^{76}Ge(^{18}O,4nγ) 1985Wa09

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. K. Basu, E. A. Mccutchan	NDS 165,1 (2020)	1-Mar-2020

1985Wa09: E(^{18}O)=40-80 MeV. Measured excit, $\gamma\gamma$ coin, $\gamma(\theta)$, γ-ray linear polarizations, DSA and recoil distance. Ge detectors. α: Additional information 1.

^{90}Zr Levels

E(level)†	J$^{\pi}$‡	T$_{1/2}$#	E(level)†	J$^{\pi}$‡	T$_{1/2}$#
0	0^+		6769.50 *19*	(12^+)	
1760.69 *20*	0^+		6953.96 *7*	$(11)^-$	<28 ps
2186.285 *8*	2^+		7008.63 *7*	$(11)^-$	
2319.002 *8*	5^-		7025.61 *7*	$(10)^+$	
2739.29 *5*	4^-		7194.36 *7*	$(11)^+$	<28 ps
2747.839 *24*	3^-		7223.91 *7*	$(12)^+$	59 ps *10*
3076.899 *11*	4^+		7437.84 *8*	$(13)^+$	2.9 ps *5*
3448.193 *10*	6^+		8058.42 *11*	$(14)^+$	0.28 ps *14*
3589.446 *10*	8^+		8958.13 *23*	$(15)^-$	0.5 ps *3*
5164.463 *18*	(8^+)		9707.0? *3*	(16^-)	0.49 ps *14*
5247.498 *23*	9^+	<28 ps	9836.0 *3*	$(15)^+$	
5644.04 *5*	10^+	<28 ps	10125.8 *3*	$(16)^+$	0.62 ps *21*
5792.07 *3*	$9^{(+)}$		10764.97 *8*	(17^+)	0.14 ps *14*
6279.69 *11*	$(11)^+$		11403.9 *11*	(18^+)	0.21 ps *11*
6376.12 *9*	$10^{(-)}$	<28 ps	12110.8 *11*	(19^+)	0.14 ps *5*
6721.11 *9*	(10^-)		12964.8 *12*	(20)	<0.35 ps

† From a least-squares fit to Eγ, by evaluators.
‡ From 1985Wa09 based on$\gamma(\theta)$, linear polarization and RUL assuming J(initial)≥J(final) and using systematics for the alignment coefficients.
# From DSA and RDM (1985Wa09).

^{76}Ge(^{18}O,4nγ) 1985Wa09 (continued)

