

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. K. Tuli, E. Browne	NDS	157, 260 (2019)	1-Mar-2019

$Q(\beta^-) = -4404.3$; $S(n) = 10966.9$ 11; $S(p) = 9903.7$ 10; $Q(\alpha) = -5990.76$ 18 2017Wa10

Isotopic shift and mean-square radius measurements: 1990Ca26, 1989Tr04, 1981Ge06, 1979Ge06.

Theoretical calculations:

g.s. properties, rms radius, isotope shift, deformation using relativistic mean field theory: 1995La07.

Symmetry character of bands, IBA model: 2000Gi16 interacting boson model: 1995De02, 1991Jo03, 1991Do08, 1990Ba11, 1983Me08.

Microscopic studies: 1992Ho18.

Boson expansion theory: 1988Pe04.

Pairing-vibration model: 1983Ta03, 1982Br01.

Hartree-Fock calculations of E2 transition probabilities: 1982Ah06.

Ground state f-p-g shell occupancies: 1985Na12, 1982Ko10.

Microscopic analysis of deformations: 1985Na02.

Potential energy surfaces: 1981Bu06.

 ^{82}Kr LevelsCross Reference (XREF) Flags

A	^{82}Rb ε decay (1.2575 min)	E	$^{80}\text{Se}(\alpha, 2n\gamma)$	I	$^{81}\text{Br}(^3\text{He}, d)$
B	^{82}Rb ε decay (6.472 h)	F	(HI, xn γ)	J	$^{82}\text{Kr}(p, p')$
C	^{82}Br β^- decay (6.13 min)	G	$^{79}\text{Br}(\alpha, p)$	K	$^{84}\text{Kr}(p, t)$
D	^{82}Br β^- decay (35.282 h)	H	Coulomb excitation		

E(level) [†]	J ^π	T _{1/2} [‡]	XREF	Comments
0.0 [#]	0 ⁺	stable	ABCDEFGHIJK	$\Delta\langle r^2 \rangle(^{82}\text{Kr}-^{86}\text{Kr}) = 0.071 \text{ fm}^2$ 3 (1995Ke04, total uncertainty including systematic uncertainty is 0.028), 0.053 fm^2 7 (1990Sc30, the uncertainty is 0.044 fm^2 including systematic errors). $\Delta\langle r^2 \rangle(^{82}\text{Kr}-^{81}\text{Kr}) = -0.028 \text{ fm}^2$ 5 (1996Li25) (uncertainty only statistical). $\Delta\langle r^2 \rangle(^{83}\text{Kr}-^{82}\text{Kr}) = -0.040 \text{ fm}^2$ 4 (1996Li25) (uncertainty only statistical).
776.526 [#] 8	2 ⁺	4.45 ps 18	ABCDEFGHII	$\mu = +0.80$ 4 (2001Me20) J^π : L(p, p')=2. First excited state in Coulomb excitation. $T_{1/2}$: from measured B(E2) in Coul. Ex. Others: 4.7 ps 7 from recoil-distance Doppler shift in ($\alpha, 2n\gamma$) (1984Ke10), 4.8 ps 8 from resonance fluorescence (1966Be16).
1474.900 [@] 8	2 ⁺	≈12 ps	ABCDEFGHII	J^π : L(p, p')=2. $T_{1/2}$: from B(E2) measured in Coulomb excitation; other: <5 ps (HI, xn γ).
1487.70 5	0 ⁺	10 ps 3	A C HI	J^π : E0 to 0 ⁺ . $T_{1/2}$: from B(E2) measured in Coulomb excitation.
1820.536 [#] 9	4 ⁺	0.67 ps 25	ABCDEFGHII	$\mu = +1.2$ 8 (2001Me20) $T_{1/2}$: from B(E2) measured in Coulomb excitation. Others: 1.0 ps +10-6 from recoil distance, 0.8 ps +10-4 from Doppler shift attenuation, both observed in ($\alpha, 2n\gamma$) (1984Ke10). J^π : L(p, p')=4.
1885?			I	
1956.775 11	(2 ⁺)	1.1 ps 8	ABCDE GHI	J^π : log ft=7.4 from 1 ⁺ , γ to 0 ⁺ , γ from (4 ⁺). $T_{1/2}$: from B(E2) measured in Coulomb excitation.
2094.019 ^{&} 9	3 ⁺		ABCDEFG	J^π : (1317 γ)(776 γ)(θ) (1977CoZO, 1966Et01). E2+M1 γ to 2 ⁺ .
2171.81 5	0 ⁺		A CD H	J^π : uniquely determined by $\gamma\gamma(\theta)$ in β^+ decay (1.273 min).

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Adopted Levels, Gammas (continued) **^{82}Kr Levels (continued)**

E(level) [†]	J ^π	T _{1/2} [‡]	XREF	Comments
2426.895 9	(4 ⁺)	0.57 ps 16	B DEFGH	J ^π : $\gamma(\theta)$ in ($\alpha, 2n\gamma$) indicates J=4 (1984Ke10, 1983Me08) with quadrupole γ to 2 ⁺ probably being E2. $\gamma\gamma(\theta)$ results in β^- decay are in strong conflict (1980So06 and 1968Gu08 concluded J=3, while 1977CoZO deduced J=4). T _{1/2} : from B(E2) measured in Coulomb excitation.
2450.19 5	0 ⁺	≈0.17 ps	A H	J ^π : from $\gamma\gamma(\theta)$ in ^{82}Rb ε decay (1.2575 min). T _{1/2} : from B(E2) measured in Coulomb excitation.
2480.07 4	2 ⁺		A C G	J ^π : log ft=5.5 from 1 ⁺ , γ to 0 ⁺ , 4 ⁺ .
2547.452 18	(3 ⁻)		ABCDE g JK	J ^π : log ft=7.6, (log f ^{1u} t=7.8) from 2 ⁻ , γ from 5 ⁽⁻⁾ . Also supported by $\gamma(\theta)$ in ($\alpha, 2n\gamma$).
2556.184 @ 9	(4 ⁺)	1.4 ps 4	BCDEFGH	J ^π : stretched (E2) to 2 ⁺ indicated by $\gamma(\theta)$ in ($\alpha, 2n\gamma$) (1984Ke10). 1983Me08 deduced J=3 from their $\gamma(\theta)$ data.
2648.369 9	4 ⁻	<7 ps	B DEFg	T _{1/2} : from B(E2) measured in Coulomb excitation. J ^π : log ft=5.0 from 5 ⁻ , E1 γ to 3 ⁺ .
2655.96 4	2 ⁺	0.03 ps 1	A C gH	T _{1/2} : from (HI, xn γ). J ^π : from $\gamma\gamma(\theta)$ in ^{82}Rb ε decay (1.2575 min). T _{1/2} : from B(E2) measured in Coulomb excitation.
2676.0 3			A	
2684.45 12			A	
2797.56? 5			B	
2828.137 12	5 ⁽⁻⁾	14 ps 7	B DEF	J ^π : J=3,5 from (1007 γ)(1044 γ)(θ) (1969Li14). log ft=6.1, (log f ^{1u} t=5.9) from 5 ⁻ , Polarization of 1007 γ in ($\alpha, 2n\gamma$) indicates $\pi=-$ (1984Ke10).
2849.75 9	(4 ⁺)		B G	J ^π : log ft=7.1, (log f ^{1u} t=8.1) from 5 ⁻ , γ to 2 ⁺ .
2919.73# 8	(6 ⁺)	3 ps 1	B DEF H	J ^π : stretched (E2) cascade indicated by $\gamma(\theta)$ in ($\alpha, 2n\gamma$). T _{1/2} : average of 2 ps 1 from Doppler-shift attenuation, 3 ps +2-1 from recoil distance, both observed in ($\alpha, 2n\gamma$), and 4 ps 2 from recoil distance observed in (HI, xn γ). Other: 0.8 ps 4 from B(E2) measured in Coulomb excitation.
2944.52 4	2 ⁺		A G	J ^π : from $\gamma\gamma(\theta)$ in ^{82}Rb ε decay (1.2575 min), log ft=5.4 from 1 ⁺ , γ to 0 ⁺ .
2964.82 16			A	
2993.43 18			A	
3011.21 5	(5 ⁻)	2 ps 1	B EFG	J ^π : log ft=5.9 from 5 ⁻ , $\gamma(\theta)$ in ($\alpha, 2n\gamma$). T _{1/2} : From (HI, xn γ).
3037.85 7	(6 ⁻)	0.58 ns 7	B EF	J ^π : from $\gamma(\theta)$ in ($\alpha, n\gamma$). T _{1/2} : from recoil-distance Doppler shift in ($\alpha, 2n\gamma$). Others: 0.55 ns 14 from $\gamma(t)$, 0.26 ns 7 from recoil distance in (HI, xn γ).
3077? 10			G	
3131.34 17			A	
3167.57 9	(6 ⁺)	0.76 ps 21	EF H	J ^π : from $\gamma(\theta)$ in ($\alpha, n\gamma$). T _{1/2} : other: 0.7 ps 4 from B(E2) measured in Coulomb excitation.
3186.93& 20			E g	
3187.15 5	(0 ⁺)		A g	J ^π : log ft=5.5 from 1 ⁺ , Q to 2 ⁺ .
3207.1 3			A	
3217.1 3			A	
3234.07 10	(0 ⁺)		A	J ^π : ε from 1 ⁺ , Q γ to 2 ⁺ .
3255.90 13	(6 ⁺)	0.36 ps 10	EF	J ^π : from $\gamma(\theta)$ in ($\alpha, 2n\gamma$).
3285.81 5			A	
3322 7	3 ⁻		G JK	XREF: K(3297). E(level): weighted average of 3320 keV 8 (α, p) and 3328 keV 15 (p, p'). J ^π : L(p, p')=3.
3348.49 7	(6 ⁻)	42 ps 14	EF	J ^π : from $\gamma(\theta)$ in ($\alpha, n\gamma$).
3355.99 7	1,2 ⁽⁺⁾		A G	J ^π : log ft=6.7, (log f ^{1u} t=7.3) from 1 ⁺ , γ to 0 ⁺ .
3392.2? 7			B	

