

Adopted Levels, Gammas

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

$Q(\beta^-) = -921.5$ 9; $S(n) = 9427.24$ 5; $S(p) = 12041.2$ 7; $Q(\alpha) = -7492.3$ 21 [2021Wa16](#)

$Q(2\beta^-) = 2039.06$ 1, $S(2n) = 15933.08$ 2, $S(2p) = 22034.1$ 25 ([2021Wa16](#)).

^{76}Ge $2\beta^-$ decay (to ^{76}Se) by $0\nu\beta\beta$ or $2\nu\beta\beta$ decay modes:

^{76}Ge $2\beta^-$ decay (experimental): [2013Ag11](#) (also [2013Ag02](#)), [2013Ac01](#), [2008Me06](#), [2008Ra09](#), [2006Gr17](#), [2005Ba60](#), [2004K103](#) (also [2005K102](#), [2003Do12](#), [2002K112](#), [2001K111](#)), [2003Aa01](#) (also [2000Aa01](#), [1999Aa01](#), [1999Aa02](#), [1996Aa02](#)), [2001K112](#) (also [2002K110](#), [2001Va29](#), [2000Va23](#)), [2000Go25](#), [1999Bb30](#), [1997Ba70](#), [1997Gu13](#), [1996He31](#), [1995Ba44](#), [1995Ba84](#) (also [1994Ba15](#)), [1994Ma70](#), [1993Br22](#), [1993Be14](#), [1992Re03](#) (also [1991Tr07](#), [1987Fi05](#), [1984Fo06](#)), [1992Be20](#) (also [1992Ba25](#)), [1991Mo28](#) (also [1991Mo27](#), [1991Mo23](#), [1988Mo35](#), [1985Hu01](#), [1983Le27](#)), [1991Ca34](#) (also [1987Ca21](#), [1986Ca07](#)), [1991Av04](#) (also [1991Av01](#), [1990Mi23](#), [1987Av05](#), [1987Av01](#), [1986Av03](#), [1985Av02](#), [1983Av01](#), [1979Av01](#), [1978Pi07](#)), [1991Hy01](#) (also [1993Hy02](#), [1984El01](#)), [1990Bu15](#), [1990Va18](#), [1988Ok01](#) (also [1987Ej01](#), [1986Ka33](#), [1986Ej01](#)), [1986Zd01](#) (also [1985Zd01](#)), [1984Si08](#), [1984Fi16](#) (also [1984Be48](#), [1983Be65](#), [1982Be20](#), [1973Fi01](#), [1970Fi09](#), [1967Fi14](#)), [1952Fr23](#).

Additional information 1.

$^{76}\text{Ge}(e,e)$, $E = 225$ MeV: [1990Kh03](#).

$^{76}\text{Ge}(\gamma, \alpha)$ $E = 18$ - 25 MeV: [1990An13](#), measured emission of α particles in GDR region.

Giant dipole resonances in (γ, xn) : [1976Ca06](#).

Mass measurement: [2010Mo03](#), [2008Ra09](#), [2001Do08](#), [2001Fr25](#), [1977De20](#), [197](#) [1964Ba03](#), [1963Ri07](#).

Measurement of mass difference (^{76}Ge - ^{76}Se): [1991Hy01](#) (also [1993Hy02](#), [1985El01](#), [1984El01](#), [1984ElZY](#)).

 ^{76}Ge LevelsCross Reference (XREF) Flags

A	^{76}Ga β^- decay (30.5 s)	G	$^{76}\text{Ge}(n, n'\gamma)$	M	$^{80}\text{Se}(d, ^6\text{Li})$
B	^{76}As ε decay (26.254 h)	H	$^{76}\text{Ge}(p, p')$, (pol p, p')	N	$^{192}\text{Os}(^{82}\text{Se}, X\gamma)$
C	$^{74}\text{Ge}(t, p)$	I	$^{76}\text{Ge}(\text{pol } d, d')$	O	$\text{Pb}(^{76}\text{Ge}, ^{76}\text{Ge}'\gamma)$: inelastic
D	$^{74}\text{Ge}(^{18}\text{O}, ^{16}\text{O})$	J	$^{76}\text{Ge}(\alpha, \alpha')$	P	$^{238}\text{U}(^{76}\text{Ge}, ^{76}\text{Ge}'\gamma)$
E	$^{76}\text{Ge}(\gamma, \gamma')$	K	$^{76}\text{Ge}(^{16}\text{O}, ^{16}\text{O}'), (^{18}\text{O}, ^{18}\text{O}')$		
F	$^{76}\text{Ge}(n, n')$	L	Coulomb excitation		

E(level) [†]	J ^π [‡]	T _{1/2} or Γ [#]	XREF	Comments
0.0 ^b	0 ⁺	1.926×10 ²¹ y ⁹⁴	ABCDEFGHIJKLMN OP	$2\beta^- = 100$ XREF: B(?). RMS charge radius ($\langle r^2 \rangle$) ^{1/2} = 4.0811 fm ¹² (2013An02 evaluation). Spin 0 is consistent with microwave absorption measurement (1949To09). T _{1/2} : for $2\nu\beta\beta$ decay, from GERDA collaboration (2015Ag06 , see also 2015Ag10 , 2015Ag01 , 2013Ag02). Others: 1.5×10 ²¹ y ¹ (as recommended in evaluation by 2010Ba07 and 2011Ba28 ; see values and references therein for input data), 1.43×10 ²¹ y ⁵³ in $\beta\beta$ decay database at NNDC-BNL, 1.88×10 ²¹ y ⁸ in 2021Ko07 ; >7.5×10 ²³ y (2021Ar01); >2.022×10 ²¹ y (2023Ag05). T _{1/2} for $0\nu\beta\beta$ decay mode: >8.3×10 ²⁵ y (2023Ar02); >5.62×10 ²² y (2022Da13); >9.0×10 ²⁵ y (2020Da08); >1.8×10 ²⁶ y (2020Ag05); >4.8×10 ²⁵ y (2019Al24); >1.9×10 ²⁵ y (2018Aa02); >8.0×10 ²⁵ y (2018Ag03 , 2017Ag04); >2.1×10 ²⁵ y (2013Ag11 , GERDA) at 90% confidence level, authors give T _{1/2} > 3.0×10 ²⁵ y by combining results from measurements by 2001K111 and 2002Aa01 . 2012Zu07 compilation lists T _{1/2} > 1.9×10 ²⁵ or 2.23×10 ²⁵ +44-31, both at 90% confidence level. First value is also quoted in article

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Adopted Levels, Gammas (continued) ^{76}Ge Levels (continued)

<u>E(level)[†]</u>	<u>J^π_i</u>	<u>T_{1/2} or Γ[#]</u>	<u>XREF</u>	<u>Comments</u>
				by 2013Ac01 . The source reference for the second value needs to be confirmed.
				T _{1/2} for one Majoron emission 0νββ decay mode, measured
				T _{1/2} >4.2×10 ²³ y (2015He19 , GERDA collaboration).
				See also 2011Ba28 for a review of experimental half-life measurements for different 2β decay modes. Consult NSR database at www.nndc.bnl.gov for an extensive list of experimental and theoretical articles on 2β decay of ^{76}Ge .
				Additional information 2 .
				2009Ka06 : deduced occupancy of valence neutron and proton orbitals from single-particle transfer reaction studies using ^{76}Ge target.
562.917 ^b 23	2 ⁺	18.14 ps 13	ABCDEFGHIJKLMN	μ=+0.53 8 (2013Gu23,2020StZV) Q=-0.19 6 (2001To13,2021StZZ) XREF: B(?). J ^π : L(t,p)=2 from 0 ⁺ . μ: transient-field technique in Coulomb excitation (2019Mc05), measured g ^{76Ge} /g ^{74Ge} =0.88 5 for the first 2 ⁺ states. Other: +0.64 2 (transient-field technique in Coulomb excitation, 2013Gu23); +0.838 46 from γ(θ,H) in Coul. ex. (1984Pa20), +0.67 8 (γ(θ,H) in Coul. ex., 1987La20); +0.56 12 (IMPAC, 1969He11,1974Hu01,1977Fa07). Weighted average (NRM method) of all the four values is 0.67 5. Q: reorientation effect in Coul. ex. (2001To13 , previous value from authors was -0.19 2 in 2000To12). Other: -0.19 6 for constructive interference and -0.03 6 for destructive interference (1980Le16), 1972Gr37 , 1969Si15 . 2016St14 give -0.19 6 from 1980Le16 and 2000To12 . β ₂ (pol p,p')=0.25 1 (1993Mo05). See also other values in (p,p'). β ₂ (pol d,d')=0.197 10 (1985Se05). β ₂ (α,α')=0.265 (1988Ba70), deduced from β ₂ R=1.313. β ₂ ((¹⁶ O, ¹⁶ O'),(¹⁸ O, ¹⁸ O'))=0.26 (Coulomb), 0.23 (nuclear) (1976Co04). β ₂ (Coul.ex.)=0.267 (1980Le24). T _{1/2} : from B(E2)↑=0.276 2, weighted average of 0.277 2 (2023Ay02), 0.278 3 (1980Le16), 0.27 2 (1972Sa27), 0.260 5 (1969Si15), 0.263 +32-24 (1962St02), 0.29 3 (1960Wi18), 0.230 35 (1956Te26) from various Coulomb excitation measurements. Other Coulomb excitation measurements with beam energies above the Coulomb barrier: B(E2)↑=0.299 27 (2006Pe13), 0.292 35 (2005Di05), 0.280 42 (1962Er05). Lifetime measurements T _{1/2} =18.4 ps 21 (2013Lo04,RDM), and 18.2 ps 21 (1988DoZU,γγ(t)) are in a good agreement. 2008StZT : measured attenuation parameters G ₂ and G ₄ . μ=+0.64 10 (2013Gu23,2020StZV) Q=+0.28 6 (2001To13) J ^π : L(t,p)=2. T _{1/2} : from B(E2) in Coul. ex. and adopted γ branching ratios. β ₂ (pol p,p')=0.058 (1993Mo05,1986MoZR). See (p,p') for other values. β ₂ (α,α')=-0.057 (1988Ba70). β ₂ (coul.ex.)=0.047 (1980Le24). μ: transient-field method in Coul. ex. (2013Gu23), measured value of +0.78 10 is re-evaluated to +0.64 10 in 2020StZV . Q: reorientation effect in Coul. ex. (2001To13). μ=+0.8 6 (2013Gu23,2020StZV)
1108.416 ^c 27	2 ⁺	9.9 ps 9	A C E GH J LM OP	
1409.982 ^b 34	4 ⁺	1.86 ps 4	A C GH J LMNOP	

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Adopted Levels, Gammas (continued) ^{76}Ge Levels (continued)

E(level) [†]	J ^π [‡]	T _{1/2} or Γ [#]	XREF				Comments
							Q=-0.01 5 (2001To13) J ^π : L(t,p)=4. T _{1/2} : from B(E2) in Coul. ex. β ₄ (pol p,p')=0.064 11, 0.024 6, 0.020 20, 0.001 (1993Mo05,1986MoZR), 0.02 ((p,p'),1983Ra32). μ: transient-field method in Coul. ex. (2013Gu23), measured value of +1.0 7 is re-evaluated to +0.8 6 in 2020StZV. Q: reorientation effect in Coul. ex. (2001To13).
1539.383 ^d 33	3 ⁺	35 ps 7	A	GH	L	P	J ^π : spin from 976γ(θ) in (n,n'γ); M1+E2 gammas to 2 ⁺ . T _{1/2} : from B(E2) in Coul. ex.
1911.12 6	0 ⁺	1.77 ps 8	A C	GH	J L		J ^π : L(t,p)=0. T _{1/2} : from B(E2) in Coul. ex. Other: 1.25 ps +62-35 from DSAM in (n,n'γ). Intruder spherical state based on very small value of expectation value of <Q ² >=0.01 2 deduced by 2001To13 in their Coul. ex. experiment.
2021.68 ^c 4	4 ⁺	1.6 ps 4	A C	GH	LM	P	XREF: M(1970). J ^π : γγ(θ) (⁷⁶ Ge, ⁷⁶ Ge'γ); E2 γ to 2 ⁺ . T _{1/2} : from B(E2) in Coul. ex. Other: 1.5 ps +10-4 from DSAM in (n,n'γ).
2203.84 5	(1,2 ⁺)	0.010 ps 4		G			J ^π : γ to 0 ⁺ .
2284.22 24	(3) ⁻		A	H			J ^π : L(p,p')=3.
2453.74 ^b 6	6 ⁺	0.47 ps +19-16		GH	L N	P	J ^π : E2 γ to 4 ⁺ ; g.s. band member. T _{1/2} : weighted average of 0.59 ps +19-12 from B(E2) in Coul. ex. and 0.26 ps +29-10 from DSAM in (n,n'γ).
2478.2 5	(1,2 ⁺)			G			J ^π : γ to 0 ⁺ .
2487.07 ^d 9	5 ⁺	1.04 ps +55-28		G	L	P	J ^π : E2 γ to 3 ⁺ ; M1+E2 γ to 4 ⁺ .
2504.10 4	2 ⁺	0.7 ps 5	C E	GH	L		J ^π : L(t,p)=2. T _{1/2} : other: 0.15 ps 2 from B(E2)↓ of 2504γ in Coul. ex.
2554? 5				H			
2591.04 16	(1 ⁺ ,2 ⁺)		A	G			J ^π : γ rays to 0 ⁺ and 3 ⁺ .
2624? 5				H			
2654.51 20	(0 ⁺ ,1 ⁺)		A	G			J ^π : γ to 2 ⁺ suggests 0 ⁺ ,1,2,3,4 ⁺ . J ^π =0 ⁺ ,1 ⁺ suggested (1984KoZN) from (n,n'γ) excitation functions.
2655.15 30	(1)			E			J ^π : from γγ(θ) in (γ,γ').
2669.12 5	3 ⁺ ,4 ⁺	1.9 ps +14-6		G		P	J ^π : M1+E2 γs to 3 ⁺ and 4 ⁺ .
2692.347 33	3 ⁻	0.162 ps 14	A C	GH	J L		J ^π : L(t,p)=L(α,α')=3. T _{1/2} : other: values from B(E1)↓ in Coul. ex. are about 3 fs, which are discrepant. β ₃ (pol p,p')=0.15 1 (1993Mo05,1986MoZR). See also other values in (p,p'). β ₃ (α,α')=0.11 (1988Ba70). J ^π : proposed in (n,n'γ); E2 γ to 2 ⁺ . J ^π : L(t,p)=L(p,p')=4. T _{1/2} from DSAM in (n,n'γ) (1987Do14,1990DoZU). J ^π : M1+E2 γs to 2 ⁺ and 3 ⁺ . Excitation function analysis in (n,n'γ) supports 2 ⁺ ,4 ⁺ . XREF: c(2766)h(2768)j(2769)l(2767). J ^π : L(t,p)=L(α,α')=2. XREF: c(2766)h(2768)j(2769)l(2767). E(level): 2766.7 and 2768.8 levels could be the same level. J ^π : L(t,p)=L(α,α')=2. J ^π : L(t,p)=L(p,p')=2. J ^π : M1(+E2) γ to 4 ⁺ ; 4 ⁺ proposed in (n,n'γ) based on excitation function.
2697.20 4	(0) ⁺	0.70 ps +36-18		G			
2733.23 5	4 ⁺	0.33 ps 8	C	GH	j L	P	
2747.75 5	(2) ⁺	0.182 ps 21	A	GH	j		
2766.68 5	2 ⁺	14.6 fs 21	c	Gh	j l		
2768.73 14	2 ⁺		A c	h	j l		
2841.61 10	2 ⁺	0.0277 ps 28	A C	GH	L		
2856.79 10	4 ⁺	97 fs 8		G			

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Adopted Levels, Gammas (continued) ^{76}Ge Levels (continued)

E(level) [†]	J ^π [‡]	T _{1/2} or Γ [#]	XREF			Comments
2897.55 9	0 ⁺	0.310 ps +56-44	C	GH	L	J ^π : L(t,p)=0.
2919.74 8	1 ⁺	0.154 ps 14	A	E G		J ^π : M1γ to 0 ⁺ ; γγ(θ) in (γ,γ'). T _{1/2} : other: 0.30 ps +20-9 from Γ=0.0015 eV 6 from (γ,γ').
2921 5	3 ⁻			H J		J ^π : L(α,α')=L(p,p')=3. 2921 level is treated as different from 2920 level since an intense g.s. transition from 2920 level is inconsistent with L(α,α')=3 for a 2921 group.
2958.06 ^e 16	5 ⁻		C	GH J	P	J ^π : E2 γ to 3 ⁻ , E1 γ to 4 ⁺ . Also supported by L(t,p)=5 and L(α,α')=(5). But L(p,p')=3 suggests 3 ⁻ .
2986.08 7	(2 ⁺ ,3 ⁺)	99.8 fs 62		G		J ^π : proposed in (n,n'γ) based on excitation functions.
2988.09 21					P	J ^π : γs to 5 ⁺ and 6 ⁺ .
2993.89 4	4 ⁺	0.50 ps +13-8	C	GH J		J ^π : L(t,p)=L(α,α')=4.
3004.73 8	(0) ⁺	0.214 ps +38-28		G		J ^π : proposed in (n,n'γ); E2 γ to 2 ⁺ .
3007.16 6	1 ⁺	19 fs 7		E G		J ^π : M1 γ to 0 ⁺ .
3014.2 4	1&	0.0016 eV 2		E		
3021.14 7	(2 ⁺ ,3 ⁺) ^a	0.340 ps +47-36		G		
3033.75 ^c 18	(6 ⁺)				L P	J ^π : γ to 4 ⁺ ; γs to 6 ⁺ and 5 ⁺ ; band member.
3041.37 8	2 ⁺	0.0638 ps 42	C	GH		J ^π : L(t,p)=2.
3052.55 10	2 ⁺ ,3 ⁺ ,4 ⁺	0.035 ps 5		GH		J ^π : M1+E2 γ to 3 ⁺ .
3062.13 9	(4 ⁺ ,5 ⁺) ^a	0.122 ps 22		G		
3066.86 10	(2 ⁺ ,3 ⁺ ,4 ⁺) ^a	0.90 ps +56-28		G		
3070.41 11	4 ⁺ ^a	0.76 ps +49-21		GH		J ^π : M1+E2 γ to 4 ⁺ .
3088.4 7	1&	0.0017 eV 5		E		
3092.10 10	(3 ⁺ ,5 ⁺) ^a	0.268 ps +42-32		GH		XREF: H(3090?).
3129.86 8	2 ⁺	0.245 ps +26-24		GH	L	J ^π : E2 γ to 0 ⁺ . T _{1/2} : other: 0.26 ps +36-11 from B(E2)↓ of 3129.8γ in Coul. ex.
3141.39 6	1 ⁺	119 fs +14-10	A C E G			J ^π : γγ(θ) in (γ,γ'); L(t,p)=L(p,p')=2 with assumed S=1. T _{1/2} from DSAM in (n,n'γ) (2015Cr06). Other: 0.06 ps +7-4 (1990DoZU).
3147.54 10	(2) ⁺	118 fs 13		GH		J ^π : L(p,p')=2.
3162.65 6	(4) ⁺ ^a	14.6 fs 21		GH	L	J ^π : E2+M1 γ to 4 ⁺ .
3181.95 6	(2 ⁺ ,3 ⁺) ^a	0.59 ps +42-18		G		
3182.19 6	(2 ⁺)	0.25 ps +35-11	A	G	O	J ^π : L(p,p')=2+5 for a 3195 group; L(p,t)=(2,3).
3191.05 4	2 ⁺	0.128 ps 14	C	Gh		XREF: h(3195). J ^π : E2 γ to 0 ⁺ .
3195 5	(4 ⁻ ,5 ⁻ ,6 ⁻)			h		J ^π : L(p,p')=2+5 for a 3195 5 level.
3200.01 13	(3) ⁺ ^a	0.7 ps +16-3		G		J ^π : M1+E2 γ to 2 ⁺ .
3200.07 20	(1,2 ⁺)			E		J ^π : γ to 0 ⁺ .
3224 5				H		
3231.8 4	4 ⁺		A C	H J		XREF: A(?)H(3240). J ^π : L(t,p)=L(α,α')=4.
3236.02 9	(5) ⁺ ^a	30.5 fs +35-28		G	P	J ^π : M1+E2 γ to 4 ⁺ , γ to 6 ⁺ . Other: (6 ⁺) in (^{76}Ge , $^{76}\text{Ge}'$).
3243.79 7	1 ⁺	40.9 fs +35-28		G		J ^π : M1 γ to 0 ⁺ .
3268 5	(4 ⁺)			H J		J ^π : L(α,α')=(4). But L(p,p')=(5) suggests 4 ⁻ ,5 ⁻ ,6 ⁻ .
3312.29 11	3 ⁻		A c	h J		J ^π : L(α,α')=3. Also L(p,p')=0+3 for a doublet. L(t,p)=0,1 and 3,4 also indicates a doublet with J ^π =0 ⁺ or 1 ⁻ and 3 ⁻ or 4 ⁺ .
3317 5	(0 ⁺)		c	h		J ^π : L(p,p')=0+3 for a doublet and L(t,p)=0,1 and

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Adopted Levels, Gammas (continued) ^{76}Ge Levels (continued)