$\gamma(^{90}Zr)$

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	δ[‡]	α	Comments
29.57 *8*	14.5 *20*	7223.91	(12)$^+$	7194.36	(11)$^+$	(M1)		6.74 *11*	α(K)=5.90 *10*; α(L)=0.702 *12*; α(M)=0.1222 *20*; α(N)=0.0172 *3*; α(O)=0.001165 *19* I_γ: From E. Warburton, priv. comm. Mult.: No polarization data available. Mult. is from intensity arguments (α for E1 and M1 are 3.7 and 6.8, respectively). Absence of E2 admixture is from RUL.
54.66 *5*	2.15 *30*	7008.63	(11)$^-$	6953.96	(11)$^-$				Mult.: A_2=−0.016 *4* (1985Wa09). I_γ: From E. Warburton, priv. comm. A_2=+0.076 *16* (1985Wa09).
132.717[@] *3*	16.5 *10*	2319.002	5$^-$	2186.285	2$^+$				A_2=+0.001 *1*, A_4=+0.001 *1* (1985Wa09).
[x]134.34 *3*	4.0 *7*								A_2=−0.003 *12* (1985Wa09).
141.252[@] *2*	260 *10*	3589.446	8$^+$	3448.193	6$^+$	E2		0.316	α(K)=0.268 *4*; α(L)=0.0401 *6*; α(M)=0.00699 *10*; α(N)=0.000938 *14*; α(O)=4.52×10^{-5} *7* I_γ: Unresolved from impurity line. From intensity balance at the 3448 level, using α(exp)=0.32 for 141 γ. Mult.: A_2=+0.023 *3*, A_4=−0.007 *3*, Pol=+0.032 *3* (1985Wa09).
168.760 *4*	30.8 *10*	7194.36	(11)$^+$	7025.61	(10)$^+$	M1+E2		0.107 *59*	α(K)=0.092 *50*; α(L)=0.0124 *75*; α(M)=0.0022 *13*; α(N)=3.0×10^{-4} *18*; α(O)=1.64×10^{-5} *80* Mult.: A_2=−0.030 *2*, A_4=0.000 *2*, Pol=−0.022 *8* (1985Wa09).
213.93 *4*	177 *6*	7437.84	(13)$^+$	7223.91	(12)$^+$	M1+E2	−0.07 *3*	0.0264 *5*	α(K)=0.0232 *4*; α(L)=0.00265 *5*; α(M)=0.000461 *8*; α(N)=6.53×10^{-5} *12*; α(O)=4.55×10^{-6} *7* Mult.,δ: A_2=−0.032 *2*, A_4=+0.002 *2*, Pol=−0.019 *4* (1985Wa09).
215.27 *4*	37.2 *30*	7223.91	(12)$^+$	7008.63	(11)$^-$				Mult.,δ: A_2=−0.037 *9* (1985Wa09).
269.93 *5*	78.5 *25*	7223.91	(12)$^+$	6953.96	(11)$^-$	E1(+M2)	−0.02 *3*	0.00651 *16*	α(K)=0.00575 *14*; α(L)=0.000638 *17*; α(M)=0.000110 *3*; α(N)=1.55×10^{-5} *5*; α(O)=1.06×10^{-6} *3* Mult.,δ: A_2=−0.026 *1*, Pol=+0.036 *6* (1985Wa09).
287.55 *7*	18.0 *5*	7008.63	(11)$^-$	6721.11	(10$^-$)	M1+E2	−0.07 *5*	0.01235 *21*	α(K)=0.01087 *19*; α(L)=0.001231 *23*; α(M)=0.000214 *4*; α(N)=3.03×10^{-5} *6*; α(O)=2.13×10^{-6} *4* Mult.,δ: A_2=−0.035 *2*, Pol=−0.035 *12* (1985Wa09).
289.83 *6*	22.3 *9*	10125.8	(16)$^+$	9836.0	(15)$^+$	M1(+E2)	−0.01 *6*	0.01205 *18*	α(K)=0.01061 *16*; α(L)=0.001199 *19*; α(M)=0.000208 *4*; α(N)=2.96×10^{-5} *5*; α(O)=2.07×10^{-6} *3* Mult.,δ: A_2=−0.025 *3*, Pol=−0.030 *14* (1985Wa09).
329.059[&] *25*	≈0.58	3076.899	4$^+$	2747.839	3$^-$				
337.65[&] *20*	≈0.12	3076.899	4$^+$	2739.29	4$^-$				
345.24 *20*	8.6 *7*	6721.11	(10$^-$)	6376.12	10$^{(-)}$				A_2=+0.040 *3*, A_4=0.000 *3* (1985Wa09).
371.295[@] *7*	6.1 *5*	3448.193	6$^+$	3076.899	4$^+$	E2		0.01064	α(K)=0.00930 *13*; α(L)=0.001119 *16*; α(M)=0.000194 *3*; α(N)=2.71×10^{-5} *4*; α(O)=1.712×10^{-6} *24* Mult.: A_2=+0.027 *5*, A_4=+0.004 *5* (1985Wa09).

$^{90}_{40}Zr_{50}$-2

^{76}Ge(^{18}O,4nγ) 1985Wa09 (continued)