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Adopted Levels, Gammas (continued) ^{82}Kr Levels (continued)

E(level) [†]	J ^π	T _{1/2} [‡]	XREF	Comments
3438.15 12			A	
3457.21 14	1,2(+)		A G	J ^π : log ft=7.1 from 1 ⁺ , γ to 0 ⁺ .
3461.66 20	(8 ⁺)	96 ps 12	EF	J ^π : stretched (E2) cascade indicated by γ(θ) in (α,2nγ).
3496.60 10	(7 ⁻)	14 ps +14-7	EF	J ^π : stretched (E2) cascade indicated by γ(θ) in (α,2nγ).
3565.13 5	(0 ⁺)		A	J ^π : log ft=5.8 from 1 ⁺ , γ to 2 ⁺ .
3595.14 9	(7 ⁻)	>7 ps	EFG	J ^π : from γ(θ) in (α,nγ).
3655.56 9	4(+),5,6(+)		B G	XREF: G(3643).
				J ^π : log ft=6.4, (log f ^{lu} t=6.8) from 5 ⁻ , γ's to 4 ⁺ and (6 ⁺).
3681 10			G	
3709.37 17	(7 ⁺)	<0.8 ps	EFG	XREF: G(3681).
				J ^π : from γ(θ) in (α,2nγ).
3716.14 6	(2 ⁺)		A	J ^π : log ft=5.7 from 1 ⁺ ; γ to 2 ⁺ , 3 ⁺ , (3 ⁻); 0 ⁺ from γγ(θ) in ^{82}Rb ε decay (1.2575 min).
3742.76? 6			A G	XREF: G(3733).
3815.25 7	1,2(+)		A	J ^π : log ft=6.5 from 1 ⁺ , γ to 0 ⁺ .
3836.13 6	1,2		A g	J ^π : log ft=5.9 from 1 ⁺ , γ to 0 ⁺ .
3846.14 17			E g	
3881.00 7	1,2(+)		A	J ^π : log ft=6.1 from 1 ⁺ , γ to 0 ⁺ .
3910.85 12	1,2(+)		A g	XREF: g(3930).
				J ^π : log ft=7.0, (log f ^{lu} t=7.0) from 1 ⁺ , γ to 0 ⁺ .
3920.01 24			A	
3951.5 4	4,5,6(+)		B g	XREF: g(3930).
				J ^π : log ft=7.0, (log f ^{lu} t=7.0) from 5 ⁻ , γ to 4 ⁺ .
3958.05 14	1,2(+)		A	J ^π : log ft=7.0 from 1 ⁺ . γ to 0 ⁺ .
3997.91 10	4,5,6(+)		B	J ^π : log ft=6.3, (log f ^{lu} t=6.2) from 5 ⁻ , γ to 4 ⁺ .
4016.28 13	(8 ⁺)	1.0 ps +10-4	EF	J ^π : stretched (E2) cascade indicated by γ(θ) in (α,2nγ).
4033.80 12		1.1 ps 3	E	
4063.50 10	4,5,6(+)		B	J ^π : log ft=6.4 (log f ^{lu} t=6.2) from 5 ⁻ , γ to 4 ⁺ .
4068.05 8	4,5(+)		B	J ^π : log ft=6.0, (log f ^{lu} t=5.8) from 5 ⁻ , γ to 3 ⁺ .
4125.13 14	(8 ⁺)	6 ps 2	E	J ^π : stretched (E2) cascade indicated by γ(θ) in (α,2nγ).
4135.6? 5			B	
4170.94 16	(8 ⁻)	2.4 ps +24-8	EF	J ^π : from γ(θ) in (α,nγ).
4343.1 3		1.0 ps +24-3	E	
4437.6 4		0.17 ps +8-4	E	
4609.50 20	(10 ⁺)	1.2 ps +7-3	EF	J ^π : stretched (E2) cascade indicated by γ(θ) in (α,2nγ).
4667.91 17	(9 ⁻)	1.1 ps 3	EF	J ^π : from γ(θ) in (α,nγ).
4746.81 23	(9 ⁻)	0.6 ps 1	EF	J ^π : stretched (E2) cascade indicated by γ(θ) in (α,2nγ).
4822.15 16	(10 ⁺)	1.2 ps 2	EF	J ^π : stretched (E2) cascade indicated by γ(θ) in (α,2nγ).
4896.7? 11			E	
5011.88 22	(8 ⁺ ,9,10 ⁺)		E	J ^π : γ's to (8 ⁺) and (10 ⁺).
5325.41 22	(10 ⁻)	<1.0 ps	EF	J ^π : from γ(θ) in (α,nγ).
5702.8 11			E	
5992.5 4		0.3 ps 1	E	
6009.5 4			E	
6011.7 4		0.39 ps 7	E	

[†] From least-squares fit to E_γ.[‡] From recoil-distance Doppler shift in (α,2nγ), except where given otherwise.

Band(A): π=+ band-1. Yrast band (2000Gi16).

@ Band(B): π=+ band-2. Band built on 2⁺ (2000Gi16).& Band(C): π=+ band-3. Band built on 3⁺ (2000Gi16).

Adopted Levels, Gammas (continued)

$\gamma(^{82}\text{Kr})$									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^{\ddagger@}$	$\alpha^\#$	Comments
776.526	2 ⁺	776.511 10	100	0.0	0 ⁺	E2		9.23×10 ⁻⁴	$\alpha(\text{K})=0.000819$ 12; $\alpha(\text{L})=8.84\times10^{-5}$ 13; $\alpha(\text{M})=1.430\times10^{-5}$ 20 $\alpha(\text{N})=1.436\times10^{-6}$ 21 B(E2)(W.u.)=21.3 9
1474.900	2 ⁺	698.361 10	100.0 8	776.526 2 ⁺	2 ⁺	E2+M1	+2.1 4	1.18×10 ⁻³ 2	$\alpha(\text{K})=0.001048$ 21; $\alpha(\text{L})=0.0001134$ 23; $\alpha(\text{M})=1.83\times10^{-5}$ 4 $\alpha(\text{N})=1.84\times10^{-6}$ 4 B(M1)(W.u.)≈0.00063; B(E2)(W.u.)≈6.9
		1474.895 10	57.7 6	0.0	0 ⁺	E2		2.89×10 ⁻⁴	$\alpha(\text{K})=0.000190$ 3; $\alpha(\text{L})=2.00\times10^{-5}$ 3; $\alpha(\text{M})=3.24\times10^{-6}$ 5 $\alpha(\text{N})=3.27\times10^{-7}$ 5; $\alpha(\text{IPF})=7.58\times10^{-5}$ 11 B(E2)(W.u.)≈0.12
1487.70	0 ⁺	711.09 7	100 5	776.526 2 ⁺	2 ⁺	[E2]		1.16×10 ⁻³	B(E2)(W.u.)=15 5 $\alpha(\text{K})=0.001032$ 15; $\alpha(\text{L})=0.0001119$ 16; $\alpha(\text{M})=1.81\times10^{-5}$ 3 $\alpha(\text{N})=1.81\times10^{-6}$ 3
1820.536	4 ⁺	1488 1044.005 10	100	0.0 0 ⁺ 776.526 2 ⁺	0 ⁺ 2 ⁺	E0 E2		4.48×10 ⁻⁴	ce(K)/(γ +ce)=0.76; ce(L)/(γ +ce)=0.07 B(E2)(W.u.)=32 12 $\alpha(\text{K})=0.000398$ 6; $\alpha(\text{L})=4.25\times10^{-5}$ 6; $\alpha(\text{M})=6.87\times10^{-6}$ 10 $\alpha(\text{N})=6.93\times10^{-7}$ 10
1956.775	(2 ⁺)	1180.209 24	100 1	776.526 2 ⁺	2 ⁺	(M1+E2)	-0.52 16	3.36×10 ⁻⁴	$\alpha(\text{K})=0.000295$ 5; $\alpha(\text{L})=3.11\times10^{-5}$ 5; $\alpha(\text{M})=5.04\times10^{-6}$ 8 $\alpha(\text{N})=5.10\times10^{-7}$ 8; $\alpha(\text{IPF})=4.58\times10^{-6}$ 16 B(M1)(W.u.)=0.007 5; B(E2)(W.u.)=1.6 14
		1956.740 21	43.4 9	0.0	0 ⁺	[E2]		4.11×10 ⁻⁴	$\alpha(\text{K})=0.0001100$ 16; $\alpha(\text{L})=1.154\times10^{-5}$ 17; $\alpha(\text{M})=1.87\times10^{-6}$ 3 $\alpha(\text{N})=1.89\times10^{-7}$ 3; $\alpha(\text{IPF})=0.000288$ 4 B(E2)(W.u.)=0.26 19
2094.019	3 ⁺	137.244 10 273.492 10	0.21 1 1.84 2	1956.775 (2 ⁺) 1820.536 4 ⁺	(2 ⁺) 4 ⁺	(M1+E2)	+0.3 1	0.0103 8	$\alpha(\text{K})=0.0092$ 7; $\alpha(\text{L})=0.00101$ 9; $\alpha(\text{M})=0.000164$ 14 $\alpha(\text{N})=1.64\times10^{-5}$ 14
		619.105 10	100 1	1474.900 2 ⁺	2 ⁺	E2+M1	+2.1 7	0.00163 7	$\alpha(\text{K})=0.00145$ 6; $\alpha(\text{L})=0.000157$ 7; $\alpha(\text{M})=2.55\times10^{-5}$ 11 $\alpha(\text{N})=2.55\times10^{-6}$ 11
		1317.485 10	61.6 6	776.526 2 ⁺	2 ⁺	E2+M1	+5.0 5	3.00×10 ⁻⁴	$\alpha(\text{K})=0.000239$ 4; $\alpha(\text{L})=2.53\times10^{-5}$ 4; $\alpha(\text{M})=4.09\times10^{-6}$ 6 $\alpha(\text{N})=4.13\times10^{-7}$ 6; $\alpha(\text{IPF})=3.14\times10^{-5}$ 5
2171.81	0 ⁺	214.8 ^a		1956.775 (2 ⁺)	(2 ⁺)	[E2]		0.0556	$\alpha(\text{K})=0.0487$ 7; $\alpha(\text{L})=0.00587$ 9; $\alpha(\text{M})=0.000949$ 14 $\alpha(\text{N})=9.12\times10^{-5}$ 13
		696.85 7	4.6 1	1474.900 2 ⁺	2 ⁺	[E2]		1.23×10 ⁻³	$\alpha(\text{K})=0.001089$ 16; $\alpha(\text{L})=0.0001183$ 17;