E(level) [†]	J ^π [‡]	T _{1/2} or Γ [#]	XREF		Comments
3322.80 6	(2 ⁺)	0.16 ps +14–6	A	G	3,4 for a doublet. L=3 component is associated with the 3312 level. J ^π : γs to 2 ⁺ and 4 ⁺ . Excitation function analysis in (n,n'γ) suggests 2 ⁺ .
3349 5				H	
3391 5	(4 ⁺ ,5 ⁻)		C	H J	J ^π : L(p,p')=5 but L(t,p)=(4).
3409.19 18	(1,2,3) [@]		A	H	XREF: H(3402).
3419.47 31	1 ⁺			E G	J ^π : γ to 0 ⁺ ; γγ(θ) in (pol γ,γ').
3436.9 4				H	
3453 5	(4 ⁺)			H	J ^π : L(p,p')=4.
3477.62 17	(2 ⁺ ,3) [@]		A C		E(level),J ^π : L(t,p)=1 or 0 (and L>1); γ from 4 ⁺ . Probably a doublet with 1 ⁻ or 0 ⁺ for one of the components.
3484.0 7	3 ⁻			GH J	J ^π : L(α,α')=3.
3506 5				H	
3532.81 ^d 30	(7 ⁺)			h	J ^π : γ to 5 ⁺ ; member of γ band.
3536.0 4				h	
3543.27 ^b 34	8 ⁺			L N P	J ^π : γ to 6 ⁺ ; g.s. band member.
3545 5	2 ⁺		C	H J	J ^π : L(α,α')=2. But L(t,p)=0,1 and 3,4 suggests 0 ⁺ or 1 ⁻ and 3 ⁻ or 4 ⁺ for a doublet.
3576.96 26		30 fs +6–5		G	
3585 5	(2 ⁺)			H J	J ^π : L(α,α')=(2) and L(p,p')=2.
3596.79 31	2 ⁺ &			E	
3606 5				H	
3632.92 10	(2 ⁺)		A		J ^π : γ rays to 0 ⁺ and (4 ⁺).
3640 5	(4 ⁻ ,5 ⁻ ,6 ⁻)		c	H j	XREF: c(3648).
3658 5			c	H j	J ^π : L(p,p')=5. But L(t,p)=(2) for 3648 suggests 2 ⁺ . XREF: c(3648).
3680.70 10	1 ⁻ &			E	
3691 5				H	
3721 5	(5 ⁻)		C	H J	J ^π : L(α,α')=(5) and L(p,p')=5.
3727.83 ^e 26	(7 ⁻)				J ^π : γ rays to 6 ⁺ and (5 ⁻); possible band member.
3748 5	2 ⁺			H J	J ^π : L(α,α')=2.
3763.40 18	1 ⁺ &			E	
3783.57 28	(4 ⁺ ,5,6,7 ⁻)			H	J ^π : γ rays to (5 ⁻) and 6 ⁺ .
3805 5			C	H	
3815 5				H	
3848 5				H	
3868 5				H	
3883 5			c	H J	XREF: J(3871).
3886.97 19	(3 ⁻)		A c	H J	XREF: H(3904)J(3893).
3951.88 7	1 ⁻	28 fs 5	A	E G	J ^π : L(α,α')=L(p,p')=3. J ^π : from (pol γ,γ') data at HIGS-TUNL facility (priv. comm. of Feb 20, 2016 from W. Tornow); also γs to 0 ⁺ , 2 ⁺ and 3 ⁻ . T _{1/2} from DSAM in (n,n'γ) (2015Cr06).
3972 5	(4 ⁺)			H J	XREF: J(3952).
3997 5	4 ⁺			H J	J ^π : L(α,α')=(4). XREF: J(3978).
4024.11 20	1 ⁽⁻⁾ &	0.0055 eV 11	E	H	J ^π : L(α,α')=L(p,p')=4. XREF: H(?).
4035.12 20	1&	0.0053 eV 20	E		
4057? 5				H	
4073 5				H J	XREF: J(4052).

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Adopted Levels, Gammas (continued) ^{76}Ge Levels (continued)

E(level) [†]	J ^π [‡]	T _{1/2} or Γ [#]	XREF		Comments
4099 5	5 ⁻		H	J	XREF: J(4073).
4116.02 20	1 ⁺ &		E		
4122.28? 31	(1,2 ⁺)		A	H	J ^π : γ to 0 ⁺ .
4129.8 ^c 5	8 ⁺			L P	J ^π : γ to 6 ⁺ ; member of γ band.
4130.6 4				P	
4153 5			H	J	XREF: J(4126).
4192.80? 12	(2 ⁺ ,3)		A	H	J ^π : L(p,p')=4 suggests 3 ⁺ ,4 ⁺ ,5 ⁺ but L(α,α')=(1) suggests 1 ⁻ .
4209 5	3 ⁻			H J	J ^π : γ rays to 4 ⁺ and 1.
					XREF: J(4180).
					J ^π : L(α,α')=L(p,p')=3.
4239.36 14	(1,2,3) @		A	H	
4249 5	4 ⁺			H J	XREF: J(4220).
					J ^π : L(α,α')=4.
4250.93 30	1 ⁺ &		E		
4272 5				H	
4311.1 4					P
4326.43 16	(1,2,3) @		A	H	
4331.3 12	1 ⁺ &	0.050 eV 10	E		
4363.47 19	4 ⁺		A	H J	XREF: J(4332).
					J ^π : L(α,α')=L(p,p')=4.
4399 5	(3 ⁺ ,4 ⁺ ,5 ⁺)			H J	XREF: J(4367).
					J ^π : L(p,p')=4.
4426 10				H J	XREF: J(4402).
4444 10	(3 ⁺ ,4 ⁺ ,5 ⁺)			H	J ^π : L(p,p')=(4).
4476.67? 21	(≤4)		A	H	XREF: H(4468).
					J ^π : γ to 2 ⁺ suggests 0 ⁺ ,1,2,3,4 ⁺ .
4488 10	3 ⁻			H J	XREF: J(4453).
					J ^π : L(α,α')=3.
4536 10	(3 ⁺ ,4 ⁺ ,5 ⁺)			H J	XREF: J(4500).
					J ^π : L(p,p')=4. L(α,α')=(3,4) suggests a doublet with 3 ⁻ and 4 ⁺ .
4546.8 ^d 5	9 ⁺				P J ^π : γ to 7 ⁺ ; member of γ band.
4570 10				H J	XREF: J(4530).
					J ^π : L(α,α')=(3,5) suggests a doublet with 3 ⁻ and 5 ⁻ .
4611 10	(3 ⁻)		A	H J	XREF: J(4570).
					J ^π : L(α,α')=(3).
4613.0 ^b 5	10 ⁺				P J ^π : γ to 8 ⁺ ; band member.
4623.7 11	1 ⁺ &		E		
4659 10	(5 ⁻)			H J	XREF: J(4615).
					J ^π : L(α,α')=(5).
4661.2 4	1 ⁺ &		E		
4678.26 10	1 ⁺ &		E		
4686.8 ^e 4	(9 ⁻)				P J ^π : γ rays to 8 ⁺ and (7 ⁻); possible band member.
4698 10				H	
4719.88 18	(2 ⁺ ,3,4 ⁺)		A		J ^π : γ rays to (2 ⁺) and (4 ⁺).
4720.5 4					P
4722.36 20	(1) &		E		
4736 10				H	
4741.16 20			E		
4767 10				H	
4784.04? 26	(1,2,3) @		A		
4789.06 30			E		

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{76}Ge Levels (continued)

E(level) [†]	J ^π [‡]	T _{1/2} or Γ [#]	XREF		Comments
4812.47? 18	(2 ⁺ ,3)		A	h	J ^π : γ rays to 4 ⁺ and 1.
4814.92? 27	(1,2,3) [@]		A	h	
4837.2 4	(1)&			E	
4839 10	(3 ⁺ ,4 ⁺ ,5 ⁺)			H	J ^π : L(p,p')=(4).
4846.07 30	1&			E	
4874.67 20				E H	
4917.2 6	1&			E	
4936.07 20	1&		A	E H	
5116.59 20	1&			E	
5122.47 14	(1,2,3) [@]		A		
5166.89 20	(1)&			E	
5185.99 10	(1)&			E	
5202.49 20	1&			E	
5222.19 30				E	
5267.00 30	1			E h	XREF: h(5276).
5273.8 6	(1)&			E H	
5285.10 20	1&			E h	XREF: h(5276).
5304.30 30	1&			E	
5365.80 30	1&		A	E	XREF: A(5350).
5379.7 4	1&			E	
5390.8 5	(1)&			E	
5418.8 4	(1)&			E	
5434.51 30	1&			E	
5450.0? ^b 7	(12 ⁺)				P J ^π : possible band member.
5522.58 20	(1,2,3) [@]		A		
5540.42 20	1&	0.103 eV 18		E	
5567.62 20	(1)&			E	
5579.0 5	1&			E	
5626.7 8	1&	0.133 eV 20		E	
5663.32 14	(2 ⁺)		A		J ^π : γ rays to 0 ⁺ and 4 ⁺ .
5665.43 30	1&			E	
5677.83 30	1&			E	
5699.03 20	1-&	0.256 eV 22		E	
5708.6 6	(1)&			E	
5748.53 10	1-&	0.166 eV 24		E	
5749.90? 32	(1,2,3) [@]		A		
5785.24 20	1&			E	
5794.34 20	1&			E	
5821.0 6				E	
5825.5 8	1&			E	
5843.2 ^e 6	(11 ⁻)				P J ^π : γ to (9 ⁻); possible band member.
5846.7 7				E	
5865.0 6				E	
5882.92? 24	(1,2,3) [@]		A		
5909.05 30				E	
5955.9 8	1&	0.194 eV 23		E	

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Adopted Levels, Gammas (continued) ^{76}Ge Levels (continued)

<u>E(level)[†]</u>	<u>J^{π‡}</u>	<u>T_{1/2} or Γ[#]</u>	<u>XREF</u>
5983.25 20	1 ⁻ &	0.150 eV 20	E
6021.13? 28	(1,2,3) @		A
6048.7 4	1&		E
6065.1? 4	(1,2,3) @		A
6081.7 4	(1)&		E
6102.3 9			E
6113.86 30	1&		E
6130.57 20	1&		E
6145.87 20	1&		E
6162.7 9			E
6191.57 20	1&		E
6223.7 7			E
6228.5 4	1&		E
6235.1 9			E
6240.98 30	1&		E
6272.98 30	1&		E
6285.58 20	1&		E
6315.7 4	1&		E
6330.48 20	1&		E
6366.5 11			E
6393.5 5	1&		E
6408.4 5	1&		E
6436.4 9			E
6448.6 11			E
6472.50 30	1&		E
6498.20 30	1&		E
6513.6 4	1&		E
6572.3 6			E
6601.51 20	1&		E
6611.4 6			E
6629.31 30	1&		E
6642.2 5			E
6661.7 9			E
6670.91 30	1&		E
6741.9 6	(1)&		E
6765.1 4	1&		E
6787.03 20	1&		E
6816.83 30	1&		E
6835.83 20	1&		E
6846.53 30	1&		E
6880.6 4	1&		E
6884.5 10			E
6899.2 5	1&		E
6908.3 18			E
6938.9 7	1&		E
6960.24 30	1&		E

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{76}Ge Levels (continued)

E(level) [†]	J ^π [‡]	T _{1/2} or Γ [#]	XREF	E(level) [†]	J ^π [‡]	T _{1/2} or Γ [#]	XREF
6985.4 5	1 ^{&}		E	8018.0 14	(1) ^{&}		E
6999.05 30	1 ⁻ ^{&}	0.28 eV 4	E	8027.0 8	(1) ^{&}		E
7011.4 9	1		E	8049.8 6	(1) ^{&}		E
7026.35 30	1 ⁽⁻⁾ ^{&}	0.39 eV 4	E	8063.9 8	1		E
7048.3 9	1 ^{&}		E	8094.7 8			E
7081.6 9	1 ^{&}		E	8103.3 5			E
7091.8 4	1 ^{&}		E	8110.0 8			E
7102.8 6	1 ^{&}		E	8135.0 11			E
7121.66 30	1 ^{&}		E	8152.3 5	1 ⁽⁻⁾ ^{&}	0.71 eV 7	E
7130.46 30	1 ^{&}		E	8160.7 9			E
7147.7 4	1 ^{&}		E	8178.3 4	1 ^{&}		E
7172.0 9			E	8188.3 5	1 ^{&}		E
7250.9 7	1 ⁻ ^{&}		E	8236.9 4	(1) ^{&}		E
7290.1 4			E	8253.4 9			E
7301.08 30	1 ⁻ ^{&}		E	8260.1 6	(1) ^{&}		E
7407.09 30	1 ^{&}		E	8284.99 30	(1) ^{&}		E
7416.0 4			E	8294.8 12			E
7452.6 5			E	8304.0 5	1 ^{&}		E
7479.0 5			E	8318.29 30	1 ^{&}		E
7485.40 30	1 ^{&}		E	8329.4 7	1 ^{&}		E
7521.6 5	1 ^{&}		E	8348.2 9			E
7537.0 4	(1) ^{&}		E	8357.9 7	(1) ^{&}		E
7549.2 7	(1) ^{&}		E	8397.8 5			E
7585.0 4	1 ^{&}		E	8418.5 15			E
7643.0 4	1 ^{&}		E	8425.70 30	1 ^{&}	0.29 eV 5	E
7651.2 4	1 ^{&}		E	8446.6 7	(1) ^{&}		E
7678.1 4	1 ^{&}		E	8462.4 9			E
7694.6 11	1 ^{&}	0.30 eV 5	E	8500.51 30	1 ^{&}		E
7723.1 4	(1) ^{&}		E	8521.2 6			E
7777.3 7	(1) ^{&}		E	8535.6 5	1 ^{&}		E
7784.2 9			E	8546.6 5	1 ⁻ ^{&}	0.76 eV 9	E
7797.0 4	1 ^{&}		E	8552.8 8	1 ^{&}		E
7804.1 6	1 ^{&}		E	8567.42 30	1 ^{&}		E
7814.7 7	1 ^{&}		E	8602.8 5			E
7817.63 20			E	8626.2 7	1 ^{&}		E
7836.7 6			E	8649.6 8			E
7849.7 5	(1) ^{&}		E	8662.5 4	(1) ^{&}		E
7861.6 4	1 ^{&}		E	8696.7 7			E
7883.7 10	1 ^{&}		E	8741.2 4	(1) ^{&}		E
7894.0 12			E	8753.2 6	1 ⁻ ^{&}		E
7916.2 24	1 ⁻ ^{&}	0.72 eV 17	E	8768.9 9	1 ^{&}		E
7950.35 20	1 ^{&}		E	8806.8 5			E
7976.1 7	(1) ^{&}		E	8844.3 4	1 ^{&}		E
7996.3 4	(1) ^{&}		E	8889.1 9			E

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Adopted Levels, Gammas (continued) ^{76}Ge Levels (continued)

E(level) [†]	J^π [‡]	$T_{1/2}$ or Γ [#]	XREF	E(level) [†]	J^π [‡]	XREF
9014.2 14	1 ⁻ &	0.71 eV 8	E	9305.6 4		E
9020.1 10	(1)&		E	9316.4 4		E
9033.7 9			E	9338.4 6		E
9052.3 12	(1)&		E	9355.1 8	(1)&	E
9059.1 11			E	9366.5 5	1&	E
9163.9 9	1&		E	9378.5 4	(1)&	E
9176.1 8	1&		E	9400.0 6	1&	E
9188.0 4	1&		E	9410.5 4	1&	E
9255.2 7			E	9418.2 5	1&	E
9264.7 6			E	9557.2 5	1&	E

[†] For levels populated in γ -ray studies, E(level) values are from least-squares fit to $E\gamma$ data, assuming 0.5 keV uncertainty when stated. Normalized $\chi^2=1.1$. In other cases values are averages from different reaction studies. In (p,p') and (α,α'), values for similar levels differ systematically (higher by 12 keV to 45 keV in the 3700-4600 range). Values from (p,p') are adopted here (since many more levels are reported in (p,p') than in (α,α')), although, it is difficult to know as to which dataset is more accurate.

[‡] Log ft values from ^{76}Ga decay have not been used in assigning J^π values since $J^\pi(^{76}\text{Ga g.s.})=(3^-)$ is only tentative. Moreover, several γ -ray placements remain uncertain. For levels above ≈ 3000 , values are given in parentheses when available only from L(p,p') and/or L(t,p) due to following reasons: 1. The agreement of $\sigma(\theta)$ fits to DWBA is not good over the whole angular range. 2. The correspondence between levels in different reactions is not unique due to large level density and large uncertainties in E(level) from particle reactions.

[#] From DSA in (n,n' γ) (1990DoZU,1984KoZN,2015Cr06) for levels above 2.1 MeV, unless otherwise stated. Below this energy, values are deduced by the evaluators from B(E2) values in Coul. ex. Level widths are from $^{76}\text{Ge}(\gamma,\gamma'),(\text{pol } \gamma,\gamma')$.

@ Possible β^- feeding from $2^{(-)}$ (see $^{76}\text{Ga } \beta^-$ decay). Since the level scheme is not well established, the J^π assignment is considered as tentative.

& From $\gamma\gamma(\theta)$ in (γ,γ'), parity from (pol γ,γ').

^a Proposed in (n,n' γ) based on excitation functions and γ decay pattern.

^b Band(A): The g.s. band.

^c Band(B): γ band, even spin.

^d Band(b): γ band, odd spin.

^e Band(C): Band based on 5^- .

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$

Additional information 3.

$E_i(\text{level})$	J_i^π	$E_\gamma^{\ddagger}$	$I_\gamma^{\ddagger}$	E_f	J_f^π	Mult. #	$\delta^\#$	$\alpha^\dagger$	Comments
562.917	2 ⁺	562.93 3	100	0.0	0 ⁺	E2		1.64×10^{-3} 2	B(E2)(W.u.)=28.81 21 $\alpha(\text{K})=0.001463$ 20; $\alpha(\text{L})=0.0001529$ 21; $\alpha(\text{M})=2.279 \times 10^{-5}$ 32 $\alpha(\text{N})=1.460 \times 10^{-6}$ 20
1108.416	2 ⁺	545.51 3	100 3	562.917	2 ⁺	E2+M1	+2.4 2	1.70×10^{-3} 3	B(M1)(W.u.)=0.00119 +24-18; B(E2)(W.u.)=31.0 +34-29 $\alpha(\text{K})=0.001520$ 25; $\alpha(\text{L})=0.0001588$ 27; $\alpha(\text{M})=2.37 \times 10^{-5}$ 4 $\alpha(\text{N})=1.519 \times 10^{-6}$ 25 δ : weighted average of +2.5 2 from $\gamma(\theta)$ in (n,n' γ) and +2.1 4 from $\gamma\gamma(\theta)$ in (^{76}Ge , $^{76}\text{Ge}'$). B(E2)(W.u.)=0.74 +8-7 $\alpha(\text{K})=0.0002491$ 35; $\alpha(\text{L})=2.55 \times 10^{-5}$ 4; $\alpha(\text{M})=3.80 \times 10^{-6}$ 5 $\alpha(\text{N})=2.487 \times 10^{-7}$ 35; $\alpha(\text{IPF})=1.013 \times 10^{-6}$ 14
		1108.41 8	70 4	0.0	0 ⁺	E2		0.000280 4	B(E2)(W.u.)=36.5 8 $\alpha(\text{K})=0.000475$ 7; $\alpha(\text{L})=4.89 \times 10^{-5}$ 7; $\alpha(\text{M})=7.29 \times 10^{-6}$ 10 $\alpha(\text{N})=4.74 \times 10^{-7}$ 7
1409.982	4 ⁺	847.11 5	100	562.917	2 ⁺	E2		0.000531 7	$\alpha(\text{K})=0.00300$ 6; $\alpha(\text{L})=0.000316$ 7; $\alpha(\text{M})=4.71 \times 10^{-5}$ 10 $\alpha(\text{N})=2.99 \times 10^{-6}$ 6 B(M1)(W.u.)=7.2 $\times 10^{-4}$ +19-15; B(E2)(W.u.)=18.0 +46-31 I_γ : from $^{238}\text{U} (^{76}\text{Ge}, ^{76}\text{Ge}'\gamma)$ (2013To05). Value of 75 from (n,n' γ) is in agreement, but 200 15 in β^- decay (1971Ca39) is in severe disagreement. Value from 2013To05 is preferred here as the branching ratio in this work is supported by $\gamma\gamma$ -coin data, whereas no coincidence data were obtained in 1971Ca39. Moreover, there are many contaminants present in γ -ray spectrum from ^{76}Ga decay obtained by 1971Ca39.
1539.383	3 ⁺	430.95 5	69 5	1108.416	2 ⁺	M1+E2	+1.86 +17-11	0.00336 7	δ : weighted average of +1.8 4 from (^{76}Ge , $^{76}\text{Ge}'\gamma$) and +1.87 +17-11 from (n,n' γ). The smaller values in those datasets are less likely. $\alpha(\text{K})=0.000329$ 5; $\alpha(\text{L})=3.37 \times 10^{-5}$ 5; $\alpha(\text{M})=5.03 \times 10^{-6}$ 7 $\alpha(\text{N})=3.29 \times 10^{-7}$ 5 B(M1)(W.u.)=5.1 $\times 10^{-5}$ +16-10; B(E2)(W.u.)=0.49 +12-8 δ : weighted average of +2.5 2 from (^{76}Ge , $^{76}\text{Ge}'\gamma$) and +2.72 20 from (n,n' γ). B(E2)(W.u.)=3.75 +18-16 $\alpha(\text{K})=0.0001625$ 23; $\alpha(\text{L})=1.654 \times 10^{-5}$ 23;
		976.48 5	100 3	562.917	2 ⁺	M1+E2	+2.61 20	0.000368 5	
1911.12	0 ⁺	1348.19 6	100	562.917	2 ⁺	E2		0.0002213 31	