γ(^{90}Zr) (continued)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	δ[‡]	α	Comments
420.29[&] *5*	≈0.12	2739.29	4^-	2319.002	5^-				
425.59[&] *20*	≈0.14	2186.285	2^+	1760.69	0^+				
[x]429.9 *8*	13.2 *10*					M1		0.00457	α(K)=0.00403 *6*; α(L)=0.000451 *7*; α(M)=7.83×10^{-5} *12*; α(N)=1.112×10^{-5} *17*; α(O)=7.86×10^{-7} *12* Mult.: A_2=−0.033 *4*, Pol=−0.025 *8* (1985Wa09).
441.42[#b] *13*	≤1[#]	6721.11	(10^-)	6279.69	$(11)^+$				
[x]484.75 *25*	24.2 *10*					M1		0.00344	α(K)=0.00303 *5*; α(L)=0.000338 *5*; α(M)=5.86×10^{-5} *9*; α(N)=8.33×10^{-6} *12*; α(O)=5.90×10^{-7} *9* Mult.: A_2=−0.017 *10*, Pol=−0.004 *7* (1985Wa09).
489.81 *15*	12.0 *5*	6769.50	(12^+)	6279.69	$(11)^+$	(M1+E2)	−0.26 *6*	0.00342 *6*	α(K)=0.00302 *5*; α(L)=0.000337 *6*; α(M)=5.86×10^{-5} *11*; α(N)=8.31×10^{-6} *15*; α(O)=5.85×10^{-7} *10* Mult.,δ: A_2=−0.062 *5*, A_4=+0.014 *5*, Pol=−0.005 *7* (1985Wa09).
[x]516.40 *25*	9.4 *10*					M1		0.00296	α(K)=0.00261 *4*; α(L)=0.000290 *4*; α(M)=5.04×10^{-5} *7*; α(N)=7.17×10^{-6} *10*; α(O)=5.08×10^{-7} *8* Mult.: A_2=−0.039 *6*, Pol=−0.018 *10* (1985Wa09).
561.55[&] *5*	≈0.55	2747.839	3^-	2186.285	2^+				
584.04[#] *8*	[#]	6376.12	$10^{(-)}$	5792.07	$9^{(+)}$				I_γ: 14 +*10*−*4*. Pol=−0.027 *10*.
620.58 *8*	148 *5*	8058.42	$(14)^+$	7437.84	$(13)^+$	M1+E2	−0.14 *5*	0.00194	α(K)=0.001712 *25*; α(L)=0.000190 *3*; α(M)=3.29×10^{-5} *5*; α(N)=4.68×10^{-6} *7*; α(O)=3.32×10^{-7} *5* Mult.,δ: A_2=−0.039 *4*, Pol=−0.015 *2* (1985Wa09).
639.0[a] *8*	44[a] *10*	10764.97	(17^+)	10125.8	$(16)^+$	(M1+E2)		0.00194 *14*	α(K)=0.00171 *12*; α(L)=0.000192 *16*; α(M)=3.3×10^{-5} *3*; α(N)=4.7×10^{-6} *4*; α(O)=3.27×10^{-7} *18* Mult.,δ: A_2=−0.046 *5*, Pol=−0.017 *7* (1985Wa09) for doublet.
639.0[a] *8*	38[a] *10*	11403.9	(18^+)	10764.97	(17^+)	(M1+E2)		0.00194 *14*	α(K)=0.00171 *12*; α(L)=0.000192 *16*; α(M)=3.3×10^{-5} *3*; α(N)=4.7×10^{-6} *4*; α(O)=3.27×10^{-7} *18* Mult.,δ: A_2=−0.046 *5*, Pol=−0.017 *7* (1985Wa09) for doublet.
706.8 *3*	20.5 *20*	12110.8	(19^+)	11403.9	(18^+)	(M1(+E2))	−0.3 *5*	0.00145 *5*	α(K)=0.00128 *4*; α(L)=0.000142 *6*; α(M)=2.46×10^{-5} *10*; α(N)=3.50×10^{-6} *14*; α(O)=2.48×10^{-7} *7* Mult.,δ: A_2=−0.080 *60*, Pol=+0.010 *12* (1985Wa09).

$^{90}_{40}Zr_{50}$-3

^{76}Ge(^{18}O,4nγ) 1985Wa09 (continued)