Adopted Levels, Gammas (continued)

$\gamma(^{82}\text{Kr})$ (continued)									Comments
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^{\ddagger@}$	$\alpha^\#$	
2171.81	0 ⁺	1395.26 7	100 5	776.526	2 ⁺	E2		2.90×10 ⁻⁴	$\alpha(\text{M})=1.91\times 10^{-5}$ 3 $\alpha(\text{N})=1.92\times 10^{-6}$ 3 B(E2)(W.u.)≈1.2 $\alpha(\text{K})=0.000212$ 3; $\alpha(\text{L})=2.24\times 10^{-5}$ 4; $\alpha(\text{M})=3.63\times 10^{-6}$ 5 $\alpha(\text{N})=3.67\times 10^{-7}$ 6; $\alpha(\text{IPF})=5.11\times 10^{-5}$ 8 ce(K)/(γ +ce)=0.3; ce(L)/(γ +ce)=0.03 $\alpha(\text{K})=0.0078$ 28; $\alpha(\text{L})=8.7\times 10^{-4}$ 33; $\alpha(\text{M})=1.41\times 10^{-4}$ 53 $\alpha(\text{N})=1.39\times 10^{-5}$ 51 $\alpha(\text{K})=0.00342$ 5; $\alpha(\text{L})=0.000379$ 6; $\alpha(\text{M})=6.14\times 10^{-5}$ 9 $\alpha(\text{N})=6.09\times 10^{-6}$ 9 B(E2)(W.u.)=19 6 $\alpha(\text{K})=0.0012$ 3; $\alpha(\text{L})=1.31\times 10^{-4}$ 36; $\alpha(\text{M})=2.12\times 10^{-5}$ 57 $\alpha(\text{N})=2.14\times 10^{-6}$ 55 B(M1)(W.u.)=0.09 5; B(E2)(W.u.)≈3 $\alpha(\text{K})=0.000494$ 7; $\alpha(\text{L})=5.29\times 10^{-5}$ 8; $\alpha(\text{M})=8.56\times 10^{-6}$ 12 $\alpha(\text{N})=8.61\times 10^{-7}$ 12 B(E2)(W.u.)=10 3 $\alpha(\text{K})=0.0001518$ 22; $\alpha(\text{L})=1.598\times 10^{-5}$ 23; $\alpha(\text{M})=2.59\times 10^{-6}$ 4 $\alpha(\text{N})=2.62\times 10^{-7}$ 4; $\alpha(\text{IPF})=0.0001472$ 21 B(E2)(W.u.)=1.2 4
2426.895	(4 ⁺)	2172 332.78 9		0.0 0 ⁺ 2094.019 3 ⁺	0 ⁺ 3 ⁺	E0 [M1+E2]		0.0088 32	
		470.07 ^a 3	1.77 14	1956.775	(2 ⁺)	[E2]		0.00386	
		606.358 10	100.0 7	1820.536	4 ⁺	(M1+E2)	+0.1 +19-4	0.0014 4	
		952.03 2	30.8 3	1474.900	2 ⁺	[E2]		5.56×10 ⁻⁴	
		1650.35 1	60.1 6	776.526	2 ⁺	(E2)		3.18×10 ⁻⁴	
2450.19	0 ⁺	975.22 7	100 4	1474.900	2 ⁺				
		1673.70 7	81 5	776.526	2 ⁺				
2480.07	2 ⁺	523.24 ^a 7	17.2 6	1956.775	(2 ⁺)				
		659.38 7	1.39 8	1820.536	4 ⁺				
		992.27 9	3.86 11	1487.70	0 ⁺				
		1703.54 7	100 6	776.526	2 ⁺	D+Q	1.03 10		
		2480.23 7	66.7 28	0.0	0 ⁺				
2547.452	(3 ⁻)	1072.99 7	100 5	1474.900	2 ⁺				
		1771.0 ^a 3	4 4	776.526	2 ⁺				
2556.184	(4 ⁺)	129.34 3	1.82 13	2426.895	(4 ⁺)	[M1+E2]		0.21 15	E_γ : not reported In 2011Kr06. $\alpha(\text{K})=0.18$ 13; $\alpha(\text{L})=0.024$ 18; $\alpha(\text{M})=0.0039$ 29 $\alpha(\text{N})=3.6\times 10^{-4}$ 27 $\alpha(\text{K})=0.001656$ 24; $\alpha(\text{L})=0.000181$ 3; $\alpha(\text{M})=2.93\times 10^{-5}$ 5 $\alpha(\text{N})=2.93\times 10^{-6}$ 5 B(E2)(W.u.)=2.3 8
		599.29 9	1.19 18	1956.775	(2 ⁺)	[E2]		0.00187	
		735.645 ^b 12	9.87 13	1820.536	4 ⁺				

Adopted Levels, Gammas (continued)

$\gamma(^{82}\text{Kr})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^{\ddagger@}$	$\alpha^\#$	Comments
2556.184	(4 ⁺)	1081.288 10	100.0 10	1474.900	2 ⁺	(E2)		4.14×10 ⁻⁴	$\alpha(\text{K})=0.000368$ 6; $\alpha(\text{L})=3.92\times 10^{-5}$ 6; $\alpha(\text{M})=6.34\times 10^{-6}$ 9 $\alpha(\text{N})=6.39\times 10^{-7}$ 9 B(E2)(W.u.)=10 3
		1779.623 13	17.27 13	776.526	2 ⁺	[E2]		3.52×10 ⁻⁴	$\alpha(\text{K})=0.0001313$ 19; $\alpha(\text{L})=1.381\times 10^{-5}$ 20; $\alpha(\text{M})=2.23\times 10^{-6}$ 4 $\alpha(\text{N})=2.26\times 10^{-7}$ 4; $\alpha(\text{IPF})=0.000205$ 3 B(E2)(W.u.)=0.14 4
2648.369	4 ⁻	92.188 10	1.00 2	2556.184	(4 ⁺)	[E1]		0.1147	B(E1)(W.u.)>0.00047 $\alpha(\text{K})=0.1017$ 15; $\alpha(\text{L})=0.01103$ 16; $\alpha(\text{M})=0.001770$ 25 $\alpha(\text{N})=0.0001734$ 25
		100.948 16	0.09 1	2547.452	(3 ⁻)	[M1+E2]		0.51 39	$\alpha(\text{K})=0.44$ 33; $\alpha(\text{L})=0.063$ 51; $\alpha(\text{M})=0.0101$ 82 $\alpha(\text{N})=9.3\times 10^{-4}$ 73
		221.478 10	3.18 4	2426.895	(4 ⁺)	(E1)		0.00870	$\alpha(\text{K})=0.00773$ 11; $\alpha(\text{L})=0.000826$ 12; $\alpha(\text{M})=0.0001332$ 19 $\alpha(\text{N})=1.329\times 10^{-5}$ 19 B(E1)(W.u.)>0.00011
		554.352 10	100.0 11	2094.019	3 ⁺	E1		7.57×10 ⁻⁴	$\alpha(\text{K})=0.000673$ 10; $\alpha(\text{L})=7.13\times 10^{-5}$ 10; $\alpha(\text{M})=1.152\times 10^{-5}$ 17 $\alpha(\text{N})=1.160\times 10^{-6}$ 17 B(E1)(W.u.)>0.00022
		827.826 10	34.68 35	1820.536	4 ⁺	E1		3.11×10 ⁻⁴	$\alpha(\text{K})=0.000277$ 4; $\alpha(\text{L})=2.91\times 10^{-5}$ 4; $\alpha(\text{M})=4.71\times 10^{-6}$ 7 $\alpha(\text{N})=4.76\times 10^{-7}$ 7 B(E1)(W.u.)>2.2×10 ⁻⁵
		1173.432 13	0.02 1	1474.900	2 ⁺	[M2]		7.31×10 ⁻⁴	$\alpha(\text{K})=0.000648$ 9; $\alpha(\text{L})=6.95\times 10^{-5}$ 10; $\alpha(\text{M})=1.127\times 10^{-5}$ 16 $\alpha(\text{N})=1.141\times 10^{-6}$ 16; $\alpha(\text{IPF})=6.34\times 10^{-7}$ 9 B(M2)(W.u.)>0.015
		1871.807 15	0.05 1	776.526	2 ⁺	[M2]		3.55×10 ⁻⁴	$\alpha(\text{K})=0.000223$ 4; $\alpha(\text{L})=2.35\times 10^{-5}$ 4; $\alpha(\text{M})=3.81\times 10^{-6}$ 6 $\alpha(\text{N})=3.87\times 10^{-7}$ 6; $\alpha(\text{IPF})=0.0001045$ 15 B(M2)(W.u.)>0.0037
2655.96	2 ⁺	699.41 13	6.2 9	1956.775	(2 ⁺)				
		1168.23 7	8.8 4	1487.70	0 ⁺				
		1181.05 7	13.4 12	1474.900	2 ⁺				
		1879.61 7	100 6	776.526	2 ⁺				
		2655.56 8	20.7 4	0.0	0 ⁺	D+Q	-0.71 21		
2676.0		1899.5 3	100	776.526	2 ⁺				
2684.45		1907.90 12	100	776.526	2 ⁺				
2797.56?		703.56 ^a 10	100 18	2094.019	3 ⁺				
		976.9 ^a 2	47 6	1820.536	4 ⁺				