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$ (continued)									
$E_i(\text{level})$	J_i^π	E_γ [‡]	I_γ [‡]	E_f	J_f^π	Mult. [#]	δ [#]	α [†]	Comments
2021.68	4 ⁺	482.33 5	14.2 15	1539.383	3 ⁺	M1+E2		0.0021 6	$\alpha(\text{M})=2.469\times 10^{-6}$ 35 $\alpha(\text{N})=1.621\times 10^{-7}$ 23; $\alpha(\text{IPF})=3.96\times 10^{-5}$ 6 $\alpha(\text{K})=0.0018$ 5; $\alpha(\text{L})=1.9\times 10^{-4}$ 5; $\alpha(\text{M})=2.9\times 10^{-5}$ 8 $\alpha(\text{N})=1.9\times 10^{-6}$ 5 δ : +0.48 +9-7 or +2.9 1 from (n,n' γ) (2017Mu03). B(M1)(W.u.)=0.0096 +34-22 if M1, B(E2)(W.u.)=55 +20-13 if E2.
		611.72 4	67.9 33	1409.982	4 ⁺	M1+E2	+0.50 8	0.000965 25	$\alpha(\text{K})=0.000862$ 22; $\alpha(\text{L})=8.88\times 10^{-5}$ 23; $\alpha(\text{M})=1.326\times 10^{-5}$ 35 $\alpha(\text{N})=8.68\times 10^{-7}$ 22 B(M1)(W.u.)=0.018 +6-4; B(E2)(W.u.)=16 +7-5
		913.2 4	100 4	1108.416	2 ⁺	E2		0.000440 6	δ : from $\gamma\gamma(\theta)$ in (^{76}Ge , $^{76}\text{Ge}'$). B(E2)(W.u.)=16 +6-3 $\alpha(\text{K})=0.000394$ 6; $\alpha(\text{L})=4.04\times 10^{-5}$ 6; $\alpha(\text{M})=6.03\times 10^{-6}$ 8 $\alpha(\text{N})=3.93\times 10^{-7}$ 6 E_γ : from (^{76}Ge , $^{76}\text{Ge}'$) γ . Other: 913.2 5 in (n,n' γ). $E_\gamma=911.40$ 11 from β^- decay is inconsistent.
2203.84	(1,2 ⁺)	1097.4 5		1108.416	2 ⁺				
		2203.79		0.0	0 ⁺				
2284.22	(3) ⁻	1175.7 5	100	1108.416	2 ⁺				
2453.74	6 ⁺	1043.75 5	100	1409.982	4 ⁺	E2		0.000320 4	B(E2)(W.u.)=51 +26-15 $\alpha(\text{K})=0.000286$ 4; $\alpha(\text{L})=2.93\times 10^{-5}$ 4; $\alpha(\text{M})=4.37\times 10^{-6}$ 6 $\alpha(\text{N})=2.86\times 10^{-7}$ 4
2478.2	(1,2 ⁺)	1915 1		562.917	2 ⁺				
		2478.2 5		0.0	0 ⁺				
2487.07	5 ⁺	465.33 10	10.9 10	2021.68	4 ⁺	M1+E2		0.0023 7	$\alpha(\text{K})=0.0020$ 6; $\alpha(\text{L})=2.1\times 10^{-4}$ 6; $\alpha(\text{M})=3.2\times 10^{-5}$ 9 $\alpha(\text{N})=2.1\times 10^{-6}$ 6 δ : +0.65 +93-18 or +1.4 10 (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.020 +8-7 if M1, B(E2)(W.u.)=123 +46-42 if E2.
		947.77 17	100.0 33	1539.383	3 ⁺	E2		0.000402 6	$\alpha(\text{K})=0.000359$ 5; $\alpha(\text{L})=3.69\times 10^{-5}$ 5; $\alpha(\text{M})=5.51\times 10^{-6}$ 8 $\alpha(\text{N})=3.59\times 10^{-7}$ 5 B(E2)(W.u.)=32 +12-11
		1077.2 ^d 4	5 5	1409.982	4 ⁺	[M1,E2]		0.000282 16	$\alpha(\text{K})=0.000252$ 14; $\alpha(\text{L})=2.57\times 10^{-5}$ 15; $\alpha(\text{M})=3.84\times 10^{-6}$ 23 $\alpha(\text{N})=2.52\times 10^{-7}$ 14 B(M1)(W.u.)<0.002 if M1, B(E2)(W.u.)<2.3 if E2.
2504.10	2 ⁺	964.68 5	16.0 14	1539.383	3 ⁺	E2+M1		0.000360 26	$\alpha(\text{K})=0.000322$ 23; $\alpha(\text{L})=3.29\times 10^{-5}$ 25; $\alpha(\text{M})=4.9\times 10^{-6}$ 4 $\alpha(\text{N})=3.22\times 10^{-7}$ 23 δ : +2.8 +11-8 or +0.57 +18-12 (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.0033 +40-15 if M1, B(E2)(W.u.)=5 +6-2 if E2.
		1094.22 12	20.2 14	1409.982	4 ⁺	E2		0.000287 4	$\alpha(\text{K})=0.000257$ 4; $\alpha(\text{L})=2.62\times 10^{-5}$ 4; $\alpha(\text{M})=3.92\times 10^{-6}$ 5

Adopted Levels, Gammas (continued)

<u>$\gamma(^{76}\text{Ge})$ (continued)</u>									Comments
<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>$E_\gamma^{\ddagger}$</u>	<u>$I_\gamma^{\ddagger}$</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.#</u>	<u>$\delta^\#$</u>	<u>$\alpha^\dagger$</u>	
2504.10	2 ⁺	1395.66 5	100 5	1108.416	2 ⁺	E2+M1		0.000210 11	$\alpha(\text{N})=2.56\times 10^{-7}$ 4 B(E2)(W.u.)=3.2 +38-14 $\alpha(\text{K})=0.000147$ 5; $\alpha(\text{L})=1.49\times 10^{-5}$ 5; $\alpha(\text{M})=2.23\times 10^{-6}$ 7 $\alpha(\text{N})=1.47\times 10^{-7}$ 4; $\alpha(\text{IPF})=4.6\times 10^{-5}$ 6 δ : +1.9 2 or +0.08 4 (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.007 +8-3 if M1, B(E2)(W.u.)=5 +6-2 if E2. B(E2)(W.u.)=0.09 +11-4 $\alpha(\text{K})=5.04\times 10^{-5}$ 7; $\alpha(\text{L})=5.09\times 10^{-6}$ 7; $\alpha(\text{M})=7.59\times 10^{-7}$ 11 $\alpha(\text{N})=5.02\times 10^{-8}$ 7; $\alpha(\text{IPF})=0.000555$ 8
		2504.08 6	35.3 17	0.0	0 ⁺	E2		0.000611 9	
2591.04	(1 ⁺ ,2 ⁺)	1051.7 2	95 14	1539.383	3 ⁺				
		1482.5 3	100 15	1108.416	2 ⁺				
		2591.0 4	55 10	0.0	0 ⁺				
2654.51	(0 ⁺ ,1 ⁺)	1546.0 4	100 20	1108.416	2 ⁺				
		2091.9 4	42 10	562.917	2 ⁺				
2655.15	(1)	2655.1 3		0.0	0 ⁺				
2669.12	3 ⁺ ,4 ⁺	647.44 4	25.6 20	2021.68	4 ⁺	M1+E2		0.00094 16	$\alpha(\text{K})=0.00084$ 14; $\alpha(\text{L})=8.6\times 10^{-5}$ 15; $\alpha(\text{M})=1.29\times 10^{-5}$ 22 $\alpha(\text{N})=8.4\times 10^{-7}$ 14 δ : -0.01 10 or +1.1 2 (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.0059 +28-24 if M1, B(E2)(W.u.)=19 +9-8 if E2. $\alpha(\text{K})=0.0002166$ 30; $\alpha(\text{L})=2.200\times 10^{-5}$ 31; $\alpha(\text{M})=3.29\times 10^{-6}$ 5 $\alpha(\text{N})=2.171\times 10^{-7}$ 30; $\alpha(\text{IPF})=1.330\times 10^{-6}$ 19 B(M1)(W.u.)=0.0043 +23-20; B(E2)(W.u.)<0.0063 $\alpha(\text{K})=0.000181$ 7; $\alpha(\text{L})=1.84\times 10^{-5}$ 8; $\alpha(\text{M})=2.75\times 10^{-6}$ 11 $\alpha(\text{N})=1.81\times 10^{-7}$ 7; $\alpha(\text{IPF})=1.66\times 10^{-5}$ 25 δ : -0.002 63 or +1.09 2 (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.0019 +9-8 if M1, B(E2)(W.u.)=1.6 +8-6 if E2.
		1129.79 10	100 6	1539.383	3 ⁺	M1(+E2)	+0.01 2	0.0002434 34	
		1259.12 5	59.7 22	1409.982	4 ⁺	M1+E2		0.000219 10	
2692.347	3 ⁻	1282.36 ^c 4	<14 ^c	1409.982	4 ⁺	E1		0.0002001 28	B(E1)(W.u.)<1.4 $\times 10^{-4}$ $\alpha(\text{K})=8.68\times 10^{-5}$ 12; $\alpha(\text{L})=8.77\times 10^{-6}$ 12; $\alpha(\text{M})=1.308\times 10^{-6}$ 18 $\alpha(\text{N})=8.60\times 10^{-8}$ 12; $\alpha(\text{IPF})=0.0001032$ 14 B(E1)(W.u.)=3.16 $\times 10^{-5}$ +48-43 $\alpha(\text{K})=6.09\times 10^{-5}$ 9; $\alpha(\text{L})=6.14\times 10^{-6}$ 9; $\alpha(\text{M})=9.16\times 10^{-7}$ 13 $\alpha(\text{N})=6.03\times 10^{-8}$ 8; $\alpha(\text{IPF})=0.000320$ 4 B(E1)(W.u.)=2.00 $\times 10^{-4}$ +21-18 $\alpha(\text{K})=3.86\times 10^{-5}$ 5; $\alpha(\text{L})=3.88\times 10^{-6}$ 5; $\alpha(\text{M})=5.80\times 10^{-7}$ 8 $\alpha(\text{N})=3.82\times 10^{-8}$ 5; $\alpha(\text{IPF})=0.000722$ 10 $\alpha(\text{K})=6.77\times 10^{-5}$ 9; $\alpha(\text{L})=6.86\times 10^{-6}$ 10; $\alpha(\text{M})=1.024\times 10^{-6}$
		1583.93 3	6.5 7	1108.416	2 ⁺	E1		0.000388 5	
		2129.38 6	100 3	562.917	2 ⁺	E1		0.000765 11	
		2691.6 ^d 4	6.9 18	0.0	0 ⁺	[E3]		0.000501 7	

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	E_f	J_f^π	Mult.#	$\delta^\#$	$\alpha^\ddagger$	Comments
									<i>14</i> $\alpha(\text{N})=6.77\times 10^{-8}$ 9; $\alpha(\text{IPF})=0.000425$ 6 Tentative B(E3)(W.u.)=700 350. I_γ : this value is questionable since reduced transition probability is 9.4 W.u. in (p,p'); and 11.7 W.u. in (α,α'), which suggest $I_\gamma\approx 0.1$. This γ ray was reported in ^{76}Ga β^- decay only, where it may have been contributed mainly by a sum line. B(E3)(W.u.)= 1.22×10^3 32 exceeds RUL=100. $\alpha(\text{K})=0.0001163$ 16; $\alpha(\text{L})=1.181\times 10^{-5}$ 17; $\alpha(\text{M})=1.762\times 10^{-6}$ 25 $\alpha(\text{N})=1.160\times 10^{-7}$ 16; $\alpha(\text{IPF})=0.0001217$ 17 B(E2)(W.u.)= $0.88+32-29$ $\alpha(\text{K})=6.67\times 10^{-5}$ 9; $\alpha(\text{L})=6.75\times 10^{-6}$ 9; $\alpha(\text{M})=1.007\times 10^{-6}$ 14 $\alpha(\text{N})=6.65\times 10^{-8}$ 9; $\alpha(\text{IPF})=0.000376$ 5 B(E2)(W.u.)= $0.75+27-25$
2697.20	(0) ⁺	1588.76 4	26.7 13	1108.416	2 ⁺	E2		0.0002517 35	$\alpha(\text{K})=0.000202$ 9; $\alpha(\text{L})=2.06\times 10^{-5}$ 10; $\alpha(\text{M})=3.08\times 10^{-6}$ 14 $\alpha(\text{N})=2.02\times 10^{-7}$ 9; $\alpha(\text{IPF})=6.7\times 10^{-6}$ 11 δ : $+4.3$ 9 or $+0.36+6-5$ (2017Mu03) in (n,n' γ). B(M1)(W.u.)= $0.015+6-5$ if M1, B(E2)(W.u.)= $14+6-5$ if E2. $\alpha(\text{K})=0.0001113$ 16; $\alpha(\text{L})=1.129\times 10^{-5}$ 16; $\alpha(\text{M})=1.686\times 10^{-6}$ 24 $\alpha(\text{N})=1.110\times 10^{-7}$ 16; $\alpha(\text{IPF})=0.0001372$ 19 B(E2)(W.u.)= $4.9+20-11$
2733.23	4 ⁺	1193.92 12	63 27	1539.383	3 ⁺	E2+M1		0.000233 11	$\alpha(\text{K})=0.0001896$ 27; $\alpha(\text{L})=1.924\times 10^{-5}$ 27; $\alpha(\text{M})=2.87\times 10^{-6}$ 4 $\alpha(\text{N})=1.899\times 10^{-7}$ 27; $\alpha(\text{IPF})=7.17\times 10^{-6}$ 11 B(M1)(W.u.)= $0.0155+28-26$; B(E2)(W.u.)= $0.12+16-9$
		1624.78 5	100 4	1108.416	2 ⁺	E2		0.000262 4	$\alpha(\text{K})=0.0001053$ 15; $\alpha(\text{L})=1.065\times 10^{-5}$ 15; $\alpha(\text{M})=1.590\times 10^{-6}$ 22 $\alpha(\text{N})=1.052\times 10^{-7}$ 15; $\alpha(\text{IPF})=0.0001145$ 16 B(M1)(W.u.)= $0.0195+36-29$; B(E2)(W.u.) <0.011 $\alpha(\text{K})=6.32\times 10^{-5}$ 12; $\alpha(\text{L})=6.38\times 10^{-6}$ 12; $\alpha(\text{M})=9.53\times 10^{-7}$ 18 $\alpha(\text{N})=6.30\times 10^{-8}$ 11; $\alpha(\text{IPF})=0.000371$ 30 δ : $+2.9+23-11$ or $-0.07+15-6$ (2017Mu03) in (n,n' γ). B(M1)(W.u.)= $7.0\times 10^{-4}+11-9$ if M1, B(E2)(W.u.)= $0.198+32-26$ if E2.
2747.75	(2) ⁺	1208.19 17	32 5	1539.383	3 ⁺	M1+E2	+0.09 5	0.0002191 31	$\alpha(\text{K})=6.15\times 10^{-5}$ 9; $\alpha(\text{L})=6.21\times 10^{-6}$ 9; $\alpha(\text{M})=9.27\times 10^{-7}$ 13 $\alpha(\text{N})=6.14\times 10^{-8}$ 9; $\alpha(\text{IPF})=0.000350$ 5
		1639.31 5	100.0 24	1108.416	2 ⁺	M1(+E2)	-0.002 29	0.0002321 32	
		2185.02 19	8.5 7	562.917	2 ⁺	M1+E2		0.000442 31	
2766.68	2 ⁺	2203.71 6	100 4	562.917	2 ⁺	E2+M1	-0.09 2	0.000419 6	

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^{\ddagger}$	$I_\gamma^{\ddagger}$	E_f	J_f^π	Mult.#	$\delta^\#$	$\alpha^\dagger$	Comments
2766.68	2 ⁺	2766.65 8	2.7 8	0.0	0 ⁺	E2		0.000724 10	B(M1)(W.u.)=0.136 +23-17; B(E2)(W.u.)=0.31 +17-13 E $_\gamma$, I $_\gamma$: from (n,n' γ). δ : from (n,n' γ). α (K)=4.26 $\times 10^{-5}$ 6; α (L)=4.30 $\times 10^{-6}$ 6; α (M)=6.41 $\times 10^{-7}$ 9 α (N)=4.24 $\times 10^{-8}$ 6; α (IPF)=0.000676 9 B(E2)(W.u.)=0.33 +12-10 E $_\gamma$, I $_\gamma$: from (n,n' γ).
2768.73	2 ⁺	1358.9 6 1660.30 14	24 8 100 7	1409.982 4 ⁺ 1108.416 2 ⁺					
2841.61	2 ⁺	1732.97 16	100 4	1108.416 2 ⁺	E2+M1		+0.01 +3-2	0.000255 4	α (K)=9.49 $\times 10^{-5}$ 13; α (L)=9.60 $\times 10^{-6}$ 13; α (M)=1.433 $\times 10^{-6}$ 20 α (N)=9.48 $\times 10^{-8}$ 13; α (IPF)=0.0001494 21 B(M1)(W.u.)=0.100 +20-16; B(E2)(W.u.)<0.086 α (K)=5.87 $\times 10^{-5}$ 11; α (L)=5.93 $\times 10^{-6}$ 11; α (M)=8.84 $\times 10^{-7}$ 17 α (N)=5.85 $\times 10^{-8}$ 10; α (IPF)=0.000415 32 δ : +3.0 +9-5 or -0.08 6 (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.0230 +37-35 if M1, B(E2)(W.u.)=6.0 +10-9 if E2.
		2278.82 14	52 9	562.917 2 ⁺	E2+M1			0.000480 33	
2856.79	4 ⁺	1446.79 9	100	1409.982 4 ⁺	M1(+E2)		-0.08 8	0.0002012 28	α (K)=0.0001334 19; α (L)=1.351 $\times 10^{-5}$ 19; α (M)=2.017 $\times 10^{-6}$ 28 α (N)=1.334 $\times 10^{-7}$ 19; α (IPF)=5.22 $\times 10^{-5}$ 8 B(M1)(W.u.)=0.075 7; B(E2)(W.u.)<1.3
2897.55	0 ⁺	1789.23 13	38.1 19	1108.416 2 ⁺	E2			0.000314 4	α (K)=9.24 $\times 10^{-5}$ 13; α (L)=9.36 $\times 10^{-6}$ 13; α (M)=1.397 $\times 10^{-6}$ 20 α (N)=9.21 $\times 10^{-8}$ 13; α (IPF)=0.0002105 29 B(E2)(W.u.)=1.44 +25-23
		2334.51 11	100 4	562.917 2 ⁺	E2			0.000537 8	α (K)=5.69 $\times 10^{-5}$ 8; α (L)=5.75 $\times 10^{-6}$ 8; α (M)=8.58 $\times 10^{-7}$ 12 α (N)=5.67 $\times 10^{-8}$ 8; α (IPF)=0.000474 7 B(E2)(W.u.)=1.00 16
2919.74	1 ⁺	1811.22 18	14 5	1108.416 2 ⁺	M1+E2		-0.8 +63-6	0.000295 26	α (K)=8.86 $\times 10^{-5}$ 20; α (L)=8.96 $\times 10^{-6}$ 22; α (M)=1.338 $\times 10^{-6}$ 32 α (N)=8.84 $\times 10^{-8}$ 19; α (IPF)=0.000196 24 B(M1)(W.u.)=0.0015 +21-14; B(E2)(W.u.)<1.4
		2356.81 13	27.4 12	562.917 2 ⁺	M1+E2		+1.3 +50-9	0.000522 34	α (K)=5.55 $\times 10^{-5}$ 10; α (L)=5.60 $\times 10^{-6}$ 10; α (M)=8.36 $\times 10^{-7}$ 15 α (N)=5.53 $\times 10^{-8}$ 10; α (IPF)=0.000460 33 B(M1)(W.u.)=8 $\times 10^{-4}$ +11-6; B(E2)(W.u.)=0.32 +15-26
		2919.72 13	100 4	0.0	0 ⁺	M1		0.000705 10	α (K)=3.81 $\times 10^{-5}$ 5; α (L)=3.83 $\times 10^{-6}$ 5; α (M)=5.72 $\times 10^{-7}$ 8 α (N)=3.79 $\times 10^{-8}$ 5; α (IPF)=0.000662 9 B(M1)(W.u.)=0.00406 +44-37

