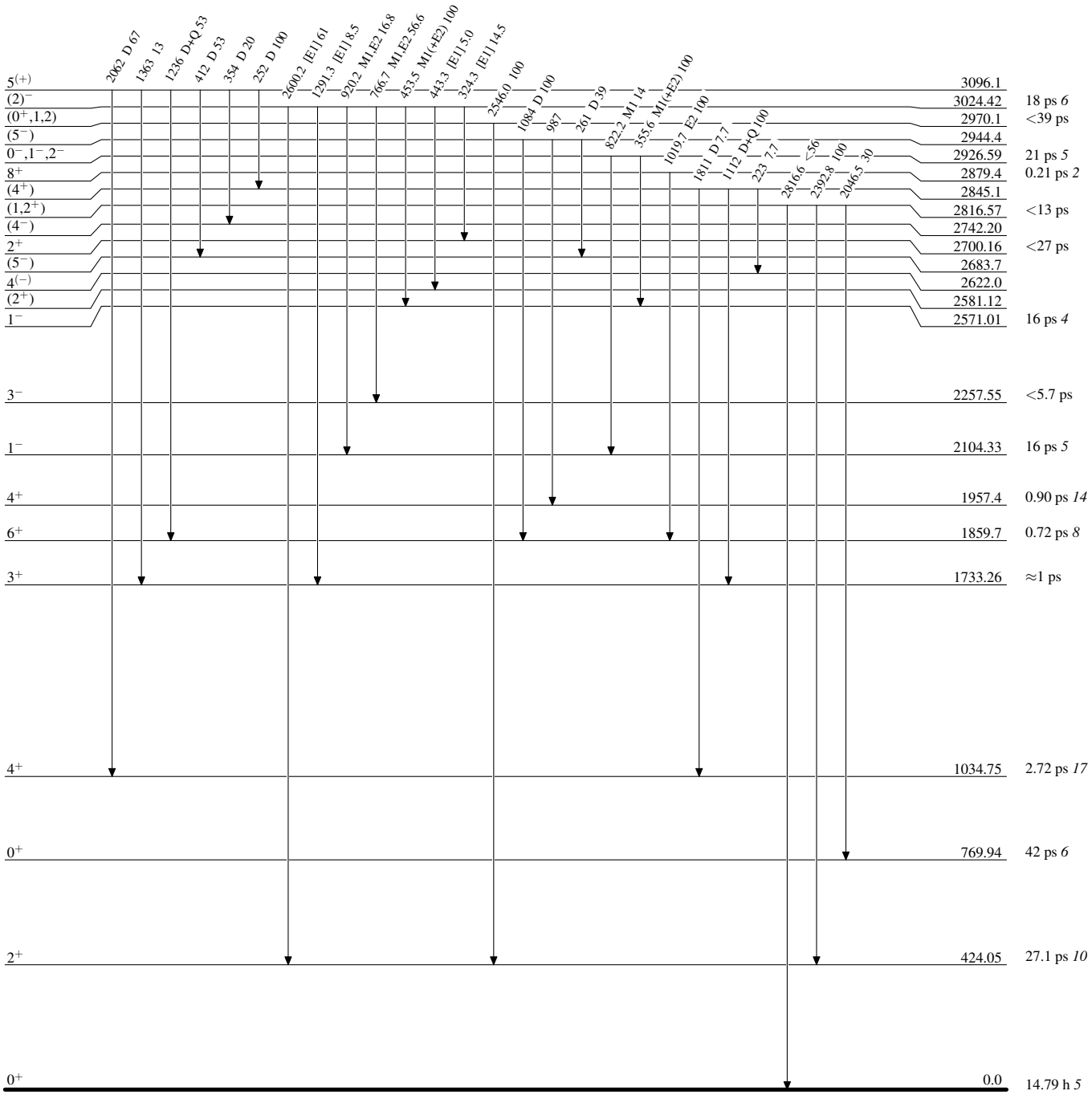


$^{76}_{36}Kr_{40}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