γ(^{90}Zr) (continued)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	δ[‡]	α	Comments
[x]713.05 *20*	13.6 *5*					M1		1.41×10^{-3}	α(K)=0.001247 *18*; α(L)=0.0001375 *20*; α(M)=2.39×10^{-5} *4*; α(N)=3.39×10^{-6} *5*; α(O)=2.42×10^{-7} *4* Mult.: A_2=+0.012 *4*, A_4=+0.005 *4*, Pol=−0.022 *19* (1985Wa09).
748.87[b] *20*	16.0 *8*	9707.0?	(16$^-$)	8958.13	(15)$^-$	(M1(+E2))	−0.15 *15*	1.27×10^{-3} *2*	α(K)=0.001119 *17*; α(L)=0.0001234 *19*; α(M)=2.14×10^{-5} *4*; α(N)=3.04×10^{-6} *5*; α(O)=2.17×10^{-7} *4* Mult.,δ: A_2=−0.056 *5*, Pol=−0.000 *20* (1985Wa09).
757.78[&] *20*	≈0.18	3076.899	4$^+$	2319.002	5$^-$				
818.23 *5*	69.2 *20*	7194.36	(11)$^+$	6376.12	10$^{(-)}$	E1(+M2)	−0.02 *4*	4.30×10^{-4} *10*	α(K)=0.000380 *9*; α(L)=4.15×10^{-5} *10*; α(M)=7.18×10^{-6} *16*; α(N)=1.019×10^{-6} *23*; α(O)=7.20×10^{-8} *16* Mult.,δ: A_2=−0.026 *3*, A_4=0.000*4*, Pol=+0.031 *3* (1985Wa09).
834.51[#b] *8*	<2[#]	8058.42	(14)$^+$	7223.91	(12)$^+$				
854.0 *3*	14 *4*	12964.8	(20)	12110.8	(19$^+$)				Pol=+0.040 *20* (1985Wa09).
890.613[@] *10*	8.3 *5*	3076.899	4$^+$	2186.285	2$^+$	E2		8.82×10^{-4}	α(K)=0.000777 *11*; α(L)=8.69×10^{-5} *13*; α(M)=1.507×10^{-5} *22*; α(N)=2.13×10^{-6} *3* α(O)=1.479×10^{-7} *21* Mult.: A_2=+0.015 *4*, A_4=−0.002 *4* (1985Wa09).
899.71 *20*	92.7 *30*	8958.13	(15)$^-$	8058.42	(14)$^+$	E1(+M2)	−0.07 *7*	0.00036 *3*	α(K)=0.000321 *23*; α(L)=3.5×10^{-5} *3*; α(M)=6.0×10^{-6} *5*; α(N)=8.6×10^{-7} *7*; α(O)=6.1×10^{-8} *5* Mult.,δ: A_2=−0.034 *2*, Pol=+0.043 *15* (1985Wa09).
928.9[#b] *7*	<2.5[#]	10764.97	(17$^+$)	9836.0	(15)$^+$				
929.03[#b] *9*	≤2[#]	6721.11	(10$^-$)	5792.07	9$^{(+)}$				
1032.19 *10*	22.0 *9*	6279.69	(11)$^+$	5247.498	9$^+$	E2		6.24×10^{-4}	α(K)=0.000551 *8*; α(L)=6.11×10^{-5} *9*; α(M)=1.060×10^{-5} *15*; α(N)=1.502×10^{-6} *21* α(O)=1.050×10^{-7} *15* Mult.: A_2=+0.030 *3*, A_4=−0.012 *3*, Pol=+0.061 *14* (1985Wa09).
1077.06[#b] *8*	≤2[#]	6721.11	(10$^-$)	5644.04	10$^+$				
1128.2 *7*	50 *6*	6376.12	10$^{(-)}$	5247.498	9$^+$				
1129.182[@] *10*	340 *12*	3448.193	6$^+$	2319.002	5$^-$	E1		2.41×10^{-4}	α(K)=0.000203 *3*; α(L)=2.20×10^{-5} *3*; α(M)=3.81×10^{-6} *6*; α(N)=5.42×10^{-7} *8*;

$^{90}_{40}Zr_{50}$-4

^{76}Ge(^{18}O,4nγ) 1985Wa09 (continued)