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^{\ddagger}$	$I_\gamma^{\ddagger}$	E_f	J_f^π	Mult.#	$\delta^\#$	$\alpha^\dagger$	Comments
2958.06	5 ⁻	265.3 5	3.6 6	2692.347	3 ⁻	E2		0.01991 31	$\alpha(\text{K})=0.01768$ 27; $\alpha(\text{L})=0.001930$ 30; $\alpha(\text{M})=0.000287$ 4 $\alpha(\text{N})=1.745\times 10^{-5}$ 27
		1548.02 18	100 4	1409.982	4 ⁺	E1		0.000362 5	$\alpha(\text{K})=6.32\times 10^{-5}$ 9; $\alpha(\text{L})=6.37\times 10^{-6}$ 9; $\alpha(\text{M})=9.51\times 10^{-7}$ 13 $\alpha(\text{N})=6.26\times 10^{-8}$ 9; $\alpha(\text{IPF})=0.000291$ 4
2986.08	(2 ⁺ ,3 ⁺)	1576.02 8	23.2 14	1409.982	4 ⁺	[E2]		0.0002484 35	$\alpha(\text{K})=0.0001182$ 17; $\alpha(\text{L})=1.200\times 10^{-5}$ 17; $\alpha(\text{M})=1.791\times 10^{-6}$ 25 $\alpha(\text{N})=1.179\times 10^{-7}$ 16; $\alpha(\text{IPF})=0.0001163$ 16 B(E2)(W.u.)=5.7 +6-5
		1877.76 12	100 4	1108.416	2 ⁺	[M1,E2]		0.000323 24	$\alpha(\text{K})=8.32\times 10^{-5}$ 17; $\alpha(\text{L})=8.41\times 10^{-6}$ 18; $\alpha(\text{M})=1.255\times 10^{-6}$ 26 $\alpha(\text{N})=8.29\times 10^{-8}$ 16; $\alpha(\text{IPF})=0.000230$ 22 B(M1)(W.u.)=0.0270 +18-16 if M1, B(E2)(W.u.)=10.4 7 if E2.
2988.09		319.0 ^a 3	100	2669.12	3 ⁺ ,4 ⁺				
		500.9 ^a 4	8 3	2487.07	5 ⁺				
		534.4 ^a 4	25 10	2453.74	6 ⁺				
2993.89	4 ⁺	972.30 6	86.3 34	2021.68	4 ⁺	M1+E2	-0.61 +7-5	0.000342 5	$\alpha(\text{K})=0.000306$ 5; $\alpha(\text{L})=3.12\times 10^{-5}$ 5; $\alpha(\text{M})=4.66\times 10^{-6}$ 7 $\alpha(\text{N})=3.07\times 10^{-7}$ 5 B(M1)(W.u.)=0.0149 +32-30; B(E2)(W.u.)=7.9 +18-22 δ : -5.2 +75-36 or -0.08 +13-59 (2017Mu03) in (n,n' γ).
		1454.37 9	15.8 16	1539.383	3 ⁺	M1+E2		0.000213 12	$\alpha(\text{K})=0.000135$ 4; $\alpha(\text{L})=1.37\times 10^{-5}$ 4; $\alpha(\text{M})=2.05\times 10^{-6}$ 6 $\alpha(\text{N})=1.35\times 10^{-7}$ 4; $\alpha(\text{IPF})=6.2\times 10^{-5}$ 8 B(M1)(W.u.)=0.00111 25 if M1, B(E2)(W.u.)=0.71 16 if E2.
		2430.91 5	100 5	562.917	2 ⁺	E2		0.000579 8	$\alpha(\text{K})=5.31\times 10^{-5}$ 7; $\alpha(\text{L})=5.36\times 10^{-6}$ 7; $\alpha(\text{M})=7.99\times 10^{-7}$ 11 $\alpha(\text{N})=5.28\times 10^{-8}$ 7; $\alpha(\text{IPF})=0.000520$ 7 B(E2)(W.u.)=0.35 7
3004.73	(0) ⁺	2441.77 7	100	562.917	2 ⁺	E2		0.000584 8	$\alpha(\text{K})=5.27\times 10^{-5}$ 7; $\alpha(\text{L})=5.32\times 10^{-6}$ 7; $\alpha(\text{M})=7.93\times 10^{-7}$ 11 $\alpha(\text{N})=5.24\times 10^{-8}$ 7; $\alpha(\text{IPF})=0.000525$ 7 B(E2)(W.u.)=1.59 24
3007.16	1 ⁺	1898.73 6	100 4	1108.416	2 ⁺	M1(+E2)	-0.8 +18-7	0.000325 15	$\alpha(\text{K})=8.12\times 10^{-5}$ 13; $\alpha(\text{L})=8.21\times 10^{-6}$ 14; $\alpha(\text{M})=1.226\times 10^{-6}$ 21 $\alpha(\text{N})=8.10\times 10^{-8}$ 13; $\alpha(\text{IPF})=0.000234$ 14 B(M1)(W.u.)=0.07 +11-4; B(E2)(W.u.)<45

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^{\ddagger}$	$I_\gamma^{\ddagger}$	E_f	J_f^π	Mult.#	$\delta^\#$	$\alpha^\dagger$	Comments
3007.16	1 ⁺	3007.02 <i>13</i>	57.7 <i>29</i>	0.0	0 ⁺	M1		0.000739 <i>10</i>	$\alpha(\text{K})=3.63\times 10^{-5}$ <i>5</i> ; $\alpha(\text{L})=3.65\times 10^{-6}$ <i>5</i> ; $\alpha(\text{M})=5.45\times 10^{-7}$ <i>8</i> $\alpha(\text{N})=3.61\times 10^{-8}$ <i>5</i> ; $\alpha(\text{IPF})=0.000699$ <i>10</i> $\text{B}(\text{M1})(\text{W.u.})=0.016$ <i>+10-4</i>
3014.2	1	3014.1 <i>4</i>	100	0.0	0 ⁺				
3021.14	(2 ⁺ ,3 ⁺)	1481.73 <i>9</i>	78 <i>4</i>	1539.383	3 ⁺	[M1,E2]		0.000216 <i>13</i>	$\alpha(\text{K})=0.000131$ <i>4</i> ; $\alpha(\text{L})=1.32\times 10^{-5}$ <i>4</i> ; $\alpha(\text{M})=1.98\times 10^{-6}$ <i>6</i> $\alpha(\text{N})=1.304\times 10^{-7}$ <i>35</i> ; $\alpha(\text{IPF})=7.1\times 10^{-5}$ <i>9</i> $\text{B}(\text{M1})(\text{W.u.})=0.0073$ <i>9</i> if M1, $\text{B}(\text{E2})(\text{W.u.})=4.5$ <i>6</i> if E2.
		1611.36 <i>16</i>	33.5 <i>19</i>	1409.982	4 ⁺	[E2]		0.000258 <i>4</i>	$\alpha(\text{K})=0.0001131$ <i>16</i> ; $\alpha(\text{L})=1.148\times 10^{-5}$ <i>16</i> ; $\alpha(\text{M})=1.713\times 10^{-6}$ <i>24</i> $\alpha(\text{N})=1.128\times 10^{-7}$ <i>16</i> ; $\alpha(\text{IPF})=0.0001314$ <i>18</i> $\text{B}(\text{E2})(\text{W.u.})=1.27$ <i>17</i>
		1912.59 <i>13</i>	100 <i>4</i>	1108.416	2 ⁺	[M1,E2]		0.000335 <i>25</i>	$\alpha(\text{K})=8.04\times 10^{-5}$ <i>16</i> ; $\alpha(\text{L})=8.13\times 10^{-6}$ <i>17</i> ; $\alpha(\text{M})=1.213\times 10^{-6}$ <i>25</i> $\alpha(\text{N})=8.02\times 10^{-8}$ <i>15</i> ; $\alpha(\text{IPF})=0.000245$ <i>23</i> $\text{B}(\text{M1})(\text{W.u.})=0.0044$ <i>6</i> if M1, $\text{B}(\text{E2})(\text{W.u.})=1.60$ <i>20</i> if E2.
3033.75	(6 ⁺)	546.6 ^a <i>4</i>	20 <i>20</i>	2487.07	5 ⁺				
		580.1 ^a <i>4</i>	60 <i>15</i>	2453.74	6 ⁺	(M1+E2)	+1 <i>4</i>	0.00125 <i>23</i>	$\alpha(\text{K})=0.00111$ <i>21</i> ; $\alpha(\text{L})=0.000116$ <i>22</i> ; $\alpha(\text{M})=1.72\times 10^{-5}$ <i>33</i> $\alpha(\text{N})=1.12\times 10^{-6}$ <i>20</i>
		1012.2 ^a <i>4</i>	100	2021.68	4 ⁺				
		1623.8 ^a <i>4</i>	40 <i>15</i>	1409.982	4 ⁺				
3041.37	2 ⁺	1130.24		1911.12	0 ⁺				
		2478.8 <i>11</i>	100	562.917	2 ⁺	[M1,E2]		0.00056 <i>4</i>	$\alpha(\text{K})=5.07\times 10^{-5}$ <i>9</i> ; $\alpha(\text{L})=5.12\times 10^{-6}$ <i>9</i> ; $\alpha(\text{M})=7.64\times 10^{-7}$ <i>14</i> $\alpha(\text{N})=5.05\times 10^{-8}$ <i>9</i> ; $\alpha(\text{IPF})=0.00051$ <i>4</i> $\text{B}(\text{M1})(\text{W.u.})=0.0227$ <i>+16-14</i> if M1, $\text{B}(\text{E2})(\text{W.u.})=4.95$ <i>+35-31</i> if E2.
3052.55	2 ⁺ ,3 ⁺ ,4 ⁺	1513.15 <i>9</i>	100	1539.383	3 ⁺	M1+E2		0.000221 <i>14</i>	$\alpha(\text{K})=0.0001253$ <i>34</i> ; $\alpha(\text{L})=1.27\times 10^{-5}$ <i>4</i> ; $\alpha(\text{M})=1.90\times 10^{-6}$ <i>5</i> $\alpha(\text{N})=1.251\times 10^{-7}$ <i>32</i> ; $\alpha(\text{IPF})=8.1\times 10^{-5}$ <i>10</i> δ : -0.05 <i>+6-5</i> or $+1.64$ <i>2</i> (2017Mu03) in (n,n' γ). $\text{B}(\text{M1})(\text{W.u.})=0.182$ <i>+31-23</i> if M1, $\text{B}(\text{E2})(\text{W.u.})=107$ <i>+18-14</i> if E2.
3062.13	(4 ⁺ ,5 ⁺)	1652.13 <i>8</i>	100	1409.982	4 ⁺	[M1,E2]		0.000252 <i>18</i>	$\alpha(\text{K})=0.0001057$ <i>25</i> ; $\alpha(\text{L})=1.071\times 10^{-5}$ <i>26</i> ; $\alpha(\text{M})=1.60\times 10^{-6}$ <i>4</i> $\alpha(\text{N})=1.055\times 10^{-7}$ <i>24</i> ; $\alpha(\text{IPF})=0.000134$ <i>15</i> $\text{B}(\text{M1})(\text{W.u.})=0.040$ <i>+9-6</i> if M1, $\text{B}(\text{E2})(\text{W.u.})=19.7$ <i>+44-31</i> if E2.
3066.86	(2 ⁺ ,3 ⁺ ,4 ⁺)	1527.46 <i>9</i>	100	1539.383	3 ⁺	[M1,E2]		0.000224 <i>14</i>	$\alpha(\text{K})=0.0001230$ <i>33</i> ; $\alpha(\text{L})=1.248\times 10^{-5}$ <i>35</i> ; $\alpha(\text{M})=1.86\times 10^{-6}$ <i>5</i> $\alpha(\text{N})=1.228\times 10^{-7}$ <i>31</i> ; $\alpha(\text{IPF})=8.6\times 10^{-5}$ <i>10</i> $\text{B}(\text{M1})(\text{W.u.})=0.0069$ <i>+31-26</i> if M1, $\text{B}(\text{E2})(\text{W.u.})=4.0$ <i>+18-15</i> if E2.
3070.41	4 ⁺	1660.41 <i>10</i>	100	1409.982	4 ⁺	M1+E2		0.000254 <i>18</i>	$\alpha(\text{K})=0.0001047$ <i>24</i> ; $\alpha(\text{L})=1.061\times 10^{-5}$ <i>26</i> ; $\alpha(\text{M})=1.58\times 10^{-6}$ <i>4</i> $\alpha(\text{N})=1.045\times 10^{-7}$ <i>23</i> ; $\alpha(\text{IPF})=0.000137$ <i>15</i>

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$ (continued)							
$E_i(\text{level})$	J_i^π	$E_\gamma^{\ddagger}$	$I_\gamma^{\ddagger}$	E_f	J_f^π	Mult.#	$\alpha^\ddagger$
							Comments
							δ : -0.13 ± 8 or $+1.5 \pm 3$ (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.0063 $+25-23$ if M1, B(E2)(W.u.)=3.1 $+12-11$ if E2.
3088.4	1	3088.3 ± 7	100	0.0	0 ⁺		
3092.10	(3 ⁺ ,5 ⁺)	1682.10 ± 9	100	1409.982	4 ⁺	[M1,E2]	0.000260 ± 18
							$\alpha(\text{K})=0.0001022 \pm 23$; $\alpha(\text{L})=1.035 \times 10^{-5} \pm 25$; $\alpha(\text{M})=1.54 \times 10^{-6} \pm 4$ $\alpha(\text{N})=1.020 \times 10^{-7} \pm 22$; $\alpha(\text{IPF})=0.000146 \pm 16$ B(M1)(W.u.)=0.0173 ± 24 if M1, B(E2)(W.u.)=8.2 ± 11 if E2.
3129.86	2 ⁺	2022.4 ± 9	100 ± 4	1108.416	2 ⁺	M1+E2	0.000377 ± 27
							$\alpha(\text{K})=7.26 \times 10^{-5} \pm 14$; $\alpha(\text{L})=7.34 \times 10^{-6} \pm 15$; $\alpha(\text{M})=1.095 \times 10^{-6} \pm 22$ $\alpha(\text{N})=7.24 \times 10^{-8} \pm 13$; $\alpha(\text{IPF})=0.000296 \pm 26$
							δ : $-0.31 \pm 5-6$ or $+10 \pm 11-3$ (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.0092 $\pm 10-9$ if M1, B(E2)(W.u.)=3.03 $\pm 34-29$ if E2.
		3129.78 ± 8	17.8 ± 11	0.0	0 ⁺	E2	0.000874 ± 12
							$\alpha(\text{K})=3.48 \times 10^{-5} \pm 5$; $\alpha(\text{L})=3.51 \times 10^{-6} \pm 5$; $\alpha(\text{M})=5.23 \times 10^{-7} \pm 7$ $\alpha(\text{N})=3.46 \times 10^{-8} \pm 5$; $\alpha(\text{IPF})=0.000835 \pm 12$ B(E2)(W.u.)=0.061 $\pm 8-7$
3141.39	1 ⁺	1230.2 ± 5 @d		1911.12	0 ⁺		
		2578.48 ± 8	58 ± 6	562.917	2 ⁺	M1+E2	0.00061 ± 4
							$\alpha(\text{K})=4.74 \times 10^{-5} \pm 9$; $\alpha(\text{L})=4.78 \times 10^{-6} \pm 9$; $\alpha(\text{M})=7.14 \times 10^{-7} \pm 13$ $\alpha(\text{N})=4.72 \times 10^{-8} \pm 8$; $\alpha(\text{IPF})=0.00055 \pm 4$
							δ : $+0.7 \pm 150-10$ or $+3 \pm 13-3$ (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.00396 $\pm 44-51$ if M1, B(E2)(W.u.)=0.80 $\pm 9-10$ if E2.
		3141.24 ± 8	100.0 ± 18	0.0	0 ⁺	M1	0.000791 ± 11
							B(M1)(W.u.)=0.00378 $\pm 39-43$ $\alpha(\text{K})=3.38 \times 10^{-5} \pm 5$; $\alpha(\text{L})=3.40 \times 10^{-6} \pm 5$; $\alpha(\text{M})=5.07 \times 10^{-7} \pm 7$ $\alpha(\text{N})=3.36 \times 10^{-8} \pm 5$; $\alpha(\text{IPF})=0.000754 \pm 11$
3147.54	(2 ⁺)	1608.29 ± 13	100.0 ± 21	1539.383	3 ⁺	[M1,E2]	0.000241 ± 16
							$\alpha(\text{K})=0.0001113 \pm 27$; $\alpha(\text{L})=1.128 \times 10^{-5} \pm 29$; $\alpha(\text{M})=1.68 \times 10^{-6} \pm 4$ $\alpha(\text{N})=1.111 \times 10^{-7} \pm 26$; $\alpha(\text{IPF})=0.000117 \pm 13$
							B(M1)(W.u.)=0.0284 $\pm 35-29$ if M1, B(E2)(W.u.)=14.8 $\pm 18-15$ if E2.
		2038.2 ± 7	13.3 ± 16	1108.416	2 ⁺	[M1,E2]	0.000383 ± 28
							$\alpha(\text{K})=7.16 \times 10^{-5} \pm 14$; $\alpha(\text{L})=7.24 \times 10^{-6} \pm 14$; $\alpha(\text{M})=1.080 \times 10^{-6} \pm 21$ $\alpha(\text{N})=7.14 \times 10^{-8} \pm 13$; $\alpha(\text{IPF})=0.000303 \pm 26$
							B(M1)(W.u.)=0.00186 $\pm 31-27$ if M1, B(E2)(W.u.)=0.60 $\pm 10-9$ if E2.
		2584.41 ± 15	44.7 ± 19	562.917	2 ⁺	[M1,E2]	0.00061 ± 4
							$\alpha(\text{K})=4.72 \times 10^{-5} \pm 9$; $\alpha(\text{L})=4.76 \times 10^{-6} \pm 9$; $\alpha(\text{M})=7.11 \times 10^{-7} \pm 13$ $\alpha(\text{N})=4.70 \times 10^{-8} \pm 8$; $\alpha(\text{IPF})=0.00056 \pm 4$
							B(M1)(W.u.)=0.00306 $\pm 39-33$ if M1, B(E2)(W.u.)=0.62 $\pm 8-7$ if E2.
3162.65	(4 ⁺)	1752.65 ± 5	100	1409.982	4 ⁺	E2+M1	0.000281 ± 21
							$\alpha(\text{K})=9.45 \times 10^{-5} \pm 21$; $\alpha(\text{L})=9.57 \times 10^{-6} \pm 22$; $\alpha(\text{M})=1.428 \times 10^{-6} \pm 32$ $\alpha(\text{N})=9.43 \times 10^{-8} \pm 20$; $\alpha(\text{IPF})=0.000175 \pm 19$
							δ : -0.09 ± 9 or $+1.4 \pm 3$ (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.280 $\pm 47-35$ if M1, B(E2)(W.u.)=123 $\pm 21-15$ if E2.
3181.95	(2 ⁺ ,3 ⁺)	489.73 ± 9	33.5 ± 26	2692.347	3 ⁻	[E1]	0.000741 ± 10
							$\alpha(\text{K})=0.000662 \pm 9$; $\alpha(\text{L})=6.76 \times 10^{-5} \pm 9$; $\alpha(\text{M})=1.007 \times 10^{-5} \pm 14$ $\alpha(\text{N})=6.54 \times 10^{-7} \pm 9$
							B(E1)(W.u.)=0.0014 $\pm 6-5$
		2618.93 ± 6	100 ± 5	562.917	2 ⁺	[M1,E2]	0.00062 ± 4
							$\alpha(\text{K})=4.62 \times 10^{-5} \pm 8$; $\alpha(\text{L})=4.66 \times 10^{-6} \pm 9$; $\alpha(\text{M})=6.95 \times 10^{-7} \pm 13$ $\alpha(\text{N})=4.60 \times 10^{-8} \pm 8$; $\alpha(\text{IPF})=0.00057 \pm 4$ B(M1)(W.u.)=0.0016 $\pm 7-6$ if M1, B(E2)(W.u.)=0.31 $\pm 13-12$ if E2.