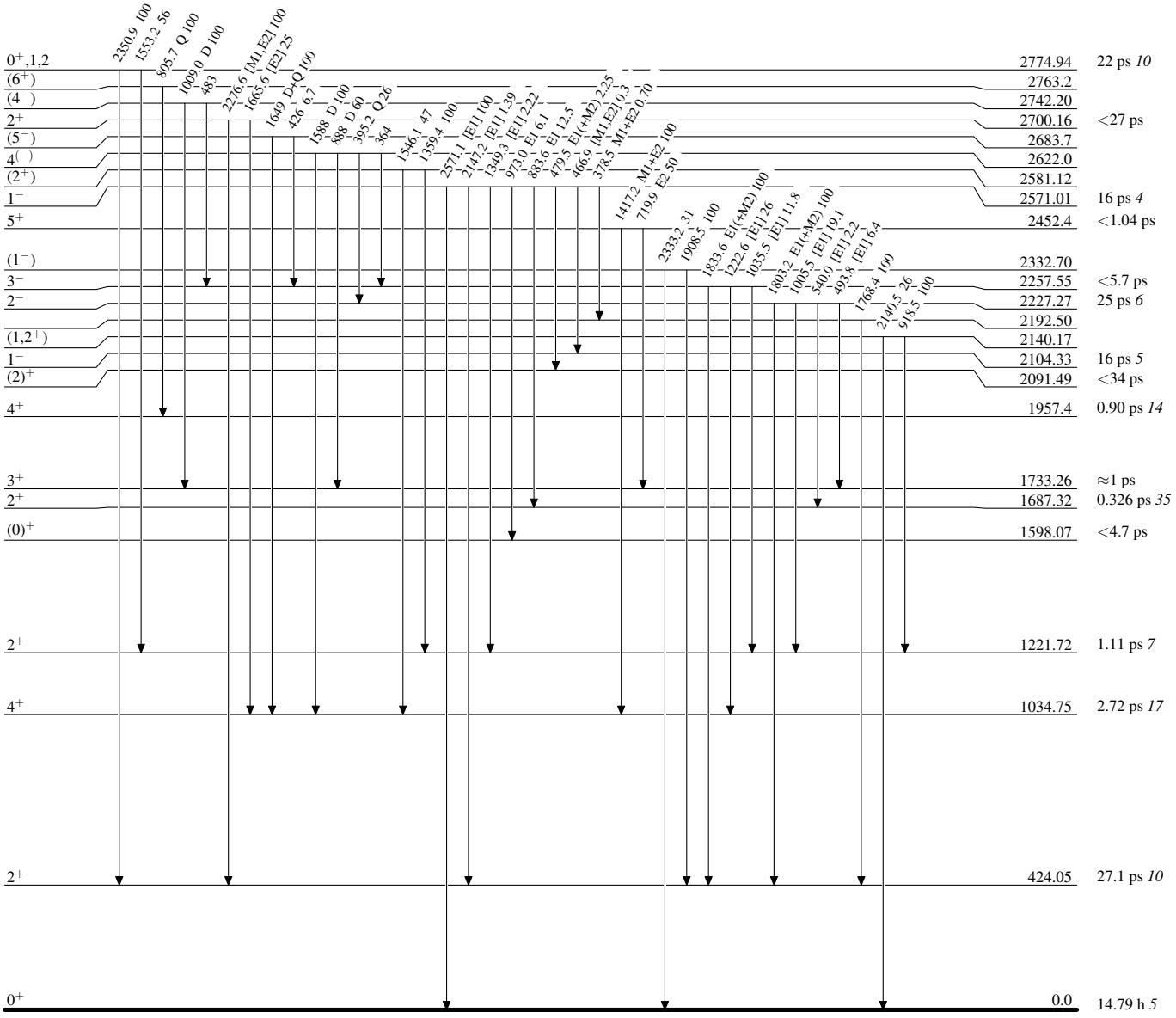


$^{76}_{36}Kr_{40}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