Adopted Levels, Gammas (continued)

$\gamma(^{82}\text{Kr})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^{\ddagger@}$	$\alpha^\#$	Comments
2828.137	5 ⁽⁻⁾	179.80 4	0.64 6	2648.369	4 ⁻	[M1+E2]		0.066 40	$\alpha(\text{K})=0.058$ 35; $\alpha(\text{L})=0.0071$ 45; $\alpha(\text{M})=0.00114$ 72 $\alpha(\text{N})=1.10\times 10^{-4}$ 68
		271.96 5	1.41 15	2556.184	(4 ⁺)	[E1]		0.00486	$\alpha(\text{K})=0.00431$ 6; $\alpha(\text{L})=0.000460$ 7; $\alpha(\text{M})=7.43\times 10^{-5}$ 11 $\alpha(\text{N})=7.43\times 10^{-6}$ 11
		280.73 ^a 6	0.68 10	2547.452	(3 ⁻)	[E2]		0.0214	B(E1)(W.u.)= 1.6×10^{-5} 9 $\alpha(\text{K})=0.0188$ 3; $\alpha(\text{L})=0.00219$ 3; $\alpha(\text{M})=0.000354$ 5 $\alpha(\text{N})=3.45\times 10^{-5}$ 5
		401.249 13	6.60 6	2426.895	(4 ⁺)	[E1]		1.69×10^{-3}	B(E2)(W.u.)=7 4 $\alpha(\text{K})=0.001505$ 21; $\alpha(\text{L})=0.0001600$ 23; $\alpha(\text{M})=2.58\times 10^{-5}$ 4 $\alpha(\text{N})=2.60\times 10^{-6}$ 4
		1007.589 10	100.0 13	1820.536	4 ⁺	(E1+M2)	+0.00 3	2.10×10^{-4}	B(E1)(W.u.)= 2.4×10^{-5} 12 $\alpha(\text{K})=0.000187$ 3; $\alpha(\text{L})=1.97\times 10^{-5}$ 3; $\alpha(\text{M})=3.18\times 10^{-6}$ 5 $\alpha(\text{N})=3.22\times 10^{-7}$ 5 B(E1)(W.u.)= 2.3×10^{-5} 12
2849.75	(4 ⁺)	755.76 10	100 5	2094.019	3 ⁺				
		1374.80 20	30 8	1474.900	2 ⁺				
		2073.0 3	7.6 22	776.526	2 ⁺				
2919.73	(6 ⁺)	1099.9 ^a 2	100	1820.536	4 ⁺	[E2]		3.98×10^{-4}	$\alpha(\text{K})=0.000354$ 5; $\alpha(\text{L})=3.77\times 10^{-5}$ 6; $\alpha(\text{M})=6.10\times 10^{-6}$ 9 $\alpha(\text{N})=6.15\times 10^{-7}$ 9 B(E2)(W.u.)= 5.5 19
2944.52	2 ⁺	396.93 20	1.11 19	2547.452	(3 ⁻)				
		850.37 7	0.99 8	2094.019	3 ⁺				
		987.60 21	1.18 19	1956.775	(2 ⁺)				
		1469.64 9	6.1 4	1474.900	2 ⁺				
		2168.06 7	100 5	776.526	2 ⁺	D+Q	<0.06		
		2944.61 12	13.7 7	0.0	0 ⁺				
2964.82		2188.26 16	100	776.526	2 ⁺				
2993.43		2217.7 3	59 24	776.526	2 ⁺				
		2992.97 21	100 12	0.0	0 ⁺				
3011.21	(5 ⁻)	183.27 10	100 2	2828.137	5 ⁽⁻⁾	(M1)		0.0254	$\alpha(\text{K})=0.0225$ 4; $\alpha(\text{L})=0.00248$ 4; $\alpha(\text{M})=0.000402$ 6 $\alpha(\text{N})=4.04\times 10^{-5}$ 6 B(M1)(W.u.)=0.7 4
		455.28 10	60 4	2556.184	(4 ⁺)	[E1]		1.23×10^{-3}	$\alpha(\text{K})=0.001090$ 16; $\alpha(\text{L})=0.0001157$ 17; $\alpha(\text{M})=1.87\times 10^{-5}$ 3 $\alpha(\text{N})=1.88\times 10^{-6}$ 3
		583.80 10	63 2	2426.895	(4 ⁺)	[E1]		6.70×10^{-4}	B(E1)(W.u.)=0.00048 24 $\alpha(\text{K})=0.000596$ 9; $\alpha(\text{L})=6.31\times 10^{-5}$ 9; $\alpha(\text{M})=1.019\times 10^{-5}$ 15 $\alpha(\text{N})=1.027\times 10^{-6}$ 15 B(E1)(W.u.)=0.00024 12

Adopted Levels, Gammas (continued)

$\gamma(^{82}\text{Kr})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\alpha^\#$	Comments	
3011.21	(5) ⁻	1190.81 10	13.5 8	1820.536	4 ⁺	[E1]	1.94×10 ⁻⁴	$\alpha(\text{K})=0.0001374$ 20; $\alpha(\text{L})=1.440\times 10^{-5}$ 21; $\alpha(\text{M})=2.33\times 10^{-6}$ 4 $\alpha(\text{N})=2.36\times 10^{-7}$ 4; $\alpha(\text{IPF})=3.98\times 10^{-5}$ 6 B(E1)(W.u.)=6.E-6 3	
3037.85	(6 ⁻)	209.70 20 389.4 1	5.7 4 100 1	2828.137 5 ⁽⁻⁾ 2648.369 4 ⁻		(E2)	0.00705	$\alpha(\text{K})=0.00622$ 9; $\alpha(\text{L})=0.000701$ 10; $\alpha(\text{M})=0.0001134$ 16 $\alpha(\text{N})=1.119\times 10^{-5}$ 16 B(E2)(W.u.)=4.8 6	
3131.34		1656.47 22 2354.73 24	60 14 100 20	1474.900 2 ⁺ 776.526 2 ⁺					
3167.57	(6 ⁺)	247.80 20 1347.00 10	8.8 15 100 6	2919.73 (6 ⁺) 1820.536 4 ⁺		(E2)	2.96×10 ⁻⁴	B(E2)(W.u.)=7.3 21 $\alpha(\text{K})=0.000228$ 4; $\alpha(\text{L})=2.42\times 10^{-5}$ 4; $\alpha(\text{M})=3.91\times 10^{-6}$ 6 $\alpha(\text{N})=3.95\times 10^{-7}$ 6; $\alpha(\text{IPF})=3.87\times 10^{-5}$ 6	
3186.93		1092.90 20	100	2094.019 3 ⁺					
3187.15	(0) ⁺	1230.35 7 1712.24 7 2410.65 17	8.1 4 7.9 6 100 5	1956.775 (2 ⁺) 1474.900 2 ⁺ 776.526 2 ⁺		Q			
3207.1		2430.5 3	100	776.526 2 ⁺					
3217.1		1742.23 30	100	1474.900 2 ⁺					
3234.07	(0 ⁺)	754.03 16 1276.93 19 2457.69 15	100 12 96 16 100 10	2480.07 2 ⁺ 1956.775 (2 ⁺) 776.526 2 ⁺		Q			
3255.90	(6 ⁺)	88.3 ^a 2 336.2 2 1435.1 2	0.48 12 27.5 25 100 20	3167.57 (6 ⁺) 2919.73 (6 ⁺) 1820.536 4 ⁺		[E2]	2.88×10 ⁻⁴	B(E2)(W.u.)=10 4 $\alpha(\text{K})=0.000200$ 3; $\alpha(\text{L})=2.12\times 10^{-5}$ 3; $\alpha(\text{M})=3.42\times 10^{-6}$ 5 $\alpha(\text{N})=3.46\times 10^{-7}$ 5; $\alpha(\text{IPF})=6.27\times 10^{-5}$ 9	
3285.81		805.76 7 1113.71 15 1191.61 18 2509.31 7	25.2 23 4.1 12 28.1 18 100 5	2480.07 2 ⁺ 2171.81 0 ⁺ 2094.019 3 ⁺ 776.526 2 ⁺					
3348.49	(6 ⁻)	310.6 1 337.4 2 428.9 2	30.3 16 88 6 34 3	3037.85 (6 ⁻) 3011.21 (5) ⁻ 2919.73 (6 ⁺)		[E1]	1.43×10 ⁻³	$\alpha(\text{K})=0.001268$ 18; $\alpha(\text{L})=0.0001347$ 19; $\alpha(\text{M})=2.18\times 10^{-5}$ 3 $\alpha(\text{N})=2.19\times 10^{-6}$ 3 B(E1)(W.u.)=1.4×10 ⁻⁵ 5	
		520.3 1 700.0 ^a 3	100 6 19 6	2828.137 5 ⁽⁻⁾ 2648.369 4 ⁻					
3355.99	1,2 ⁽⁺⁾	1399.31 23 2579.18 11 3356.09 10	16 3 100 8 30.2 16	1956.775 (2 ⁺) 776.526 2 ⁺ 0.0 0 ⁺					
3392.2?		836.0 ^a 7	100	2556.184 (4 ⁺)					