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^{\ddagger}$	$I_\gamma^{\ddagger}$	E_f	J_f^π	Mult.#	$\delta^\#$	$\alpha^\dagger$	Comments
3182.19	(2 ⁺)	1642.80 <i>15</i>	22 2	1539.383	3 ⁺	[M1,E2]		0.000250 <i>17</i>	$\alpha(\text{K})=0.0001069$ 25; $\alpha(\text{L})=1.083\times 10^{-5}$ 27; $\alpha(\text{M})=1.62\times 10^{-6}$ 4 $\alpha(\text{N})=1.067\times 10^{-7}$ 24; $\alpha(\text{IPF})=0.000130$ 15 B(M1)(W.u.)=0.0025 +21-13 if M1, B(E2)(W.u.)=1.2 +11-6 if E2.
		2073.75 7	100 3	1108.416	2 ⁺	[M1,E2]		0.000397 28	$\alpha(\text{K})=6.94\times 10^{-5}$ 13; $\alpha(\text{L})=7.01\times 10^{-6}$ 14; $\alpha(\text{M})=1.047\times 10^{-6}$ 20 $\alpha(\text{N})=6.92\times 10^{-8}$ 13; $\alpha(\text{IPF})=0.000319$ 27 B(M1)(W.u.)=0.0056 +47-28 if M1, B(E2)(W.u.)=1.8 +15-9 if E2.
		2619.20 <i>10</i>	53	562.917	2 ⁺	[M1,E2]		0.00062 4	$\alpha(\text{K})=4.62\times 10^{-5}$ 8; $\alpha(\text{L})=4.66\times 10^{-6}$ 9; $\alpha(\text{M})=6.95\times 10^{-7}$ 13 $\alpha(\text{N})=4.60\times 10^{-8}$ 8; $\alpha(\text{IPF})=0.00057$ 4 B(M1)(W.u.)=0.0015 +12-8 if M1, B(E2)(W.u.)=0.29 +24-15 if E2.
3191.05	2 ⁺	2082.51 9	34.2 25	1108.416	2 ⁺	M1+E2		0.000400 29	$\alpha(\text{K})=6.89\times 10^{-5}$ 13; $\alpha(\text{L})=6.96\times 10^{-6}$ 14; $\alpha(\text{M})=1.039\times 10^{-6}$ 20 $\alpha(\text{N})=6.87\times 10^{-8}$ 13; $\alpha(\text{IPF})=0.000324$ 27 δ : -3 +13-3 or -1 +20-1 (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.0044 +6-5 if M1, B(E2)(W.u.)=1.36 +19-16 if E2.
		2628.08 <i>12</i>	100 4	562.917	2 ⁺	M1+E2		0.00063 4	$\alpha(\text{K})=4.59\times 10^{-5}$ 8; $\alpha(\text{L})=4.63\times 10^{-6}$ 9; $\alpha(\text{M})=6.91\times 10^{-7}$ 13 $\alpha(\text{N})=4.57\times 10^{-8}$ 8; $\alpha(\text{IPF})=0.00058$ 4 δ : +0.36 +21-10 or +1.03 +25-81 (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.0064 +8-7 if M1, B(E2)(W.u.)=1.25 +16-13 if E2.
		3190.99 4	13.8 <i>13</i>	0.0	0 ⁺	E2		0.000898 <i>13</i>	$\alpha(\text{K})=3.37\times 10^{-5}$ 5; $\alpha(\text{L})=3.40\times 10^{-6}$ 5; $\alpha(\text{M})=5.07\times 10^{-7}$ 7 $\alpha(\text{N})=3.35\times 10^{-8}$ 5; $\alpha(\text{IPF})=0.000860$ 12 B(E2)(W.u.)=0.065 +10-9
3200.01	(3) ⁺	2091.67 <i>14</i>	82 4	1108.416	2 ⁺	M1+E2		0.000404 29	$\alpha(\text{K})=6.83\times 10^{-5}$ 13; $\alpha(\text{L})=6.90\times 10^{-6}$ 13; $\alpha(\text{M})=1.030\times 10^{-6}$ 20 $\alpha(\text{N})=6.81\times 10^{-8}$ 12; $\alpha(\text{IPF})=0.000328$ 28 δ : +0.05 +9-1 or -7 +14-3 (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.0016 +13-8 if M1, B(E2)(W.u.)=0.48 +38-24 if E2.
		2636.64 27	100 4	562.917	2 ⁺	M1+E2		0.00063 4	$\alpha(\text{K})=4.57\times 10^{-5}$ 8; $\alpha(\text{L})=4.60\times 10^{-6}$ 8; $\alpha(\text{M})=6.87\times 10^{-7}$ 13 $\alpha(\text{N})=4.55\times 10^{-8}$ 8; $\alpha(\text{IPF})=0.00058$ 4 δ : -8 +13-3 or +0.08 8 in (n,n' γ). B(M1)(W.u.)=9 $\times 10^{-4}$ +8-5 if M1, B(E2)(W.u.)=0.18 +15-9 if E2.
3200.07	(1,2 ⁺)	3200.0 2		0.0	0 ⁺				
3231.8	4 ⁺	2668.8 ^{&d} 4	100	562.917	2 ⁺				
3236.02	(5) ⁺	782.1 ^a 4		2453.74	6 ⁺				I_γ : I(782.1 γ)/I(1826 γ)=100/40 in (^{76}Ge , $^{76}\text{Ge}'$).

Adopted Levels, Gammas (continued)

<u>$\gamma(^{76}\text{Ge})$ (continued)</u>									
<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>$E_\gamma^{\ddagger}$</u>	<u>$I_\gamma^{\ddagger}$</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult. #</u>	<u>$\delta^\#$</u>	<u>$\alpha^\dagger$</u>	<u>Comments</u>
3236.02	(5) ⁺	1214.23 11	85 4	2021.68	4 ⁺	M1+E2	+2.2 +31-18	0.000235 15	$\alpha(\text{K})=0.000201$ 11; $\alpha(\text{L})=2.05\times 10^{-5}$ 12; $\alpha(\text{M})=3.05\times 10^{-6}$ 18 $\alpha(\text{N})=2.00\times 10^{-7}$ 11; $\alpha(\text{IPF})=1.03\times 10^{-5}$ 20 B(M1)(W.u.)<0.13; B(E2)(W.u.)=140 +26-96
		1826.15 12	100 4	1409.982	4 ⁺	M1+E2		0.000305 23	$\alpha(\text{K})=8.76\times 10^{-5}$ 18; $\alpha(\text{L})=8.86\times 10^{-6}$ 19; $\alpha(\text{M})=1.322\times 10^{-6}$ 29 $\alpha(\text{N})=8.73\times 10^{-8}$ 17; $\alpha(\text{IPF})=0.000207$ 21 δ : +0.48 +13-20 or +1.9 +10-17 (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.064 7 if M1, B(E2)(W.u.)=25.8 28 if E2.
3243.79	1 ⁺	2680.90 10	100 5	562.917	2 ⁺	M1+E2		0.00065 4	$\alpha(\text{K})=4.44\times 10^{-5}$ 8; $\alpha(\text{L})=4.48\times 10^{-6}$ 8; $\alpha(\text{M})=6.68\times 10^{-7}$ 12 $\alpha(\text{N})=4.42\times 10^{-8}$ 8; $\alpha(\text{IPF})=0.00060$ 4 δ : -4 +60-2 or +0.04 2 (2017Mu03) in (n,n' γ). B(M1)(W.u.)=0.0239 +18-20 if M1, B(E2)(W.u.)=4.47 +33-37 if E2.
		3243.66 9	16.8 12	0.0	0 ⁺	M1		0.000830 12	$\alpha(\text{K})=3.20\times 10^{-5}$ 4; $\alpha(\text{L})=3.22\times 10^{-6}$ 5; $\alpha(\text{M})=4.81\times 10^{-7}$ 7 $\alpha(\text{N})=3.19\times 10^{-8}$ 4; $\alpha(\text{IPF})=0.000795$ 11 B(M1)(W.u.)=0.00226 24
3312.29	3 ⁻	1902.2 2	31 3	1409.982	4 ⁺				
		2203.86 16	100 8	1108.416	2 ⁺				
3322.80	(2 ⁺)	1912.7 1	26 2	1409.982	4 ⁺	[E2]		0.000359 5	$\alpha(\text{K})=8.15\times 10^{-5}$ 11; $\alpha(\text{L})=8.25\times 10^{-6}$ 12; $\alpha(\text{M})=1.232\times 10^{-6}$ 17 $\alpha(\text{N})=8.12\times 10^{-8}$ 11; $\alpha(\text{IPF})=0.000268$ 4 B(E2)(W.u.)=1.1 +7-5
		2214.36 8	100 3	1108.416	2 ⁺	[M1,E2]		0.000454 32	$\alpha(\text{K})=6.18\times 10^{-5}$ 11; $\alpha(\text{L})=6.23\times 10^{-6}$ 12; $\alpha(\text{M})=9.31\times 10^{-7}$ 18 $\alpha(\text{N})=6.15\times 10^{-8}$ 11; $\alpha(\text{IPF})=0.000385$ 31 B(M1)(W.u.)=0.0072 +45-31 if M1, B(E2)(W.u.)=2.0 +12-9 if E2.
		2759.95 14	49 3	562.917	2 ⁺	[M1,E2]		0.00068 4	$\alpha(\text{K})=4.23\times 10^{-5}$ 8; $\alpha(\text{L})=4.26\times 10^{-6}$ 8; $\alpha(\text{M})=6.36\times 10^{-7}$ 12 $\alpha(\text{N})=4.21\times 10^{-8}$ 7; $\alpha(\text{IPF})=0.00063$ 4 B(M1)(W.u.)=0.0018 +12-8 if M1, B(E2)(W.u.)=0.32 +20-14 if E2.
3409.19	(1,2,3)	661.4 ^d 2	100	2747.75	(2) ⁺				
3419.47	1 ⁺	2310.9		1108.416	2 ⁺				
		2856.4		562.917	2 ⁺				
		3419.7 6		0.0	0 ⁺	M1		0.000896 13	$\alpha(\text{K})=2.94\times 10^{-5}$ 4; $\alpha(\text{L})=2.96\times 10^{-6}$ 4; $\alpha(\text{M})=4.42\times 10^{-7}$ 6 $\alpha(\text{N})=2.93\times 10^{-8}$ 4; $\alpha(\text{IPF})=0.000863$ 12

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^{\ddagger}$	$I_\gamma^{\ddagger}$	E_f	J_f^π	Mult. #	$\alpha^\dagger$	Comments
3436.9		767.8 ⁴	100	2669.12	3 ⁺ , 4 ⁺			
3477.62	(2 ⁺ , 3)	335.9 ^d ⁵	100 25	3141.39	1 ⁺			
		2369.8 ^d ⁶	5 2	1108.416	2 ⁺			
		2914.6 ^d ²	14 2	562.917	2 ⁺			
3484.0	3 ⁻	2074 ¹		1409.982	4 ⁺			
		2921 ¹		562.917	2 ⁺			
3532.81	(7 ⁺)	499.1 ^{ad} ⁴	20 20	3033.75	(6 ⁺)			
		1045.7 ^a ⁴	100	2487.07	5 ⁺			
3536.0		547.9 ⁴	100	2988.09				
3543.27	8 ⁺	1089.6 ⁴	100	2453.74	6 ⁺			
3576.96		2037.5 ^d		1539.383	3 ⁺			
		3014.0 ^a ³		562.917	2 ⁺			
3596.79	2 ⁺	3033.8		562.917	2 ⁺			
		3596.7 ⁴		0.0	0 ⁺	E2	1.05×10 ⁻³ 2	$\alpha(\text{K})=2.79\times 10^{-5}$ 4; $\alpha(\text{L})=2.81\times 10^{-6}$ 4; $\alpha(\text{M})=4.19\times 10^{-7}$ 6 $\alpha(\text{N})=2.77\times 10^{-8}$ 4; $\alpha(\text{IPF})=0.001018$ 14 E_γ : poor fit; level-energy difference=1611.6.
3632.92	(2 ⁺)	1612.7 ^b ³	49 7	2021.68	4 ⁺			
		1721.9 ⁷	16 5	1911.12	0 ⁺			
		2524.0 ²	86 6	1108.416	2 ⁺			
		3069.90 ¹³	100 6	562.917	2 ⁺			
3680.70	1 ⁻	3117.7		562.917	2 ⁺			
		3680.6 ¹		0.0	0 ⁺	E1	1.57×10 ⁻³ 2	$\alpha(\text{K})=1.830\times 10^{-5}$ 26; $\alpha(\text{L})=1.835\times 10^{-6}$ 26; $\alpha(\text{M})=2.74\times 10^{-7}$ 4 $\alpha(\text{N})=1.809\times 10^{-8}$ 25; $\alpha(\text{IPF})=0.001545$ 22
3727.83	(7 ⁻)	769.5 ^a ⁴	30 20	2958.06	5 ⁻			
		1274.3 ^a ⁴	100	2453.74	6 ⁺	(E1+M2)	0.0001977 34	$\alpha(\text{K})=9.04\times 10^{-5}$ 29; $\alpha(\text{L})=9.14\times 10^{-6}$ 30; $\alpha(\text{M})=1.36\times 10^{-6}$ 5 $\alpha(\text{N})=8.96\times 10^{-8}$ 30; $\alpha(\text{IPF})=9.68\times 10^{-5}$ 17 δ : +9 7 or +0.2 6.
3763.40	1 ⁺	2655.0		1108.416	2 ⁺			
		3200.3		562.917	2 ⁺			
		3763.3 ²		0.0	0 ⁺	M1	1.02×10 ⁻³ 1	$\alpha(\text{K})=2.531\times 10^{-5}$ 35; $\alpha(\text{L})=2.54\times 10^{-6}$ 4; $\alpha(\text{M})=3.80\times 10^{-7}$ 5 $\alpha(\text{N})=2.517\times 10^{-8}$ 35; $\alpha(\text{IPF})=0.000991$ 14
3783.57	(4 ⁺ , 5, 6, 7 ⁻)	750.0 ^a ⁴	100	3033.75	(6 ⁺)			
		825.3 ^a ⁴	25 20	2958.06	5 ⁻			
3886.97	(3 ⁻)	2347.40 ²⁵	55 6	1539.383	3 ⁺			
		2476.60 ⁴⁰	27 6	1409.982	4 ⁺			
		2779.1 ⁴	100 10	1108.416	2 ⁺			
		3325.2 ¹²	14 7	562.917	2 ⁺			
3951.88	1 ⁻	1259.9 ⁵	7 2	2692.347	3 ⁻	[E2]	0.0002292 32	B(E2)(W.u.)=10.6 +39-33 $\alpha(\text{K})=0.0001877$ 26; $\alpha(\text{L})=1.914\times 10^{-5}$ 27; $\alpha(\text{M})=2.86\times 10^{-6}$

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^{\ddagger}$	$I_\gamma^{\ddagger}$	E_f	J_f^π	Mult. #	$\alpha^\dagger$	Comments
3951.88	1 ⁻	2040.70 25	8 2	1911.12	0 ⁺	[E1]	0.000707 10	⁴ $\alpha(\text{N})=1.873\times 10^{-7}$ 26; $\alpha(\text{IPF})=1.929\times 10^{-5}$ 29 B(E1)(W.u.)= 5.8×10^{-5} +20-16 $\alpha(\text{K})=4.11\times 10^{-5}$ 6; $\alpha(\text{L})=4.14\times 10^{-6}$ 6; $\alpha(\text{M})=6.17\times 10^{-7}$ 9 $\alpha(\text{N})=4.07\times 10^{-8}$ 6; $\alpha(\text{IPF})=0.000661$ 9 I_γ : preliminary result in 2014Do08 suggests ≈ 11 .
		2843.50 9	38 2	1108.416	2 ⁺	[E1]	1.18×10^{-3} 2	B(E1)(W.u.)= 1.01×10^{-4} +23-16 $\alpha(\text{K})=2.57\times 10^{-5}$ 4; $\alpha(\text{L})=2.58\times 10^{-6}$ 4; $\alpha(\text{M})=3.85\times 10^{-7}$ 5 $\alpha(\text{N})=2.54\times 10^{-8}$ 4; $\alpha(\text{IPF})=0.001150$ 16
		3388.75 12	67 4	562.917	2 ⁺	[E1]	1.45×10^{-3} 2	B(E1)(W.u.)= 1.05×10^{-4} +24-17 $\alpha(\text{K})=2.035\times 10^{-5}$ 28; $\alpha(\text{L})=2.042\times 10^{-6}$ 29; $\alpha(\text{M})=3.05\times 10^{-7}$ 4 $\alpha(\text{N})=2.013\times 10^{-8}$ 28; $\alpha(\text{IPF})=0.001424$ 20
		3951.70 14	100 8	0.0	0 ⁺	[E1]	1.68×10^{-3} 2	B(E1)(W.u.)= 9.9×10^{-5} +22-16 $\alpha(\text{K})=1.672\times 10^{-5}$ 23; $\alpha(\text{L})=1.676\times 10^{-6}$ 23; $\alpha(\text{M})=2.500\times 10^{-7}$ 35 $\alpha(\text{N})=1.653\times 10^{-8}$ 23; $\alpha(\text{IPF})=0.001661$ 23
4024.11	1 ⁽⁻⁾	4024.0 2	100	0.0	0 ⁺	(E1)	1.71×10^{-3} 2	$\alpha(\text{K})=1.634\times 10^{-5}$ 23; $\alpha(\text{L})=1.638\times 10^{-6}$ 23; $\alpha(\text{M})=2.443\times 10^{-7}$ 34 $\alpha(\text{N})=1.616\times 10^{-8}$ 23; $\alpha(\text{IPF})=0.001688$ 24
4035.12	1	4035.0 2	100	0.0	0 ⁺			
4116.02	1	4115.9 2		0.0	0 ⁺			
4122.28?	(1,2 ⁺)	3559.5 ^d 4	100 8	562.917	2 ⁺			
		4121.8 ^d 5	43 6	0.0	0 ⁺			
4129.8	8 ⁺	1096.0 ^a 4	100	3033.75	(6 ⁺)			
4130.6		894.6 ^a 4	100	3236.02	(5) ⁺			
4192.80?	(2 ⁺ ,3)	1273.05 ^d 10	100 6	2919.74	1 ⁺			
		2782.70 ^d 40	84 7	1409.982	4 ⁺			
4239.36	(1,2,3)	927.05 ^d 10	100 6	3312.29	3 ⁻			
		3130.7 ^d 6	23 5	1108.416	2 ⁺			
4250.93	1	4250.8 3		0.0	0 ⁺			
4311.1		775.1 ^a 4	70 20	3536.0				
		1323.0 ^a 4	100	2988.09				
4326.43	(1,2,3)	1014.2 ^d 2	31 5	3312.29	3 ⁻			
		1634.0 ^d 2	100 5	2692.347	3 ⁻			
4331.3	1	4331.2 12	100	0.0	0 ⁺			
4363.47	4 ⁺	885.83 ^d 10	100 8	3477.62	(2 ⁺ ,3)			
		1443.9 ^d 5	20 5	2919.74	1 ⁺	[M3]	0.000548 8	$\alpha(\text{K})=0.000483$ 7; $\alpha(\text{L})=5.01\times 10^{-5}$ 7; $\alpha(\text{M})=7.50\times 10^{-6}$ 11 $\alpha(\text{N})=4.94\times 10^{-7}$ 7; $\alpha(\text{IPF})=6.52\times 10^{-6}$ 9

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ ‡	I_γ ‡	E_f	J_f^π	Mult. $^\#$	α †	Comments
E_γ : this γ from $J^\pi=4^+$ to $J=1$ requiring high multipolarity is questionable.								
4476.67?	(≤ 4)	843.8 d 2	100 10	3632.92	(2^+)			
		3913.3 d 5	11 3	562.917	2^+			
4546.8	9^+	1014.0 4	100	3532.81	(7^+)			
4613.0	10^+	1069.7 a 4	100	3543.27	8^+			
4623.7	1^+	4623.5 11		0.0	0^+	M1	1.30×10^{-3} 2	$\alpha(\text{K})=1.849 \times 10^{-5}$ 26; $\alpha(\text{L})=1.857 \times 10^{-6}$ 26; $\alpha(\text{M})=2.77 \times 10^{-7}$ 4 $\alpha(\text{N})=1.837 \times 10^{-8}$ 26; $\alpha(\text{IPF})=0.001275$ 18
4661.2	1	4661.0 4		0.0	0^+			
4678.26	1	4678.1 1		0.0	0^+			
4686.8	(9^-)	958.9 a 4	100	3727.83	(7^-)			
		1143.6 a 4	40 30	3543.27	8^+			
4719.88	($2^+, 3, 4^+$)	1310.6 d 3	75 13	3409.19	(1,2,3)			
		1878.3 2	98 11	2841.61	2^+			
		2435.6 3	100 13	2284.22	(3^-)			
4720.5		936.9 4	100	3783.57	($4^+, 5, 6, 7^-$)			
		992.7 d 4	5 5	3727.83	(7^-)			
4722.36	(1)	4722.2 2		0.0	0^+			
4741.16		4741.0 2		0.0	0^+			
4784.04?	(1,2,3)	1461.2 d 3	74 15	3322.80	(2^+)			
		3675.60 d 45	100 11	1108.416	2^+			
4789.06		4788.9 3		0.0	0^+			
4812.47?	($2^+, 3$)	1892.7 d 2	100 7	2919.74	1^+			
		3402.4 d 3	33 5	1409.982	4^+			
4814.92?	(1,2,3)	1182.1 d 3	100 15	3632.92	(2^+)			
		1502.3 d 5	96 13	3312.29	3^-			
4837.2	(1)	4837.0 4		0.0	0^+			
4846.07	1	4845.9 3		0.0	0^+			
4874.67		4874.5 2		0.0	0^+			
4917.2	1	4917.0 6		0.0	0^+			
4936.07	1	4935.9 2		0.0	0^+			
5116.59	1	5116.4 2		0.0	0^+			
5122.47	(1,2,3)	1489.6 4	34 10	3632.92	(2^+)			
		1940.30 14	100 7	3182.19	(2^+)			
		1980.4 5	32 6	3141.39	1^+			
5166.89	(1)	5166.7 2		0.0	0^+			
5185.99	(1)	5185.8 1		0.0	0^+			
5202.49	1	5202.3 2		0.0	0^+			