γ(^{90}Zr) (continued)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	δ[‡]	α	Comments
									α(O)=3.85×10^{-8} *6* Mult.: A_2=−0.020 *1*, A_4=+0.001 *2*, Pol=+0.022 *3* (1985Wa09).
1167.70 *20*	39.0 *16*	10125.8	(16)$^+$	8958.13	(15)$^-$	E1(+M2)	−0.02 *5*	2.42×10^{-4} *5*	α(K)=0.000191 *5*; α(L)=2.07×10^{-5} *5*; α(M)=3.59×10^{-6} *9*; α(N)=5.10×10^{-7} *12*; α(O)=3.63×10^{-8} *9* Mult.,δ: A_2=−0.028 *4*, Pol=+0.037 *4* (1985Wa09).
1233.54 *10*	5.5 *8*	7025.61	(10)$^+$	5792.07	9$^{(+)}$				A_2=−0.029 *4*, A_4=−0.001 *4* (1985Wa09).
1270.422[@] *15*	5.2 *4*	3589.446	8$^+$	2319.002	5$^-$				A_2=+0.044 *15*.
1278.1[#b] *10*	<1.5[#]	11403.9	(18$^+$)	10125.8	(16)$^+$				
1288.90[#b] *21*	<2[#]	8058.42	(14)$^+$	6769.50	(12$^+$)				
1309.83 *7*	79.6 *24*	6953.96	(11)$^-$	5644.04	10$^+$	E1(+M2)	+0.02 *2*	2.90×10^{-4} *5*	α(K)=0.0001560 *23*; α(L)=1.687×10^{-5} *25*; α(M)=2.92×10^{-6} *5*; α(N)=4.15×10^{-7} *7*; α(O)=2.96×10^{-8} *5* Mult.,δ: A_2=−0.0258 *6*, A_4=−0.0004 *6*, Pol=+0.032 *4* (1985Wa09).
1345.9[#b] *8*	<2[#]	12110.8	(19$^+$)	10764.97	(17$^+$)				
1364.73 *20*	13.2 *5*	7008.63	(11)$^-$	5644.04	10$^+$	(E1(+M2))	−0.01 *2*	3.12×10^{-4}	α(K)=0.0001452 *21*; α(L)=1.569×10^{-5} *23*; α(M)=2.72×10^{-6} *4*; α(N)=3.86×10^{-7} *6*; α(O)=2.75×10^{-8} *4* Mult.,δ: A_2=−0.024 *3*, A_4=0.004 *4*, Pol=+0.008 *10* (1985Wa09).
1381.8 *3*	1.90 *20*	7025.61	(10)$^+$	5644.04	10$^+$				A_2=+0.008 *20*, A_4=−0.019 *30* (1985Wa09).
1402.27[#b] *7*	<1[#]	7194.36	(11)$^+$	5792.07	9$^{(+)}$				
1473.65 *20*	3.9 *4*	6721.11	(10$^-$)	5247.498	9$^+$				A_2=−0.004 *6*, A_4=−0.004 *6* (1985Wa09).
1520.29[#b] *22*	<1[#]	8958.13	(15)$^-$	7437.84	(13)$^+$				
1550.3 *3*	3.50 *30*	7194.36	(11)$^+$	5644.04	10$^+$	D			A_2=−0.071 *7*, A_4=−0.004 *7* (1985Wa09).
1556.63[#b] *9*	≤1.5[#]	6721.11	(10$^-$)	5164.463	(8$^+$)				
1560.8[#b] *5*	<1.5[#]	12964.8	(20)	11403.9	(18$^+$)				
1575.009[@] *20*	3.0 *5*	5164.463	(8$^+$)	3589.446	8$^+$				
1580.0 *3*	2.00 *20*	7223.91	(12)$^+$	5644.04	10$^+$	(E2)		3.70×10^{-4}	α(K)=0.000225 *4*; α(L)=2.45×10^{-5} *4*; α(M)=4.25×10^{-6} *6*; α(N)=6.04×10^{-7} *9*; α(O)=4.29×10^{-8} *6* Mult.: A_2=+0.048 *14*, A_4=−0.018 *18* (1985Wa09).
1658.035[@] *20*	95 *5*	5247.498	9$^+$	3589.446	8$^+$	E2(+M1)	+14 *14*	3.80×10^{-4} *17*	α(K)=0.000205 *8*; α(L)=2.23×10^{-5} *7*; α(M)=3.86×10^{-6} *13*; α(N)=5.49×10^{-7} *19*; α(O)=3.91×10^{-8} *17*

$^{90}_{40}Zr_{50}$-5

^{76}Ge(^{18}O,4nγ) 1985Wa09 (continued)