Adopted Levels, Gammas (continued)

$\gamma(^{82}\text{Kr})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\alpha^\#$	Comments
3438.15		1963.21 20	44 11	1474.900	2 ⁺			
		2661.58 14	100 9	776.526	2 ⁺			
3457.21	1,2 ⁽⁺⁾	2681.5 4	100 21	776.526	2 ⁺			
		3457.03 14	47 3	0.0	0 ⁺			
3461.66	(8 ⁺)	542.0 ^{&} 10	100	2919.73	(6 ⁺)	(E2)	0.00251	$\alpha(\text{K})=0.00222$ 4; $\alpha(\text{L})=0.000244$ 4; $\alpha(\text{M})=3.95\times 10^{-5}$ 6 $\alpha(\text{N})=3.93\times 10^{-6}$ 6 $\text{B}(\text{E}2)(\text{W.u.})=5.9$ 8
3496.60	(7 ⁻)	458.6 2	26.4 19	3037.85	(6 ⁻)			
		576.9 2	23 6	2919.73	(6 ⁺)	[E1]	6.89×10^{-4}	$\text{B}(\text{E}1)(\text{W.u.})=2.1\times 10^{-5}$ +33-13 $\alpha(\text{K})=0.000613$ 9; $\alpha(\text{L})=6.49\times 10^{-5}$ 9; $\alpha(\text{M})=1.048\times 10^{-5}$ 15 $\alpha(\text{N})=1.056\times 10^{-6}$ 15
		668.4 2	100 8	2828.137	5 ⁽⁻⁾	(E2)	1.38×10^{-3}	$\text{B}(\text{E}2)(\text{W.u.})=10$ +11-5 $\alpha(\text{K})=0.001220$ 18; $\alpha(\text{L})=0.0001327$ 19; $\alpha(\text{M})=2.15\times 10^{-5}$ 3 $\alpha(\text{N})=2.15\times 10^{-6}$ 3
3565.13	(0) ⁺	908.85 22	21 5	2655.96	2 ⁺			
		1085.08 11	16.5 21	2480.07	2 ⁺			
		1608.21 7	100 5	1956.775	(2 ⁺)	Q		
		2090.00 29	23 4	1474.900	2 ⁺			
		2788.81 9	37 3	776.526	2 ⁺			
3595.14	(7 ⁻)	98.5 1	28.9 26	3496.60	(7 ⁻)			
		246.5 2	15.0 13	3348.49	(6 ⁻)			
		427.5 2	66 5	3167.57	(6 ⁺)			
		557.2 ^a 3	5.3 26	3037.85	(6 ⁻)			
		584.0 2	84 8	3011.21	(5) ⁻			
		675.5 1	100 8	2919.73	(6 ⁺)			
		767.1 ^a 3	16 5	2828.137	5 ⁽⁻⁾			
3655.56	4 ⁽⁺⁾ ,5,6 ⁽⁺⁾	735.64 ^{&} 10	100 16	2919.73	(6 ⁺)			
		1228.9 ^a 4	19 8	2426.895	(4 ⁺)			
		1835.2 1	37.8 27	1820.536	4 ⁺			
3709.37	(7 ⁺)	247.8 2	19 6	3461.66	(8 ⁺)			
		453.3 2	94 6	3255.90	(6 ⁺)	(M1)	0.00269	$\alpha(\text{K})=0.00239$ 4; $\alpha(\text{L})=0.000257$ 4; $\alpha(\text{M})=4.16\times 10^{-5}$ 6 $\alpha(\text{N})=4.20\times 10^{-6}$ 6 $\text{B}(\text{M}1)(\text{W.u.})>0.13$
3716.14	(2 ⁺)	542.0 ^{&} 10	100 19	3167.57	(6 ⁺)			
		1168.40 8	11.8 7	2547.452	(3 ⁻)			
		1621.99 13	7.4 7	2094.019	3 ⁺			
		1759.25 25	9.6 15	1956.775	(2 ⁺)			
3742.76?		2940.09 10	100 4	776.526	2 ⁺	Q		
		1195.72 16	5.6 6	2547.452	(3 ⁻)			
		1570.88 15	7.8 11	2171.81	0 ⁺			
		1648.76 23	12.2 17	2094.019	3 ⁺			
		1785.85 7	100 6	1956.775	(2 ⁺)			

Adopted Levels, Gammas (continued)

$\gamma(^{82}\text{Kr})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\alpha^\#$	Comments	
3742.76?		2255.02 31	14.4 17	1487.70	0 ⁺				
		2268.24 21	23 4	1474.900	2 ⁺				
		2966.17 14	23.3 22	776.526	2 ⁺				
3815.25	1,2 ⁽⁺⁾	3038.3 ^a 4	25 6	776.526	2 ⁺				
		3815.15 7	100 3	0.0	0 ⁺				
3836.13	1,2	1741.73 18	74 6	2094.019	3 ⁺				
		2360.96 21	79 13	1474.900	2 ⁺				
		3059.47 12	100 8	776.526	2 ⁺				
		3836.18 8	26.6 15	0.0	0 ⁺				
3846.14		497.8 3	15 5	3348.49	(6 ⁻)				
		1017.9 3	100 25	2828.137	5 ⁽⁻⁾				
3881.00	1,2 ⁽⁺⁾	1400.82 10	100 13	2480.07	2 ⁺				
		1786.7 3	44 5	2094.019	3 ⁺				
		2405.95 13	23 5	1474.900	2 ⁺				
		3104.60 23	36 5	776.526	2 ⁺				
		3881.47 19	10.5 13	0.0	0 ⁺				
3910.85	1,2 ⁽⁺⁾	3910.75 12	100	0.0	0 ⁺				
3920.01		3143.42 24	100	776.526	2 ⁺				
3951.5	4,5,6 ⁽⁺⁾	1395.4 5	100 67	2556.184	(4 ⁺)				
		2130.8 4	77 23	1820.536	4 ⁺				
3958.05	1,2 ⁽⁺⁾	3957.95 14	100	0.0	0 ⁺				
3997.91	4,5,6 ⁽⁺⁾	987.1 5	21 16	3011.21	(5) ⁻				
		1441.70 10	100 16	2556.184	(4 ⁺)				
4016.28	(8 ⁺)	554.0 10	17 3	3461.66	(8 ⁺)				
		760.30 20	7 2	3255.90	(6 ⁺)	[E2]	9.75×10 ⁻⁴	B(E2)(W.u.)=6 +8-4 $\alpha(\text{K})=0.000865$ 13; $\alpha(\text{L})=9.35\times 10^{-5}$ 14; $\alpha(\text{M})=1.512\times 10^{-5}$ 22 $\alpha(\text{N})=1.517\times 10^{-6}$ 22	
		848.6 3	8.3 4	3167.57	(6 ⁺)	[E2]	7.37×10 ⁻⁴	$\alpha(\text{K})=0.000654$ 10; $\alpha(\text{L})=7.03\times 10^{-5}$ 10; $\alpha(\text{M})=1.138\times 10^{-5}$ 16 $\alpha(\text{N})=1.143\times 10^{-6}$ 16 B(E2)(W.u.)=3.8 +40-22	
		1096.6 2	100 15	2919.73	(6 ⁺)	(E2)	4.01×10 ⁻⁴	B(E2)(W.u.)=13 +10-7 $\alpha(\text{K})=0.000356$ 5; $\alpha(\text{L})=3.79\times 10^{-5}$ 6; $\alpha(\text{M})=6.14\times 10^{-6}$ 9 $\alpha(\text{N})=6.19\times 10^{-7}$ 9	
4033.80		187.7 2	80 20	3846.14					
		685.3 1	100 20	3348.49	(6 ⁻)				
4063.50	4,5,6 ⁽⁺⁾	1506.8 5	17 8	2556.184	(4 ⁺)				
		2242.95 10	100 8	1820.536	4 ⁺				
4068.05	4,5 ⁽⁺⁾	1218.0 ^a 10	38 31	2849.75	(4 ⁺)				
		1641.3 4	23 8	2426.895	(4 ⁺)				
		1974.00 10	100 8	2094.019	3 ⁺				
		2247.47 13	72 6	1820.536	4 ⁺				
4125.13	(8 ⁺)	108.8 1	61 6	4016.28	(8 ⁺)				