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^{\ddagger}$	$I_\gamma^{\ddagger}$	E_f	J_f^π	Mult. #	$\alpha^\dagger$	Comments
5222.19		5222.0 3		0.0	0 ⁺			
5267.00	1	5266.8 3		0.0	0 ⁺			
5273.8	(1)	5273.6 6		0.0	0 ⁺			
5285.10	1	5284.9 2		0.0	0 ⁺			
5304.30	1	5304.1 3		0.0	0 ⁺			
5365.80	1	5365.6 3		0.0	0 ⁺			
5379.7	1	5379.5 4		0.0	0 ⁺			
5390.8	(1)	5390.6 5		0.0	0 ⁺			
5418.8	(1)	5418.6 4		0.0	0 ⁺			
5434.51	1	5434.3 3		0.0	0 ⁺			
5450.0?	(12 ⁺)	837.0 ^{ad} 4	100	4613.0	10 ⁺			
5522.58	(1,2,3)	1282.9 ^{cd} 4	<81 ^c	4239.36	(1,2,3)			
		2680.9 3	92 10	2841.61	2 ⁺			
		2868.1 2	100 14	2654.51	(0 ⁺ ,1 ⁺)			
5540.42	1	5540.2 2	100	0.0	0 ⁺			
5567.62	(1)	5567.4 2		0.0	0 ⁺			
5579.0	1	5578.8 5		0.0	0 ⁺			
5626.7	1	5626.5 8	100	0.0	0 ⁺			
5663.32	(2 ⁺)	2481.1 4	50 10	3182.19	(2 ⁺)			
		2970.90 15	100 12	2692.347	3 ⁻			
		3752.10 50	42 9	1911.12	0 ⁺			
		4253.3 5	57 9	1409.982	4 ⁺			
5665.43	1	5665.2 3		0.0	0 ⁺			
5677.83	1	5677.6 3		0.0	0 ⁺			
5699.03	1 ⁻	5698.8 2	100	0.0	0 ⁺	E1	2.23×10 ⁻³ 3	$\alpha(\text{K})=1.069\times 10^{-5}$ 15; $\alpha(\text{L})=1.070\times 10^{-6}$ 15; $\alpha(\text{M})=1.597\times 10^{-7}$ 22 $\alpha(\text{N})=1.057\times 10^{-8}$ 15; $\alpha(\text{IPF})=0.002215$ 31
5708.6	(1)	5708.4 6		0.0	0 ⁺			
5748.53	1 ⁻	5748.3 1	100	0.0	0 ⁺	E1	2.24×10 ⁻³ 3	$\alpha(\text{K})=1.058\times 10^{-5}$ 15; $\alpha(\text{L})=1.059\times 10^{-6}$ 15; $\alpha(\text{M})=1.580\times 10^{-7}$ 22 $\alpha(\text{N})=1.046\times 10^{-8}$ 15; $\alpha(\text{IPF})=0.002227$ 31
5749.90?	(1,2,3)	2981.2 ^d 4	100 20	2768.73	2 ⁺			
		3465.5 ^d 4	68 13	2284.22	(3) ⁻			
5785.24	1	5785.0 2		0.0	0 ⁺			
5794.34	1	5794.1 2		0.0	0 ⁺			
5821.0		5820.8 6		0.0	0 ⁺			
5825.5	1	5825.3 8		0.0	0 ⁺			
5843.2	(11 ⁻)	1156.4 ^a 4	100	4686.8	(9 ⁻)			
5846.7		5846.5 7		0.0	0 ⁺			
5865.0		5864.8 6		0.0	0 ⁺			
5882.92?	(1,2,3)	2700.5 ^d 4	94 16	3182.19	(2 ⁺)			

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^{\ddagger}$	$I_\gamma^{\ddagger}$	E_f	J_f^π	Mult.#	$\alpha^\dagger$	Comments
5882.92?	(1,2,3)	3190.6 ^d 3	100 13	2692.347	3 ⁻			
5909.05		5908.8 3		0.0	0 ⁺			
5955.9	1	5955.6 8	100	0.0	0 ⁺			
5983.25	1 ⁻	5983.0 2	100	0.0	0 ⁺	E1	2.30×10^{-3} 3	$\alpha(\text{K})=1.009 \times 10^{-5}$ 14; $\alpha(\text{L})=1.010 \times 10^{-6}$ 14; $\alpha(\text{M})=1.507 \times 10^{-7}$ 21 $\alpha(\text{N})=9.98 \times 10^{-9}$ 14; $\alpha(\text{IPF})=0.002285$ 32
6021.13?	(1,2,3)	3328.7 ^d 8	100 30	2692.347	3 ⁻			
		3366.5 ^d 3	73 14	2654.51	(0 ⁺ ,1 ⁺)			
		3736.90 ^d 45	80 20	2284.22	(3) ⁻			
6048.7	1	6048.4 4		0.0	0 ⁺			
6065.1?	(1,2,3)	2882.9 ^d 9	47 16	3182.19	(2 ⁺)			
		3145.3 ^d 4	100 20	2919.74	1 ⁺			
6081.7	(1)	6081.4 4		0.0	0 ⁺			
6102.3		6102.0 9		0.0	0 ⁺			
6113.86	1	6113.6 3		0.0	0 ⁺			
6130.57	1	6130.3 2		0.0	0 ⁺			
6145.87	1	6145.6 2		0.0	0 ⁺			
6162.7		6162.4 9		0.0	0 ⁺			
6191.57	1	6191.3 2		0.0	0 ⁺			
6223.7		6223.4 7		0.0	0 ⁺			
6228.5	1	6228.2 4		0.0	0 ⁺			
6235.1		6234.8 9		0.0	0 ⁺			
6240.98	1	6240.7 3		0.0	0 ⁺			
6272.98	1	6272.7 3		0.0	0 ⁺			
6285.58	1	6285.3 2		0.0	0 ⁺			
6315.7	1	6315.4 4		0.0	0 ⁺			
6330.48	1	6330.2 2		0.0	0 ⁺			
6366.5		6366.2 11		0.0	0 ⁺			
6393.5	1	6393.2 5		0.0	0 ⁺			
6408.4	1	6408.1 5		0.0	0 ⁺			
6436.4		6436.1 9		0.0	0 ⁺			
6448.6		6448.3 11		0.0	0 ⁺			
6472.50	1	6472.2 3		0.0	0 ⁺			
6498.20	1	6497.9 3		0.0	0 ⁺			
6513.6	1	6513.3 4		0.0	0 ⁺			
6572.3		6572.0 6		0.0	0 ⁺			
6601.51	1	6601.2 2		0.0	0 ⁺			
6611.4		6611.1 6		0.0	0 ⁺			
6629.31	1	6629.0 3		0.0	0 ⁺			
6642.2		6641.9 5		0.0	0 ⁺			
6661.7		6661.4 9		0.0	0 ⁺			

Adopted Levels, Gammas (continued)

							$\gamma(^{76}\text{Ge})$ (continued)						
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult.#	$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult.#
6670.91	1	6670.6 3		0.0	0 ⁺		7723.1	(1)	7722.7 4		0.0	0 ⁺	
6741.9	(1)	6741.6 6		0.0	0 ⁺		7777.3	(1)	7776.9 7		0.0	0 ⁺	
6765.1	1	6764.8 4		0.0	0 ⁺		7784.2		7783.8 9		0.0	0 ⁺	
6787.03	1	6786.7 2		0.0	0 ⁺		7797.0	1	7796.6 4		0.0	0 ⁺	
6816.83	1	6816.5 3		0.0	0 ⁺		7804.1	1	7803.7 6		0.0	0 ⁺	
6835.83	1	6835.5 2		0.0	0 ⁺		7814.7	1	7814.3 7		0.0	0 ⁺	
6846.53	1	6846.2 3		0.0	0 ⁺		7817.63		7817.2 2		0.0	0 ⁺	
6880.6	1	6880.3 4		0.0	0 ⁺		7836.7		7836.3 6		0.0	0 ⁺	
6884.5		6884.2 10		0.0	0 ⁺		7849.7	(1)	7849.3 5		0.0	0 ⁺	
6899.2	1	6898.9 5		0.0	0 ⁺		7861.6	1	7861.2 4		0.0	0 ⁺	
6908.3		6908.0 18		0.0	0 ⁺		7883.7	1	7883.3 10		0.0	0 ⁺	
6938.9	1	6938.6 7		0.0	0 ⁺		7894.0		7893.6 12		0.0	0 ⁺	
6960.24	1	6959.9 3		0.0	0 ⁺		7916.2	1 ⁻	7915.8 24	100	0.0	0 ⁺	E1
6985.4	1	6985.1 5		0.0	0 ⁺		7950.35	1	7949.9 2		0.0	0 ⁺	
6999.05	1 ⁻	6998.7 3	100	0.0	0 ⁺	E1	7976.1	(1)	7975.6 7		0.0	0 ⁺	
7011.4	1	7011.0 9		0.0	0 ⁺		7996.3	(1)	7995.8 4		0.0	0 ⁺	
7026.35	1 ⁽⁻⁾	7026.0 3		0.0	0 ⁺	(E1)	8018.0	(1)	8017.5 14		0.0	0 ⁺	
7048.3	1	7047.9 9		0.0	0 ⁺		8027.0	(1)	8026.5 8		0.0	0 ⁺	
7081.6	1	7081.2 9		0.0	0 ⁺		8049.8	(1)	8049.3 6		0.0	0 ⁺	
7091.8	1	7091.4 4		0.0	0 ⁺		8063.9	1	8063.4 8		0.0	0 ⁺	
7102.8	1	7102.4 6		0.0	0 ⁺		8094.7		8094.2 8		0.0	0 ⁺	
7121.66	1	7121.3 3		0.0	0 ⁺		8103.3		8102.8 5		0.0	0 ⁺	
7130.46	1	7130.1 3		0.0	0 ⁺		8110.0		8109.5 8		0.0	0 ⁺	
7147.7	1	7147.3 4		0.0	0 ⁺		8135.0		8134.5 11		0.0	0 ⁺	
7172.0		7171.6 9		0.0	0 ⁺		8152.3	1 ⁽⁻⁾	8151.8 5	100	0.0	0 ⁺	(E1)
7250.9	1 ⁻	7250.5 7		0.0	0 ⁺	E1	8160.7		8160.2 9		0.0	0 ⁺	
7290.1		7289.7 4		0.0	0 ⁺		8178.3	1	8177.8 4		0.0	0 ⁺	
7301.08	1 ⁻	7300.7 3		0.0	0 ⁺	E1	8188.3	1	8187.8 5		0.0	0 ⁺	
7407.09	1	7406.7 3		0.0	0 ⁺		8236.9	(1)	8236.4 4		0.0	0 ⁺	
7416.0		7415.6 4		0.0	0 ⁺		8253.4		8252.9 9		0.0	0 ⁺	
7452.6		7452.2 5		0.0	0 ⁺		8260.1	(1)	8259.6 6		0.0	0 ⁺	
7479.0		7478.6 5		0.0	0 ⁺		8284.99	(1)	8284.5 3		0.0	0 ⁺	
7485.40	1	7485.0 3		0.0	0 ⁺		8294.8		8294.3 12		0.0	0 ⁺	
7521.6	1	7521.2 5		0.0	0 ⁺		8304.0	1	8303.5 5		0.0	0 ⁺	
7537.0	(1)	7536.6 4		0.0	0 ⁺		8318.29	1	8317.8 3		0.0	0 ⁺	
7549.2	(1)	7548.8 7		0.0	0 ⁺		8329.4	1	8328.9 7		0.0	0 ⁺	
7585.0	1	7584.6 4		0.0	0 ⁺		8348.2		8347.7 9		0.0	0 ⁺	
7643.0	1	7642.6 4		0.0	0 ⁺		8357.9	(1)	8357.4 7		0.0	0 ⁺	
7651.2	1	7650.8 4		0.0	0 ⁺		8397.8		8397.3 5		0.0	0 ⁺	
7678.1	1	7677.7 4		0.0	0 ⁺		8418.5		8418.0 15		0.0	0 ⁺	
7694.6	1	7694.2 11	100	0.0	0 ⁺		8425.70	1	8425.2 3	100	0.0	0 ⁺	

Adopted Levels, Gammas (continued)

$\gamma(^{76}\text{Ge})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	E_f	J_f^π	Mult. [#]	$E_i(\text{level})$	J_i^π	$E_\gamma^\ddagger$	E_f	J_f^π
8446.6	(1)	8446.1 7		0.0	0 ⁺		9020.1	(1)	9019.5 10	0.0	0 ⁺
8462.4		8461.9 9		0.0	0 ⁺		9033.7		9033.1 9	0.0	0 ⁺
8500.51	1	8500.0 3		0.0	0 ⁺		9052.3	(1)	9051.7 12	0.0	0 ⁺
8521.2		8520.7 6		0.0	0 ⁺		9059.1		9058.5 11	0.0	0 ⁺
8535.6	1	8535.1 5		0.0	0 ⁺		9163.9	1	9163.3 9	0.0	0 ⁺
8546.6	1 ⁻	8546.1 5		0.0	0 ⁺	E1	9176.1	1	9175.5 8	0.0	0 ⁺
8552.8	1	8552.3 8		0.0	0 ⁺		9188.0	1	9187.4 4	0.0	0 ⁺
8567.42	1	8566.9 3		0.0	0 ⁺		9255.2		9254.6 7	0.0	0 ⁺
8602.8		8602.3 5		0.0	0 ⁺		9264.7		9264.1 6	0.0	0 ⁺
8626.2	1	8625.7 7		0.0	0 ⁺		9305.6		9305.0 4	0.0	0 ⁺
8649.6		8649.1 8		0.0	0 ⁺		9316.4		9315.8 4	0.0	0 ⁺
8662.5	(1)	8662.0 4		0.0	0 ⁺		9338.4		9337.8 6	0.0	0 ⁺
8696.7		8696.2 7		0.0	0 ⁺		9355.1	(1)	9354.5 8	0.0	0 ⁺
8741.2	(1)	8740.7 4		0.0	0 ⁺		9366.5	1	9365.9 5	0.0	0 ⁺
8753.2	1 ⁻	8752.7 6		0.0	0 ⁺	E1	9378.5	(1)	9377.9 4	0.0	0 ⁺
8768.9	1	8768.4 9		0.0	0 ⁺		9400.0	1	9399.4 6	0.0	0 ⁺
8806.8		8806.2 5		0.0	0 ⁺		9410.5	1	9409.9 4	0.0	0 ⁺
8844.3	1	8843.7 4		0.0	0 ⁺		9418.2	1	9417.6 5	0.0	0 ⁺
8889.1		8888.5 9		0.0	0 ⁺		9557.2	1	9556.6 5	0.0	0 ⁺
9014.2	1 ⁻	9013.6 14	100	0.0	0 ⁺	E1					

[†] Additional information 4.

[‡] When a level is populated in more than one gamma-ray datasets, averages of all available data of comparable precision are taken. Exceptions are noted.

[#] From $\gamma(\theta)$ in (n,n' γ). RUL for E2 and M2 restricts to E2 and M1+E2 for mult=Q and D+Q, respectively. Exceptions are noted.

[@] From (n,n' γ) only.

[&] Placement suggested by the evaluators.

^a γ from ²³⁸U(⁷⁶Ge,⁷⁶Ge' γ) only.

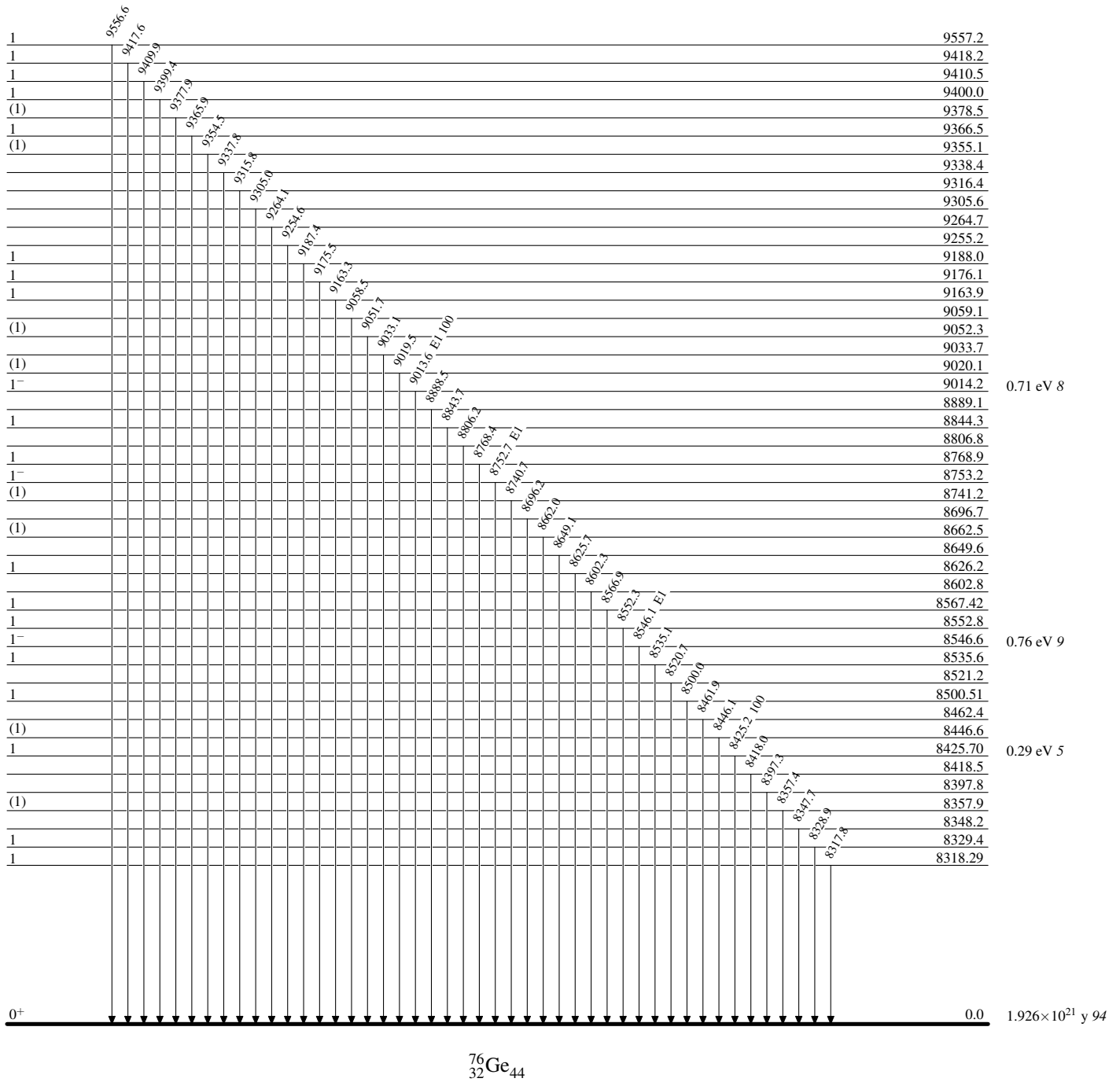
^b Poor fit, level-energy difference=1611.6.

^c Multiply placed with undivided intensity.

^d Placement of transition in the level scheme is uncertain.