γ(^{90}Zr) (continued)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	δ[‡]	α	Comments
									I_γ: Unresolved from impurity lines. Iγ is from intensity balance. Mult.,δ: A_2=+0.004 *4*, A_4=+0.030 *5*, Pol=+0.007 *5* (1985Wa09).
1716.248[@] *20*	4.0 *7*	5164.463	(8$^+$)	3448.193	6$^+$				
1777.6[#] *3*	≈22.3[#]	9836.0	(15)$^+$	8058.42	(14)$^+$				A_2=−0.022 *2*, A_4=+0.002 *2*, Pol=+0.033 *10* (1985Wa09).
1778.10[#] *7*	19.8[#] *20*	7025.61	(10)$^+$	5247.498	9$^+$				A_2=−0.022 *3*, A_4=+0.002 *2*, Pol=+0.033 *10* (1985Wa09).
1806.7[#b] *8*	<2[#]	10764.97	(17$^+$)	8958.13	(15)$^-$				
1861.4 *3*	5.30 *25*	7025.61	(10)$^+$	5164.463	(8$^+$)	(E2)		4.26×10^{-4}	α(K)=0.0001642 *23*; α(L)=1.785×10^{-5} *25*; α(M)=3.09×10^{-6} *5*; α(N)=4.40×10^{-7} *7*; α(O)=3.14×10^{-8} *5* Mult.: A_2=+0.028 *10*, A_4=−0.006 *12* (1985Wa09).
2054.55 *5*	130 *4*	5644.04	10$^+$	3589.446	8$^+$	E2		4.88×10^{-4}	α(K)=0.0001368 *20*; α(L)=1.484×10^{-5} *21*; α(M)=2.57×10^{-6} *4*; α(N)=3.66×10^{-7} *6*; α(O)=2.62×10^{-8} *4* Mult.: A_2=+0.0321 *5*, A_4=−0.0102 *5*, Pol=+0.044 *7* (1985Wa09).
2067.4[#b] *3*	<2[#]	10125.8	(16)$^+$	8058.42	(14)$^+$				
2186.254[@] *10*	69.6 *20*	2186.285	2$^+$	0	0$^+$	E2		5.36×10^{-4}	α(K)=0.0001223 *18*; α(L)=1.325×10^{-5} *19*; α(M)=2.29×10^{-6} *4*; α(N)=3.27×10^{-7} *5*; α(O)=2.34×10^{-8} *4* Mult.: A_2=+0.002 *2*, A_4=−0.003 *2* (1985Wa09).
2202.60 *3*	25.5 *10*	5792.07	9$^{(+)}$	3589.446	8$^+$	(M1+E2)	−0.07 *4*	5.03×10^{-4}	α(K)=0.0001227 *18*; α(L)=1.327×10^{-5} *19*; α(M)=2.30×10^{-6} *4*; α(N)=3.28×10^{-7} *5*; α(O)=2.36×10^{-8} *4* Mult.,δ: A_2=−0.034 *3*, A_4=−0.004 *3*, Pol=+0.004 *17* (1985Wa09).
2318.968[@] *10*	306 *8*	2319.002	5$^-$	0	0$^+$				
2747.6[&] *3*	≈0.03	2747.839	3$^-$	0	0$^+$				

[†] From γ-ray data at E(^{18}O)=60 MeV, except as noted.
[‡] From $\gamma(\theta)$; δ assumes given spin combinations.
[#] Eγ deduced from level energy difference, Iγ estimated.
[@] Eγ from ^{90}Nb ε decay (1982Wa24).
[&] Eγ from ^{90}Nb ε decay (1982Wa24), Iγ estimated.
[a] Multiply placed with intensity suitably divided.

$^{90}_{40}Zr_{50}$-6

γ(^{90}Zr) (continued)

[b] Placement of transition in the level scheme is uncertain.
[x] γ ray not placed in level scheme.