Adopted Levels, Gammas (continued)

$\gamma(^{82}\text{Kr})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\alpha^\#$	Comments
4125.13	(8 ⁺)	415.7 2	56 6	3709.37	(7 ⁺)	(M1)	0.00330	B(M1)(W.u.)=0.010 4 $\alpha(\text{K})=0.00293$ 5; $\alpha(\text{L})=0.000315$ 5; $\alpha(\text{M})=5.11\times 10^{-5}$ 8 $\alpha(\text{N})=5.16\times 10^{-6}$ 8
		663.8 4 1205.6 2	72 6 100 11	3461.66 2919.73	(8 ⁺) (6 ⁺)	(E2)	3.34×10^{-4}	B(E2)(W.u.)=0.61 22 $\alpha(\text{K})=0.000289$ 4; $\alpha(\text{L})=3.07\times 10^{-5}$ 5; $\alpha(\text{M})=4.96\times 10^{-6}$ 7 $\alpha(\text{N})=5.01\times 10^{-7}$ 7; $\alpha(\text{IPF})=9.06\times 10^{-6}$ 13
4135.6? 4170.94	(8 ⁻)	2315.0 ^a 5 575.8 3 822.40 20	100 28 7 100 4	1820.536 4 ⁺ 3595.14 (7 ⁻) 3348.49 (6 ⁻)		[E2]	7.97×10^{-4}	B(E2)(W.u.)=23 +14-12 $\alpha(\text{K})=0.000707$ 10; $\alpha(\text{L})=7.62\times 10^{-5}$ 11; $\alpha(\text{M})=1.232\times 10^{-5}$ 18 $\alpha(\text{N})=1.238\times 10^{-6}$ 18
4343.1		172.00 ^a 20 1305.2 3	14 4 100 22	4170.94 (8 ⁻) 3037.85 (6 ⁻)				
4437.6		312.6 ^a 3 421.3 ^a 3	3.8 19 3.8 19	4125.13 (8 ⁺) 4016.28 (8 ⁺)				
4609.50	(10 ⁺)	1517.9 3 1147.8 1	100 14 100	2919.73 (6 ⁺) 3461.66 (8 ⁺)		(E2)	3.65×10^{-4}	$\alpha(\text{K})=0.000322$ 5; $\alpha(\text{L})=3.42\times 10^{-5}$ 5; $\alpha(\text{M})=5.53\times 10^{-6}$ 8 $\alpha(\text{N})=5.58\times 10^{-7}$ 8; $\alpha(\text{IPF})=2.77\times 10^{-6}$ 4 B(E2)(W.u.)=11 +3-7
4667.91	(9 ⁻)	496.9 2 1072.8 2	22 5 100 20	4170.94 (8 ⁻) 3595.14 (7 ⁻)		[E2]	4.21×10^{-4}	B(E2)(W.u.)=14 6 $\alpha(\text{K})=0.000374$ 6; $\alpha(\text{L})=3.99\times 10^{-5}$ 6; $\alpha(\text{M})=6.45\times 10^{-6}$ 9 $\alpha(\text{N})=6.51\times 10^{-7}$ 10
4746.81	(9 ⁻)	1250.2 2	100	3496.60 (7 ⁻)		(E2)	3.18×10^{-4}	B(E2)(W.u.)=14.6 25 $\alpha(\text{K})=0.000267$ 4; $\alpha(\text{L})=2.83\times 10^{-5}$ 4; $\alpha(\text{M})=4.58\times 10^{-6}$ 7 $\alpha(\text{N})=4.63\times 10^{-7}$ 7; $\alpha(\text{IPF})=1.693\times 10^{-5}$ 24
4822.15	(10 ⁺)	212.5 2 805.9 1	4.0 4 100.0 20	4609.50 (10 ⁺) 4016.28 (8 ⁺)		(E2)	8.39×10^{-4}	B(E2)(W.u.)=63 11 $\alpha(\text{K})=0.000744$ 11; $\alpha(\text{L})=8.03\times 10^{-5}$ 12; $\alpha(\text{M})=1.298\times 10^{-5}$ 19 $\alpha(\text{N})=1.304\times 10^{-6}$ 19
4896.7? 5011.88	(8 ⁺ ,9,10 ⁺)	1435 ^a 189.7 2 886.8 3	100 29 14 100 29	3461.66 (8 ⁺) 4822.15 (10 ⁺) 4125.13 (8 ⁺)				
5325.41	(10 ⁻)	657.4 3 1154.5 2	26 9 100 9	4667.91 (9 ⁻) 4170.94 (8 ⁻)				
5702.8 5992.5		956 1383.0 3	100 100	4746.81 (9 ⁻) 4609.50 (10 ⁺)				
6009.5 6011.7		1400.0 3 1189.5 3	100 100	4609.50 (10 ⁺) 4822.15 (10 ⁺)				

Adopted Levels, Gammas (continued)

$\gamma(^{82}\text{Kr})$ (continued)

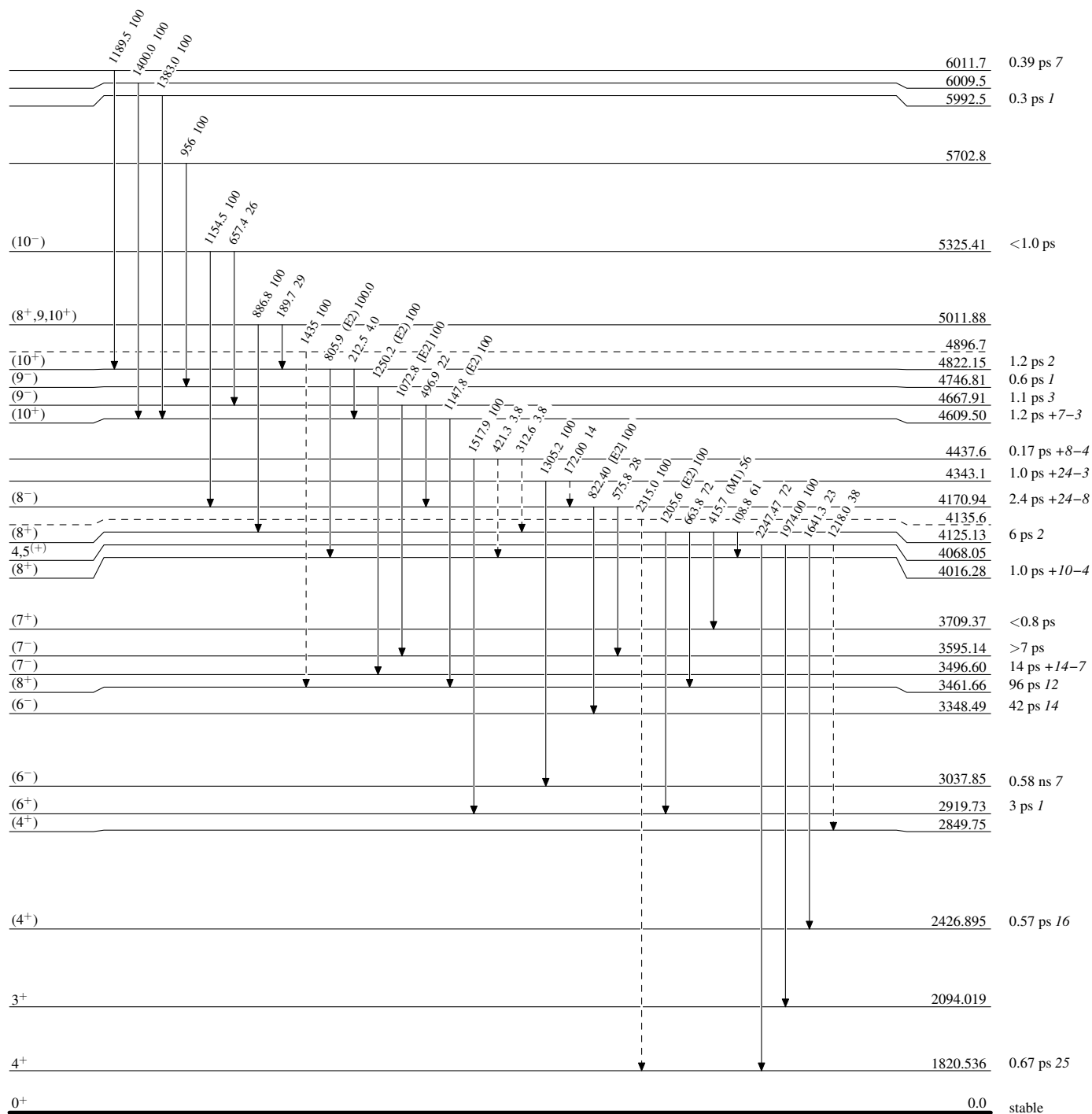
[†] From decay data and $(\alpha,2n\gamma)$.
[‡] From ce, $\gamma\gamma(\theta)$ in β^- decay (35.282 h) (1994Go12), $\gamma\gamma(\theta)$ in ^{82}Rb ε decay (1.2575 min) (2016Ni03), and $\gamma(\theta)$ in $(\alpha,2n\gamma)$. Quadrupole transitions and transitions with strong quadrupole admixtures are assumed to be E2.
[#] Additional information 1.
[@] If No value given it was assumed $\delta=1.00$ for E2/M1, $\delta=1.00$ for E3/M2 and $\delta=0.10$ for the other multipolarities.
[&] Multiply placed.
^a Placement of transition in the level scheme is uncertain.