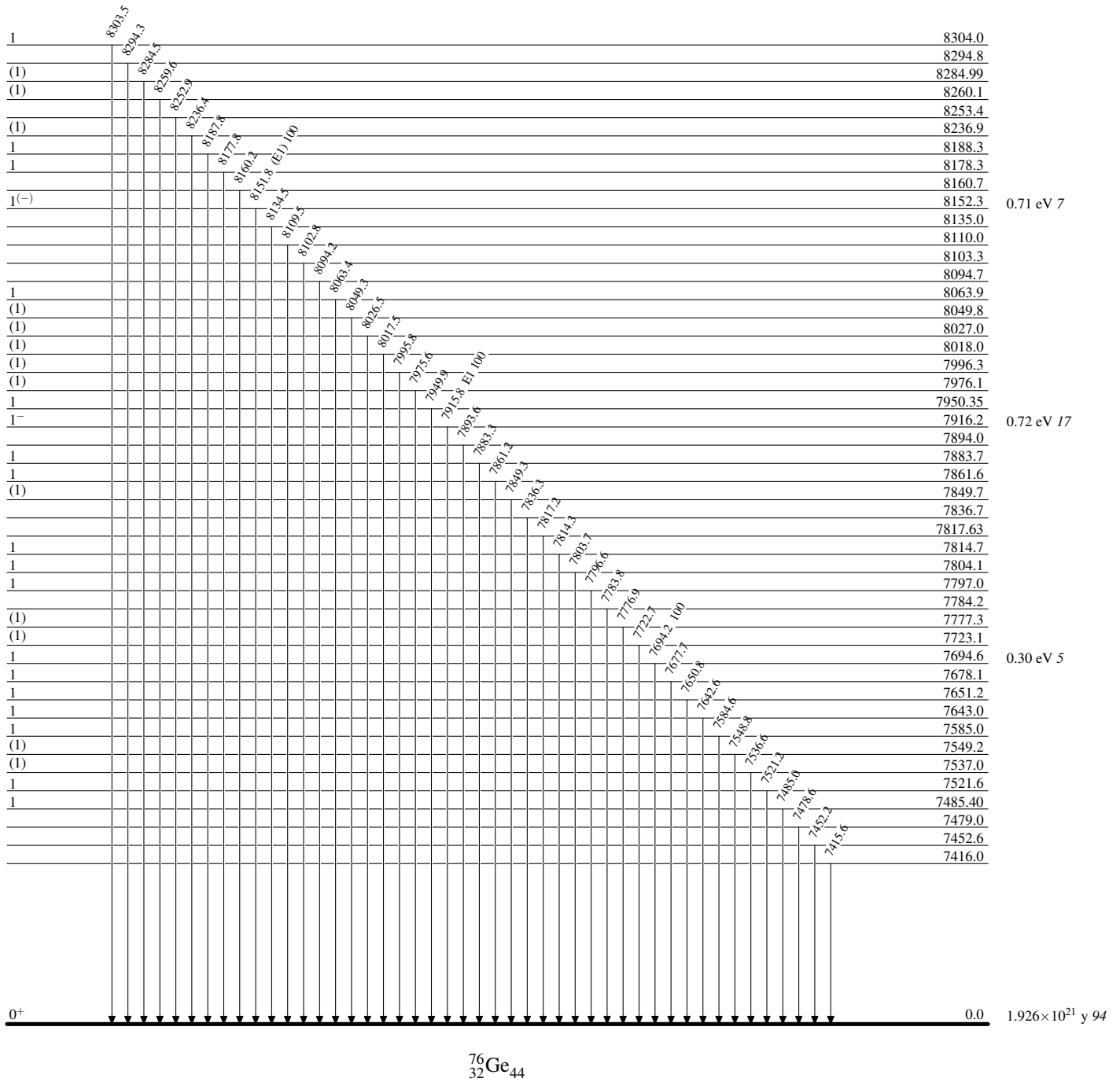
Adopted Levels, GammasLevel Scheme

Intensities: Relative photon branching from each level



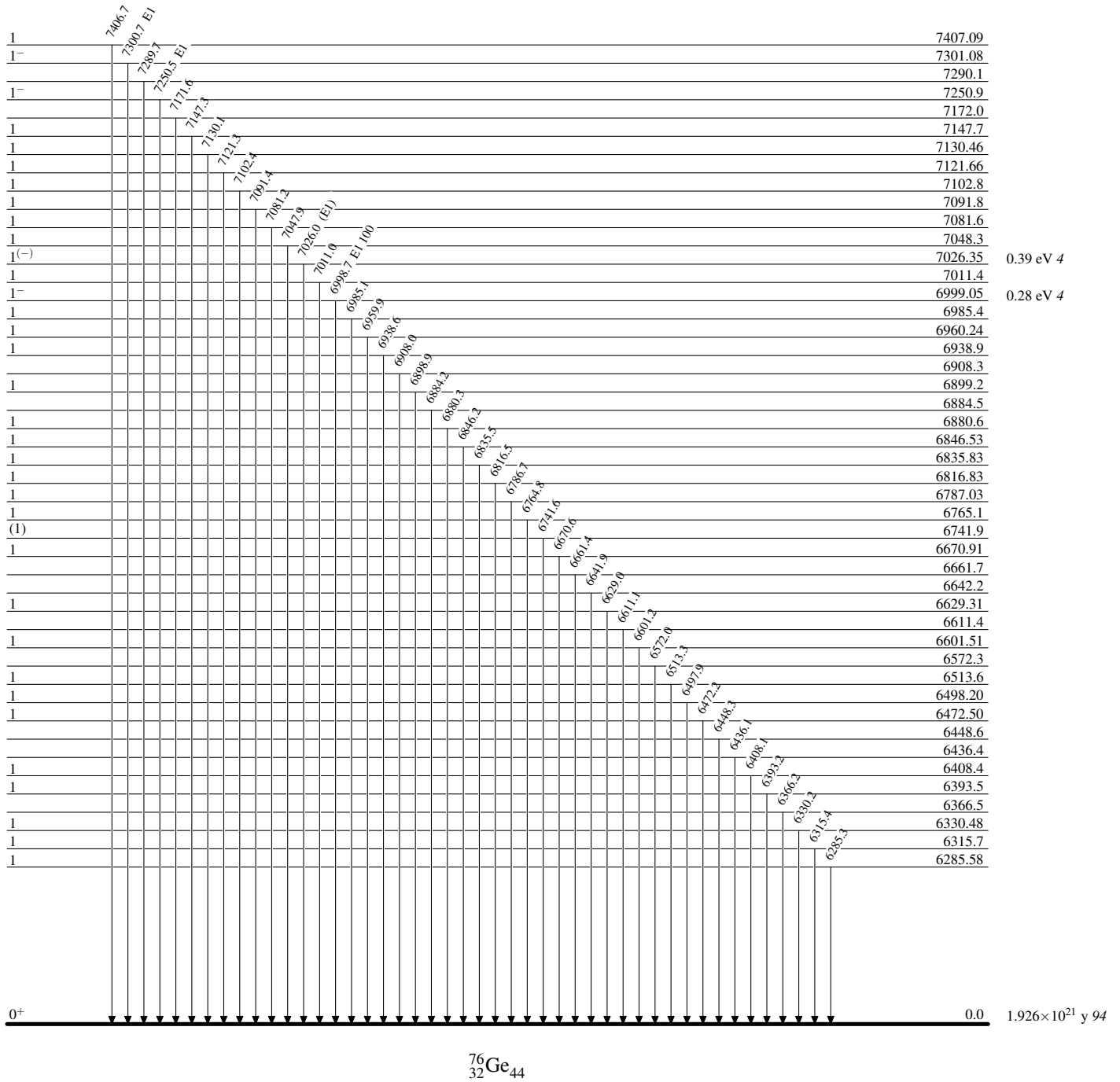
Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Relative photon branching from each level



Adopted Levels, GammasLevel Scheme (continued)

Intensities: Relative photon branching from each level

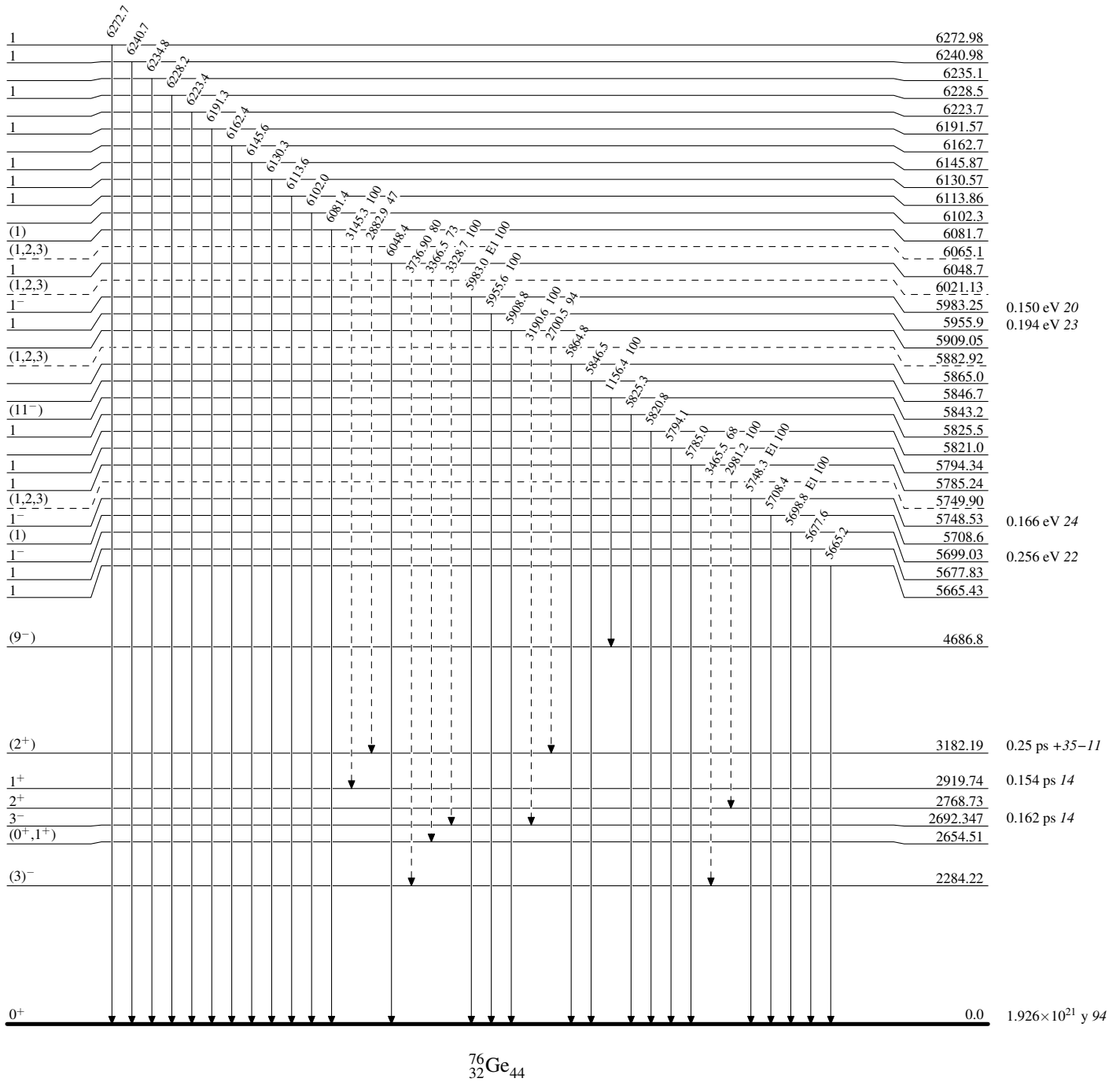


Adopted Levels, Gammas

Legend

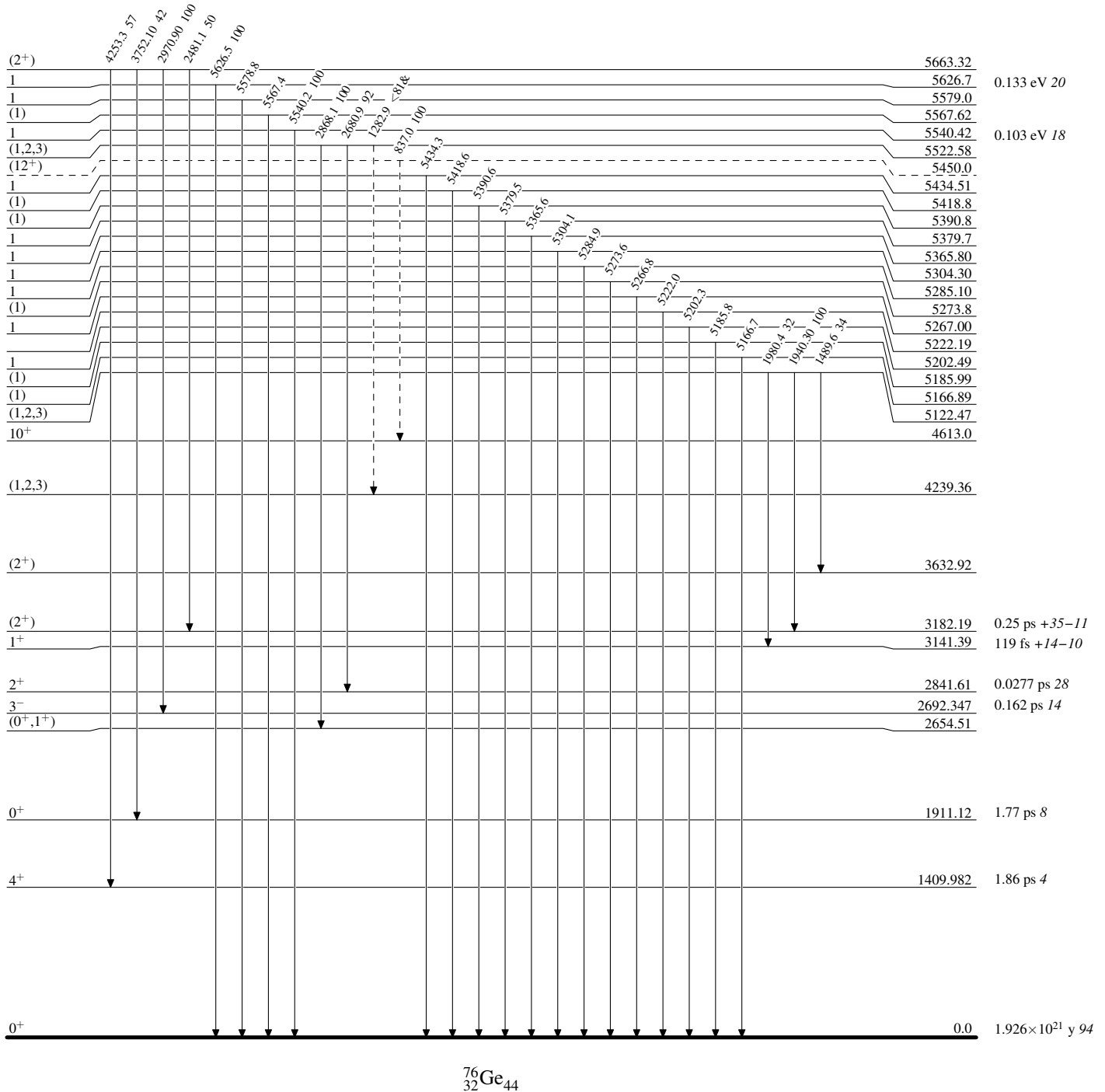
Level Scheme (continued)

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain)

Adopted Levels, Gammas

Legend

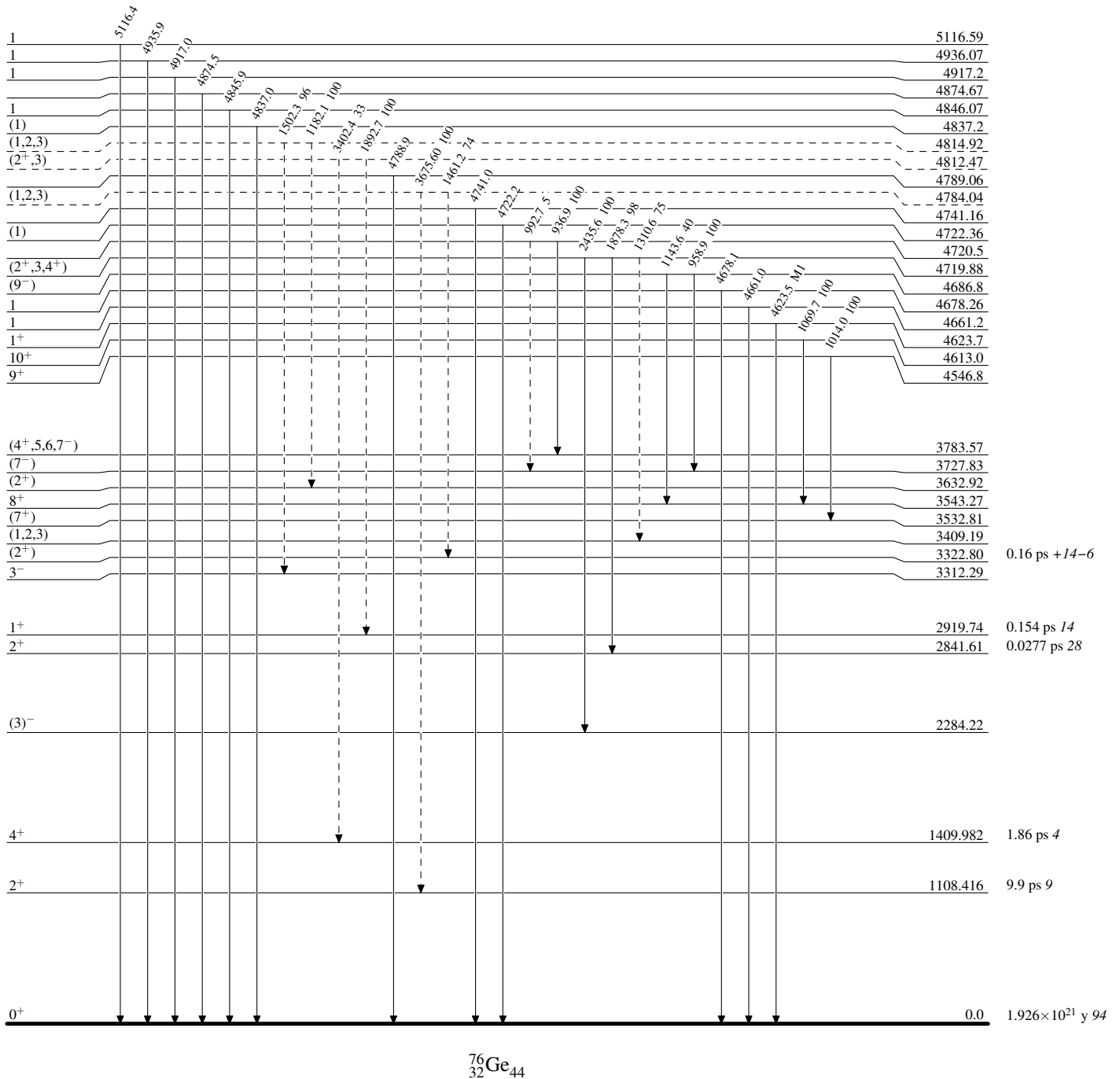
Level Scheme (continued)Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given-----► γ Decay (Uncertain) $^{76}_{32}\text{Ge}_{44}$

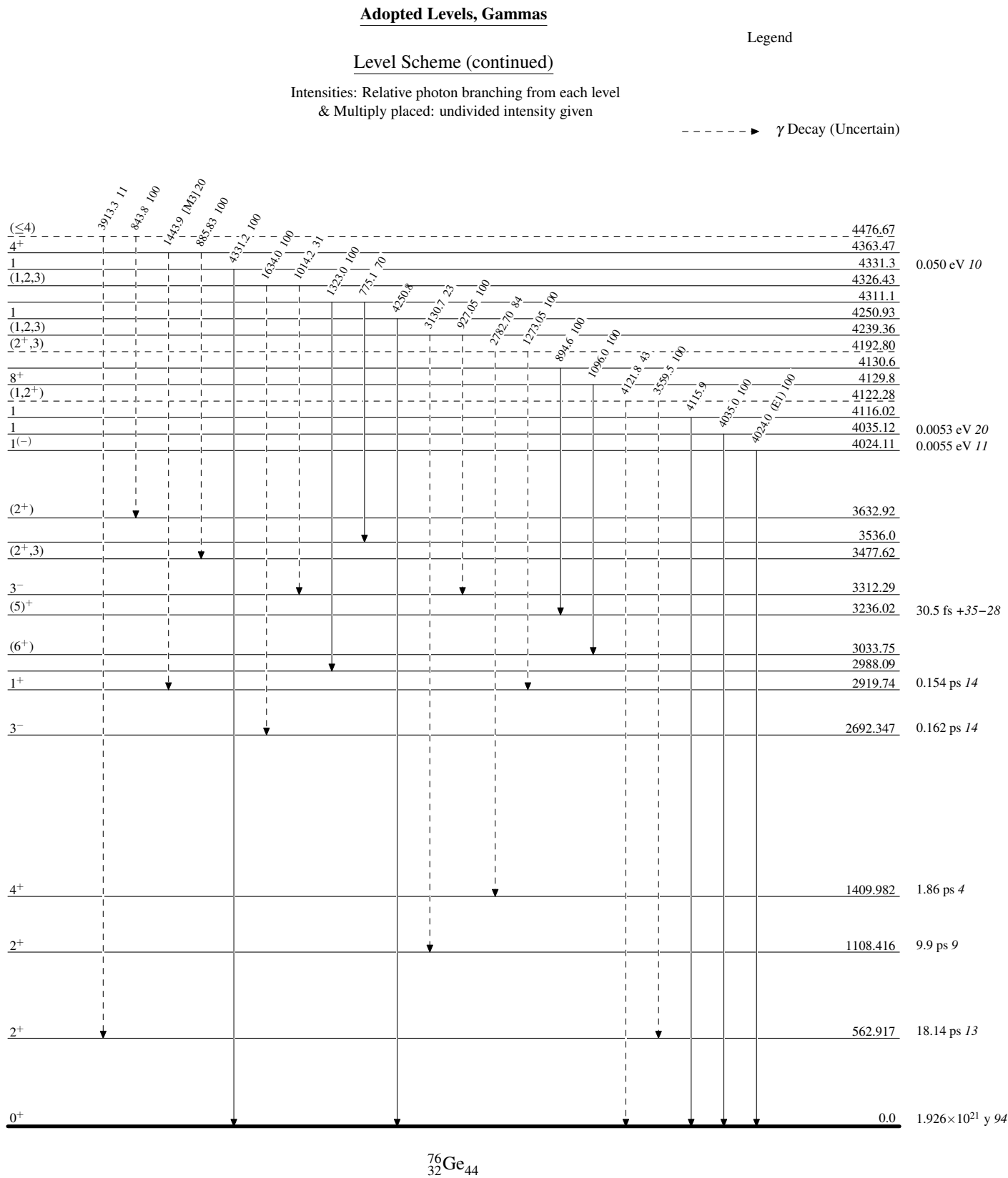
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

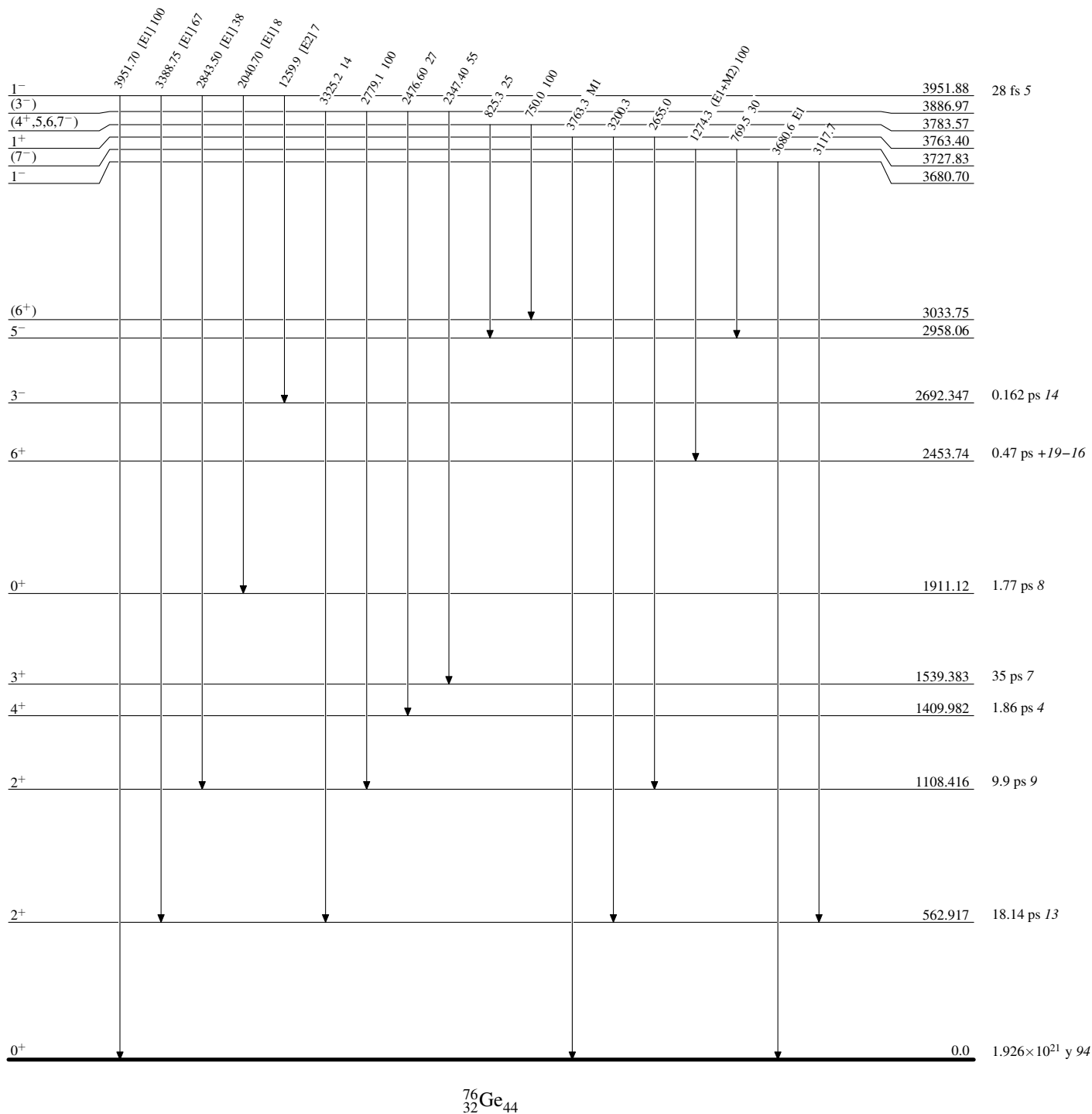
-----► γ Decay (Uncertain) $^{76}_{32}\text{Ge}_{44}$