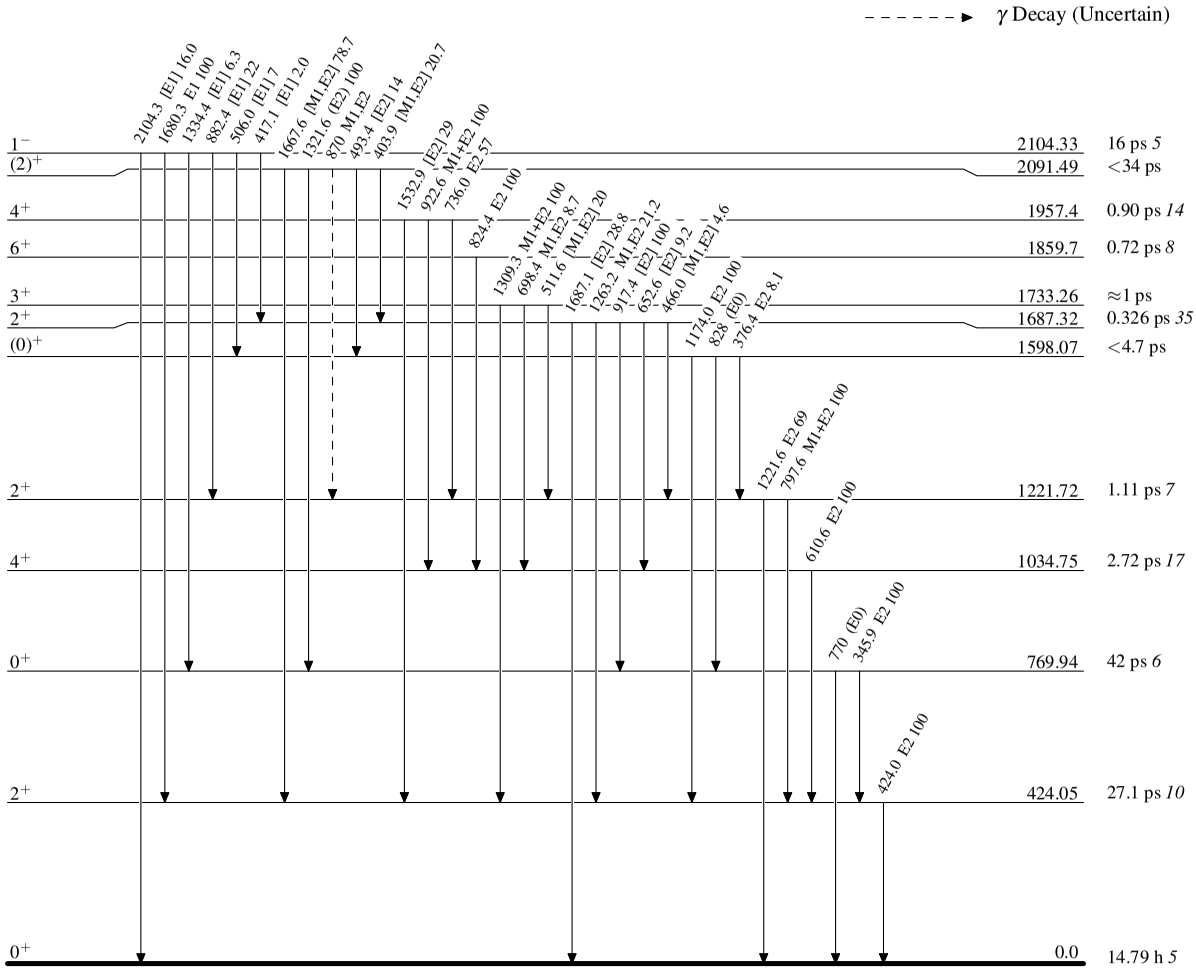
$^{76}_{36}Kr_{40}$

Adopted Levels, Gammas

Legend

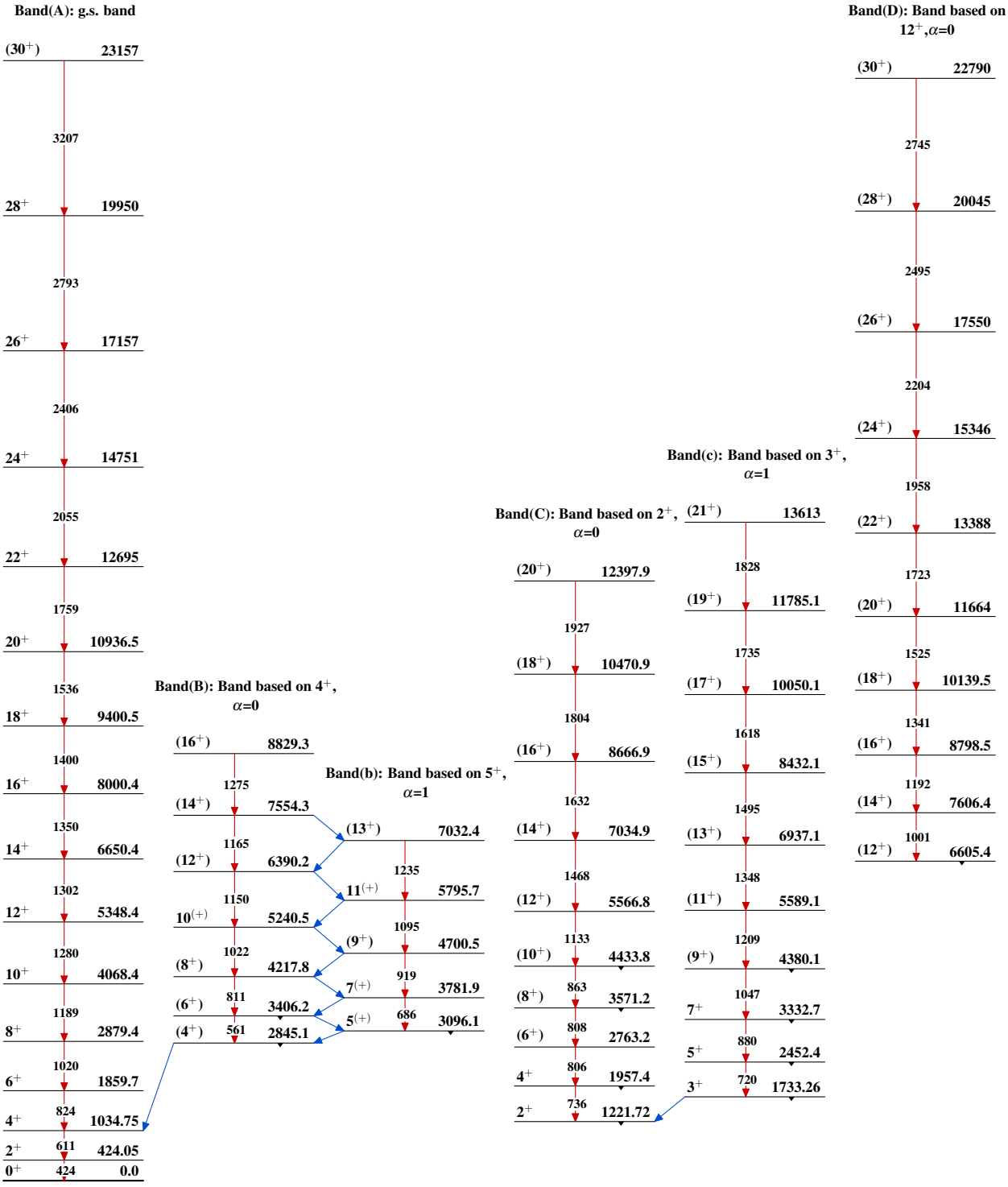
Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{76}_{36}Kr_{40}$

Adopted Levels, Gammas



Adopted Levels, Gammas (continued)