Adopted Levels, Gammas

Legend

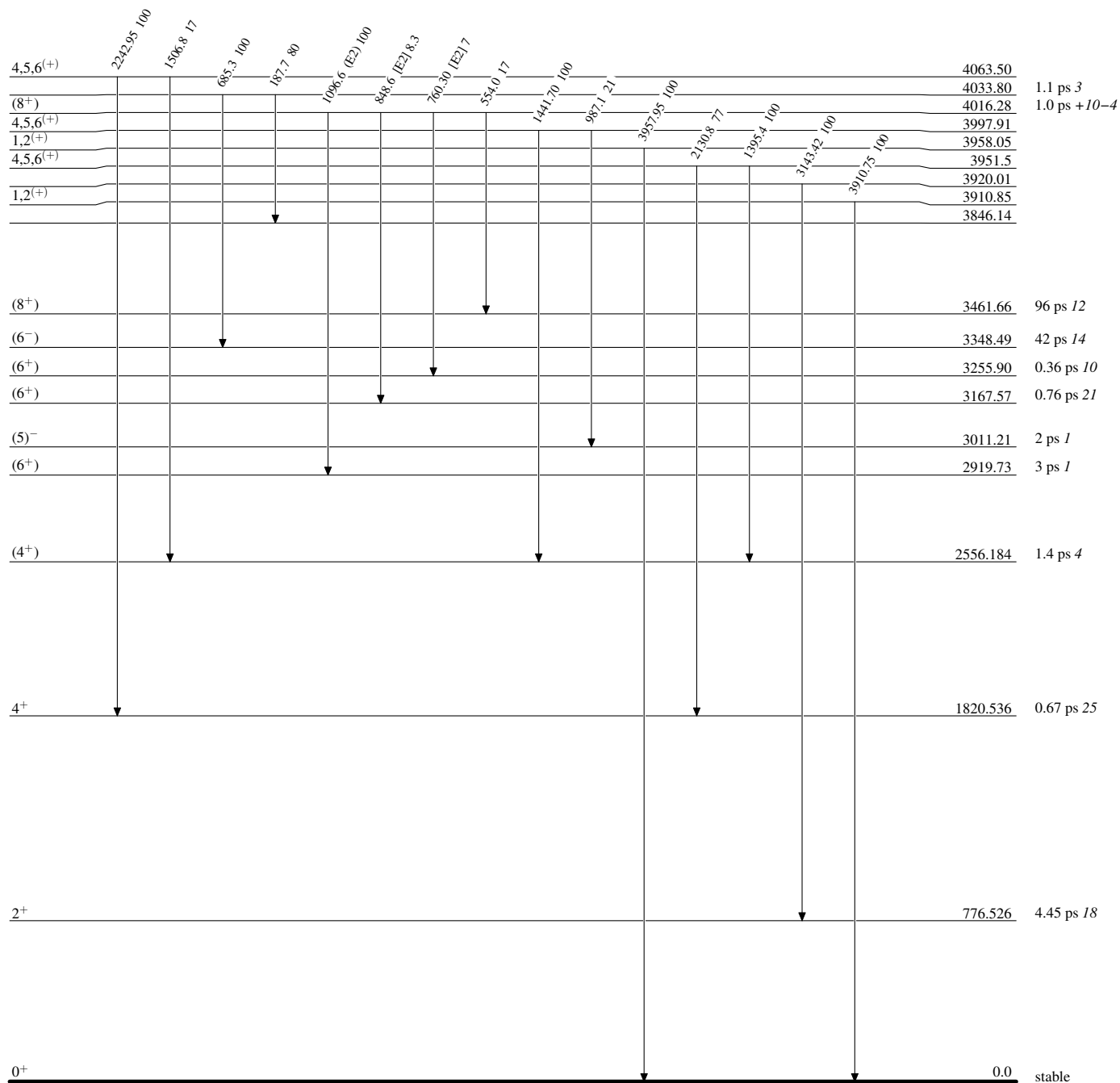
Level Scheme

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain)

Adopted Levels, GammasLevel Scheme (continued)