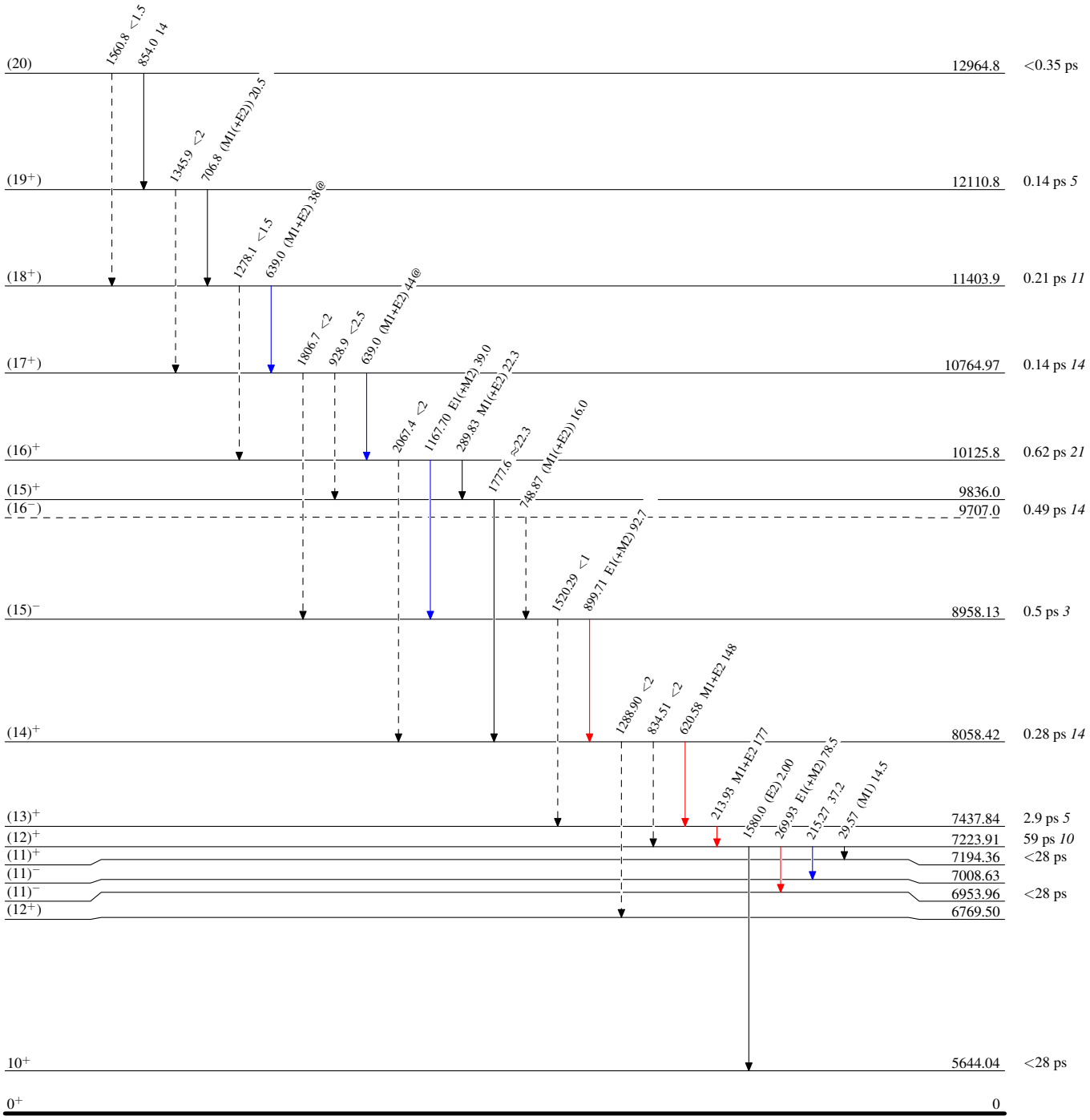
$^{90}_{40}$Zr$_{50}$-7

^{76}Ge(^{18}O,4nγ) 1985Wa09

Level Scheme

Intensities: Relative I_γ
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)