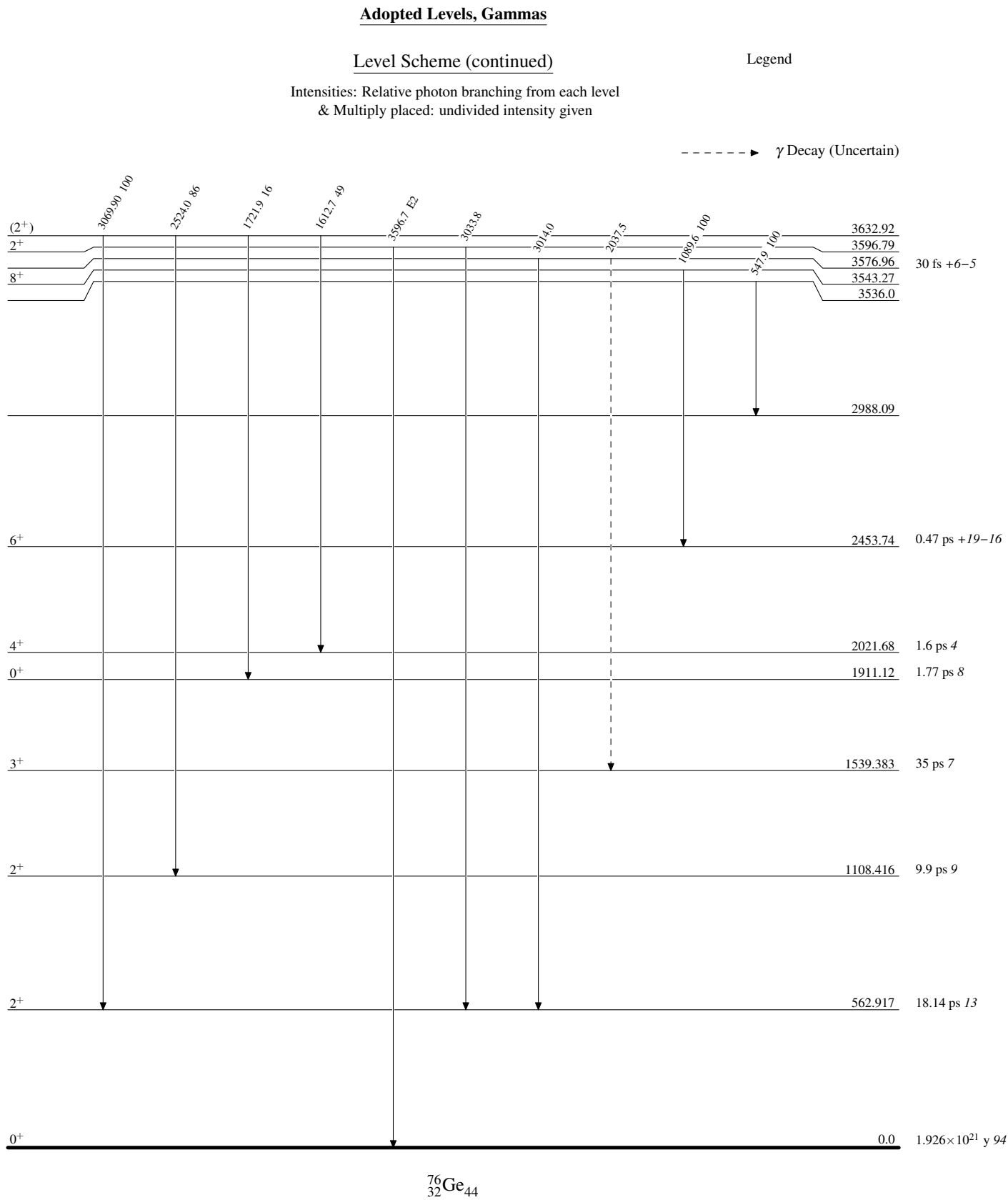


Adopted Levels, Gammas

Level Scheme (continued)

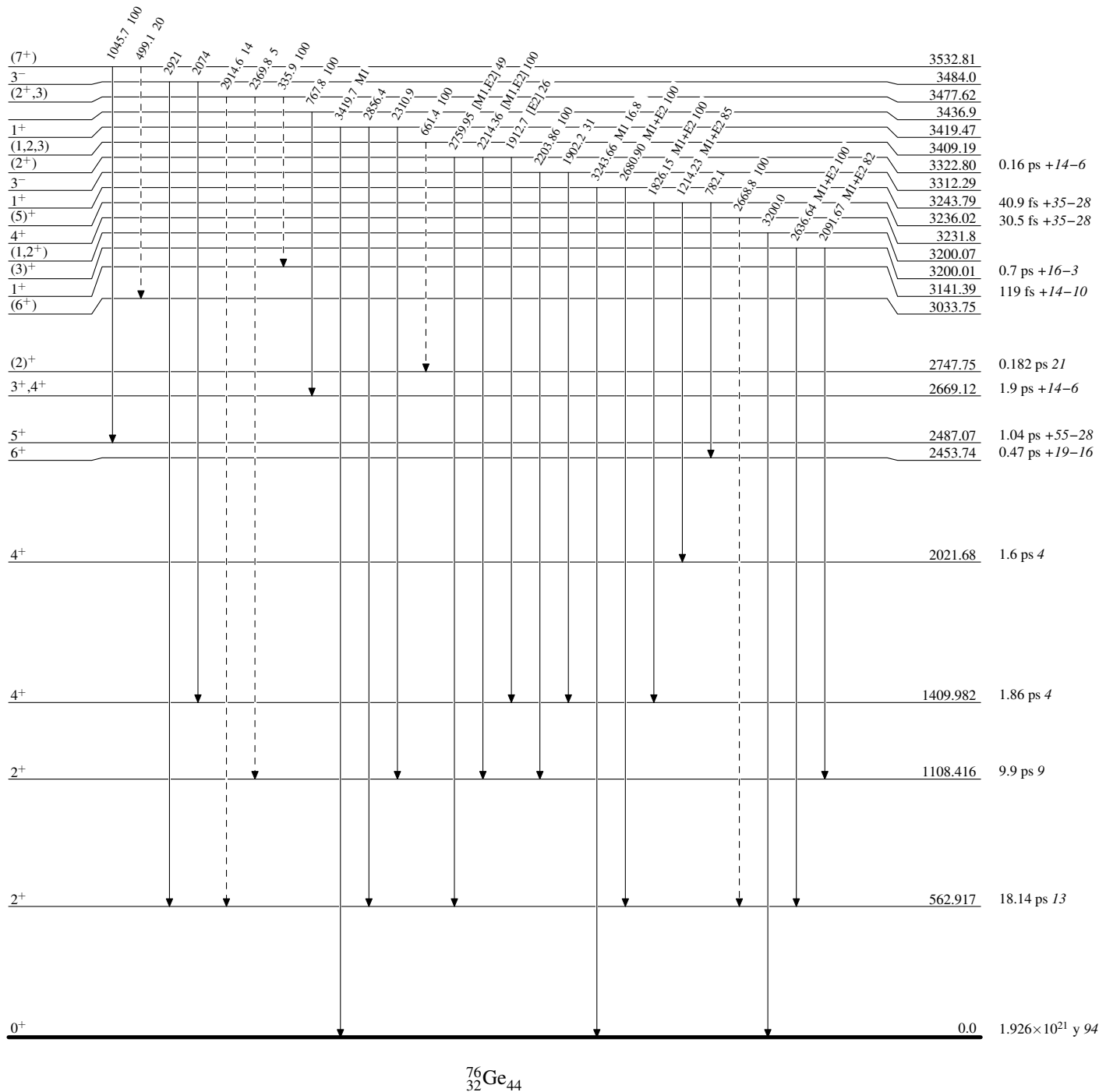
Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given





Adopted Levels, Gammas

Legend

Level Scheme (continued)Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given-----► γ Decay (Uncertain) $^{76}_{32}\text{Ge}_{44}$

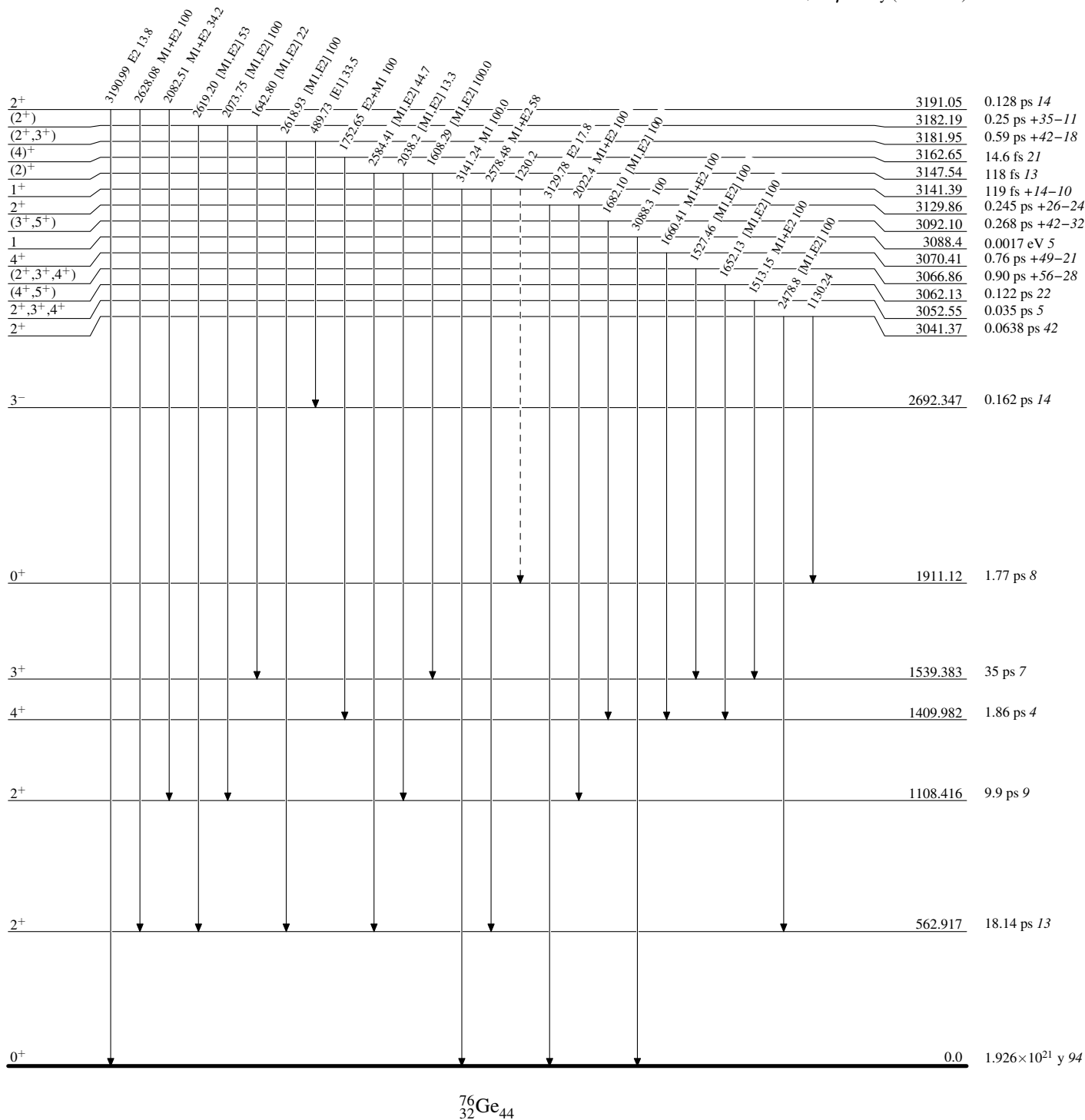
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

-----► γ Decay (Uncertain)

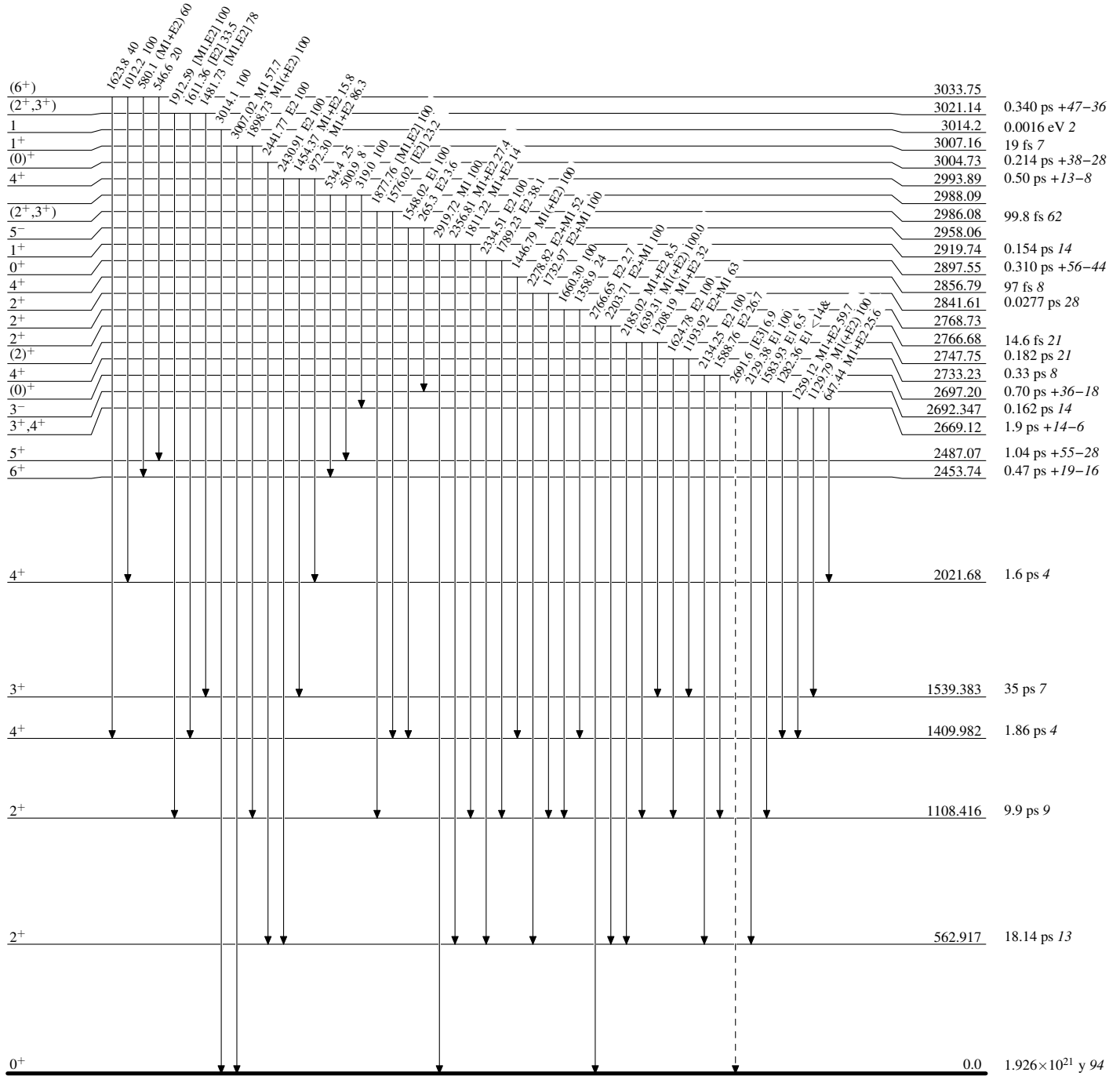


Adopted Levels, Gammas

Legend

Level Scheme (continued)

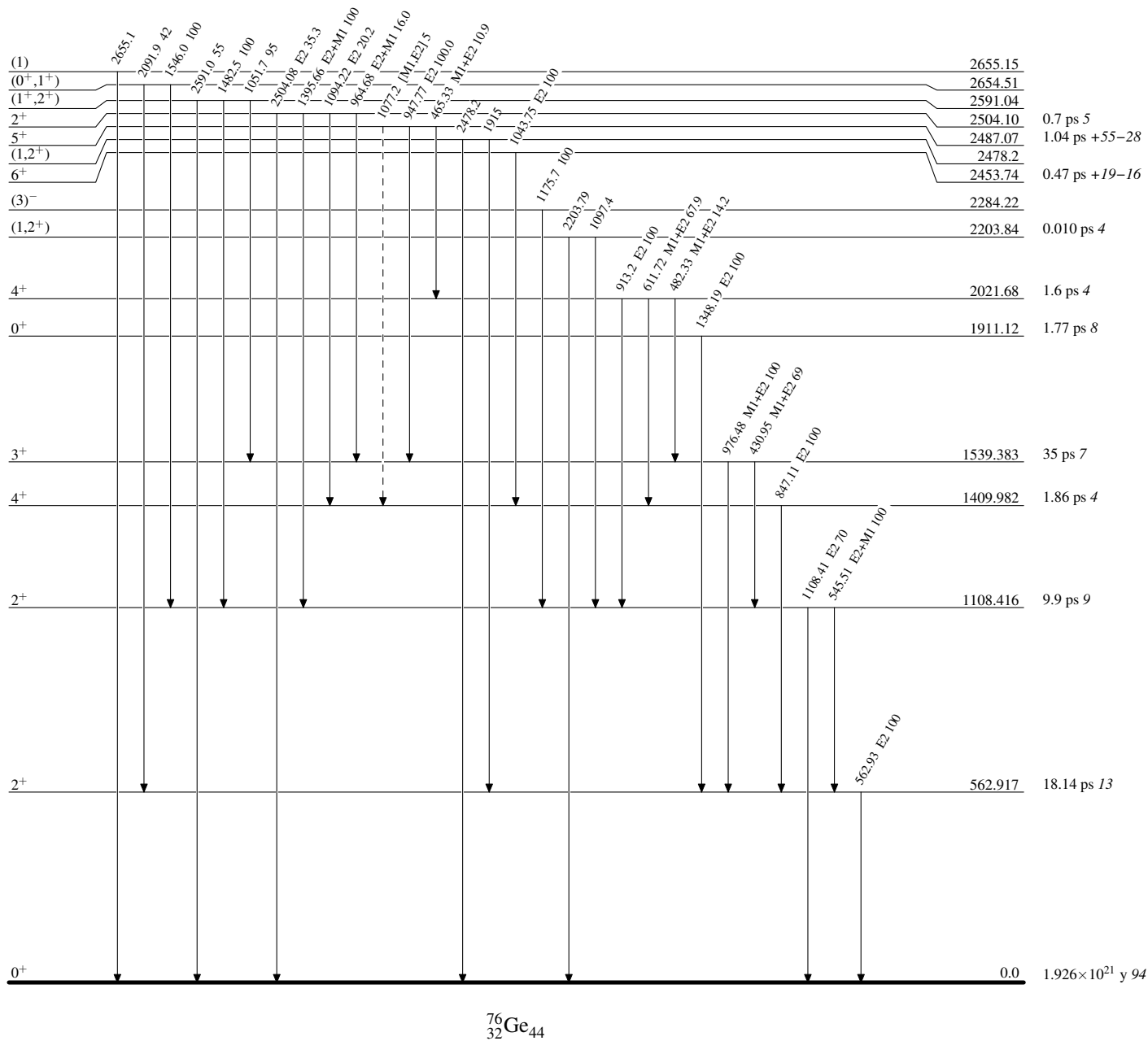
Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

-----► γ Decay (Uncertain) $^{76}_{32}\text{Ge}_{44}$

Adopted Levels, GammasLevel Scheme (continued)

Legend

Intensities: Relative photon branching from each level
& Multiplied: undivided intensity given

-----► γ Decay (Uncertain)

Adopted Levels, Gammas