Intensities: Relative photon branching from each level

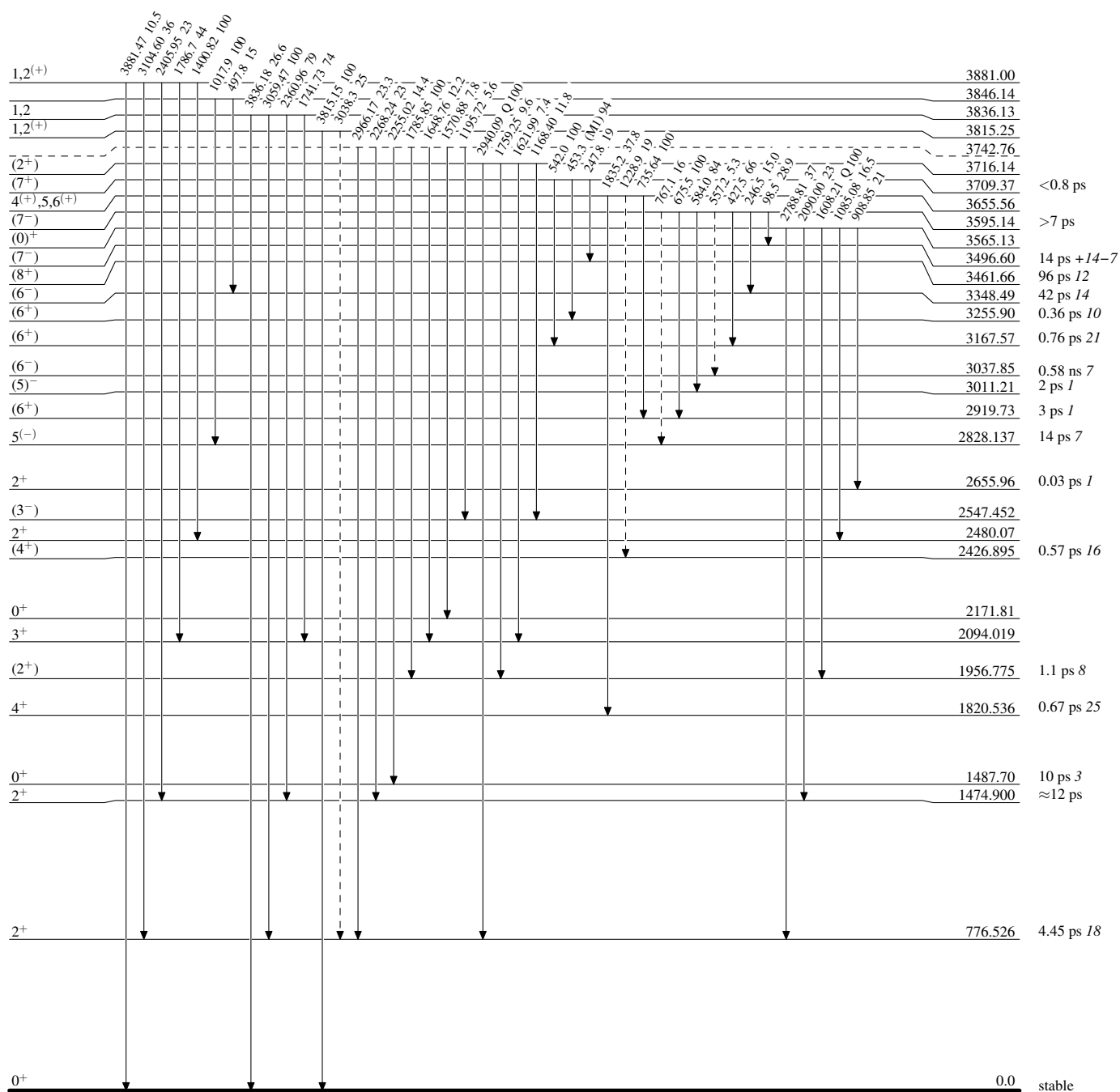


Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

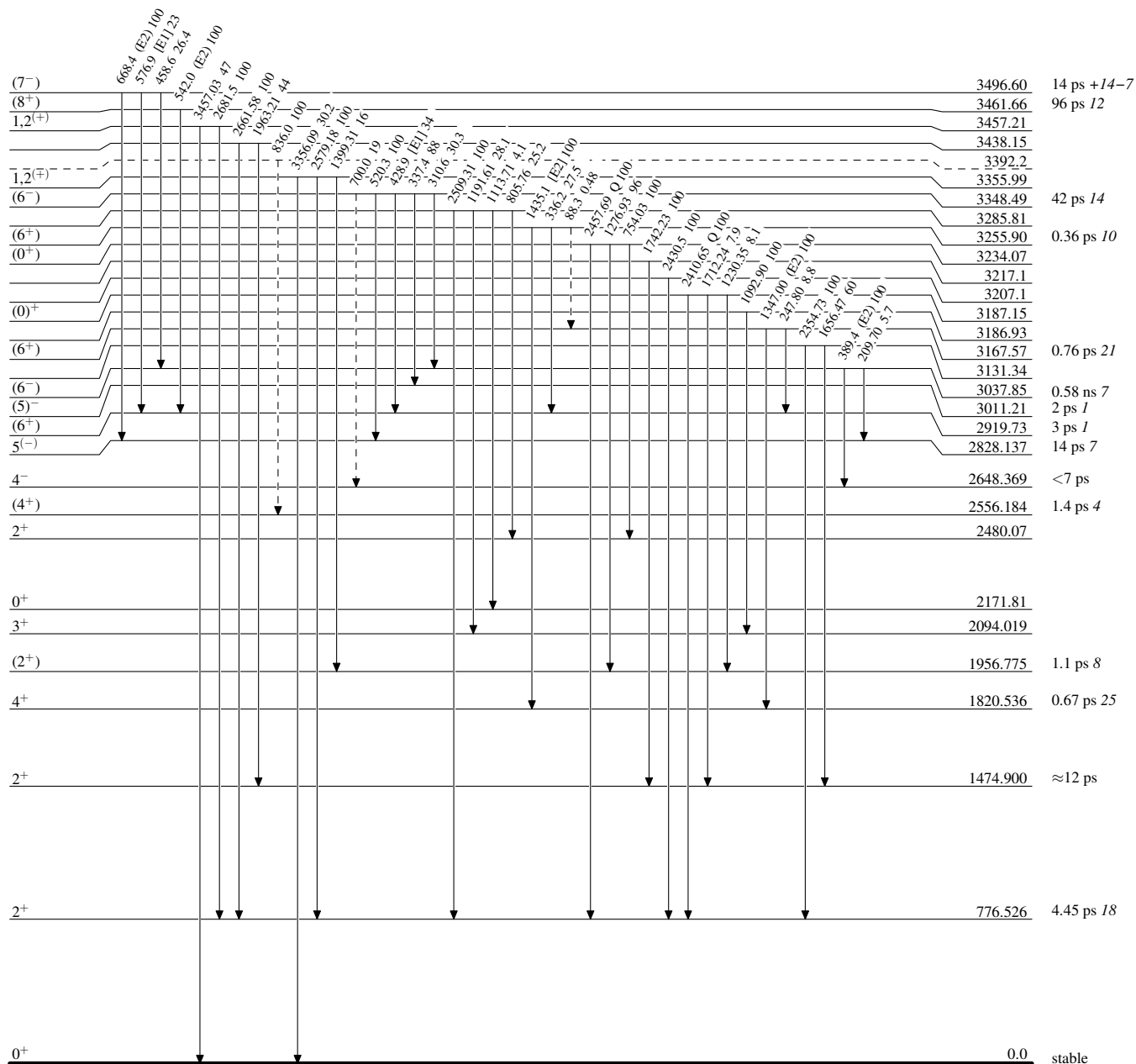
-----► γ Decay (Uncertain)

Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain)


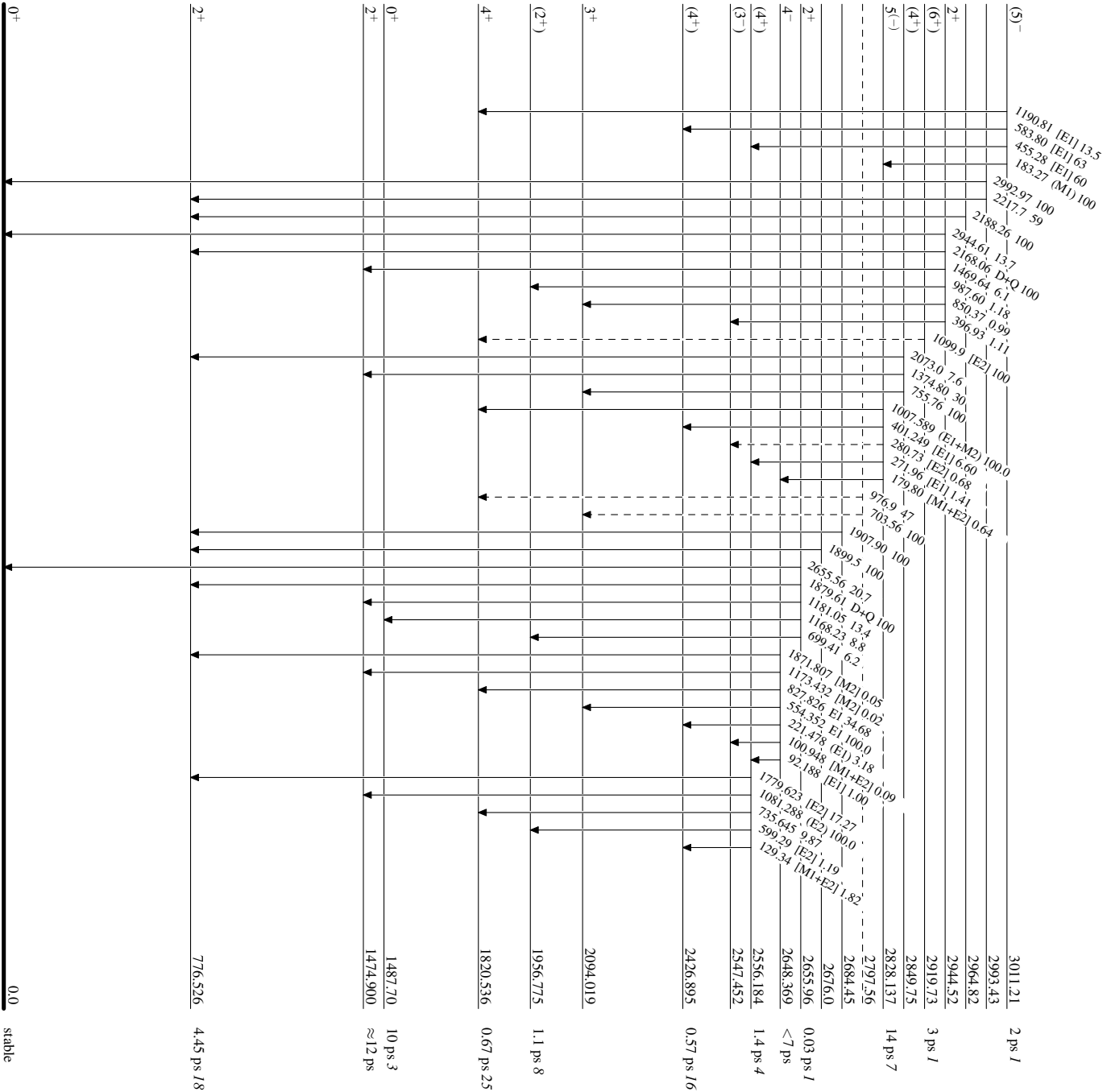
Adopted Levels, Gammas

Legend

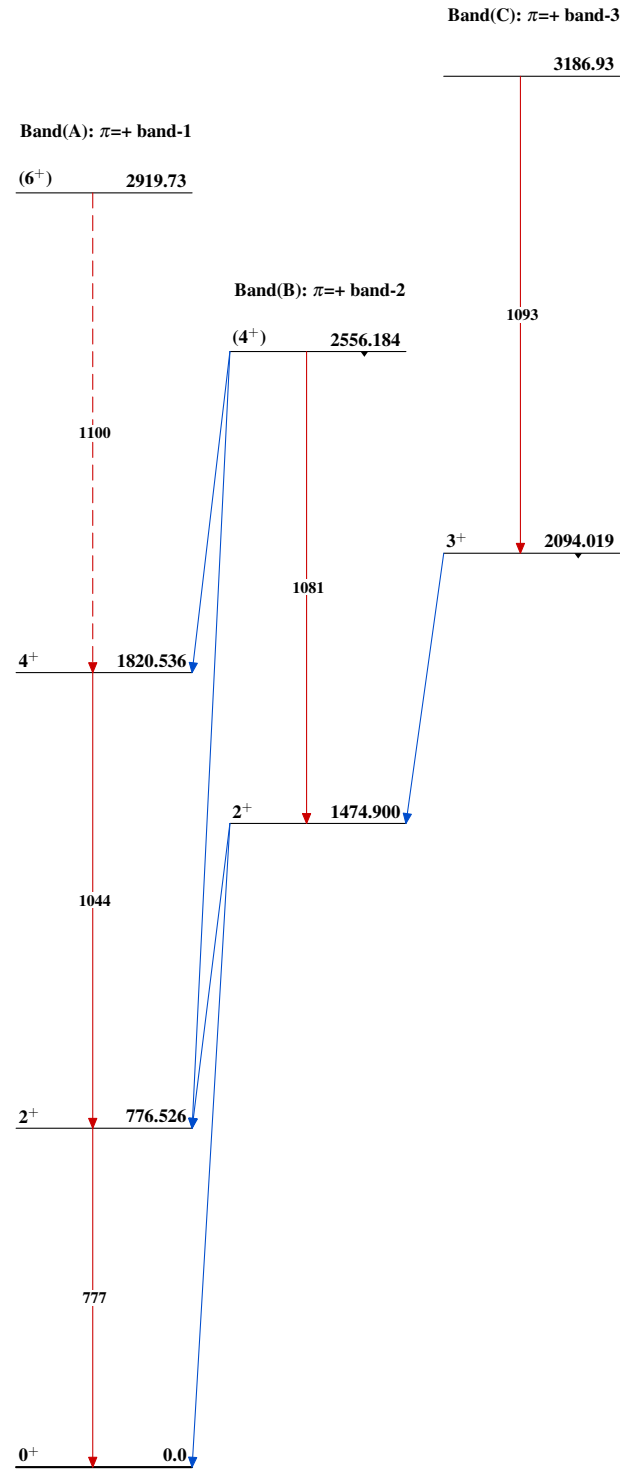
Level Scheme (continued)

Intensities: Relative photon branching from each level

-----▶ γ Decay (Uncertain)



Adopted Levels, Gammas



$^{82}_{36}\text{Kr}_{46}$