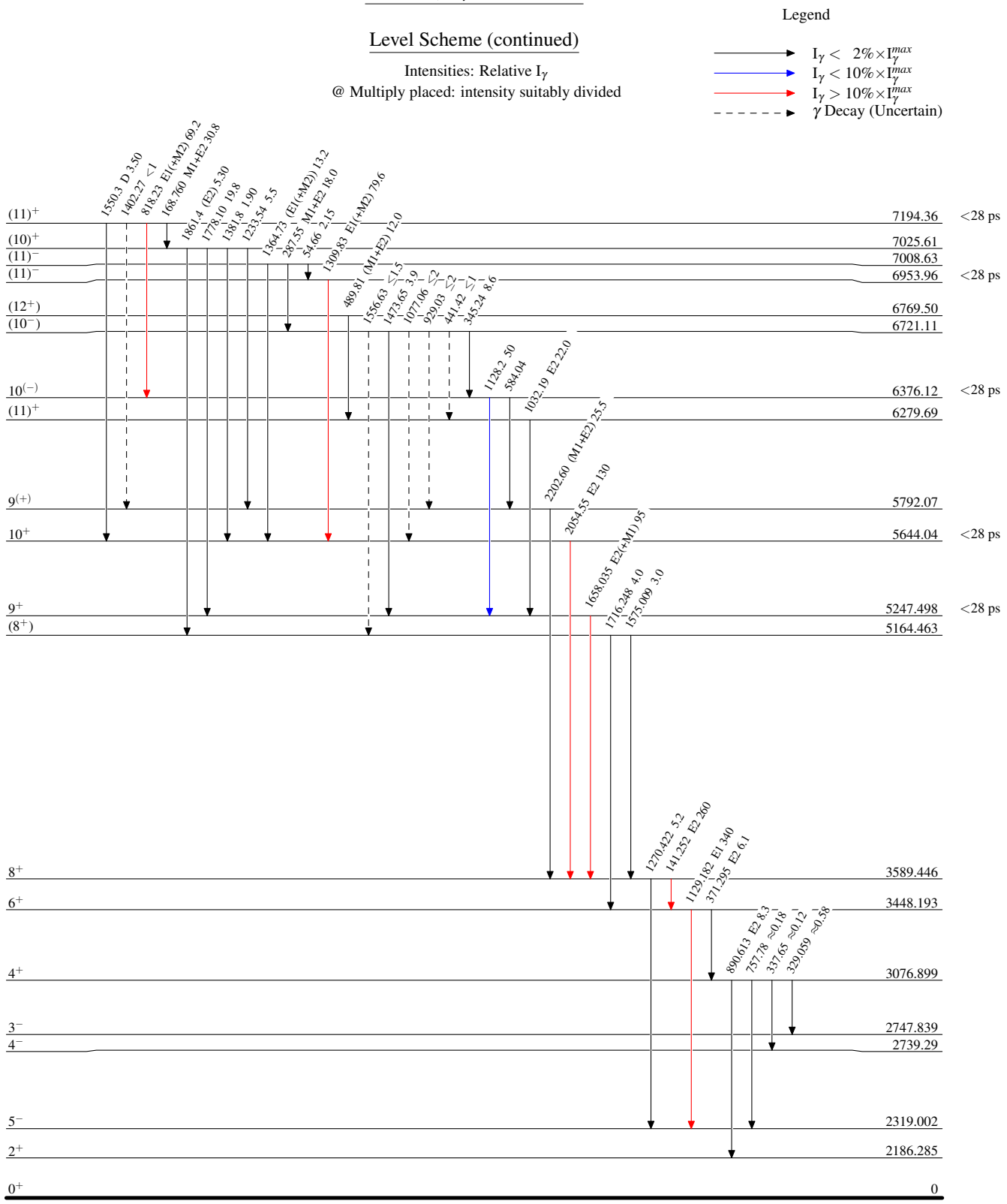


$^{90}_{40}Zr_{50}$

^{76}Ge(^{18}O,4nγ) 1985Wa09

Level Scheme (continued)

Intensities: Relative I_γ
@ Multiply placed: intensity suitably divided



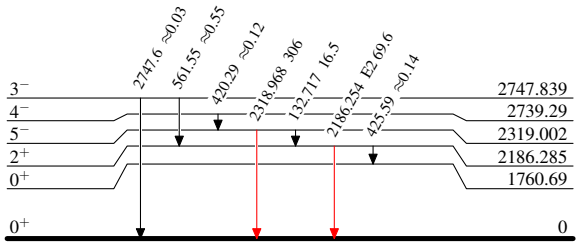
$^{90}_{40}Zr_{50}$

^{76}Ge(^{18}O,4nγ) 1985Wa09

Level Scheme (continued)

Intensities: Relative I_γ
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



$^{90}_{40}Zr_{50}$