^{92}Mo(γ,γ'), (pol γ,γ') 2006Ru06,2000DeZY,1977Me01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 2187 (2012)	15-Sep-2012

Others: 1979NaZY, 1981Bo35, 2000BaZX, 2005Wa31, 2006Ru11, 2007Sc39, 2008Wa07, 2009Ru05, 2010Er01.

2006Ru11: bremsstrahlung from 14 MeV/c electrons striking Nb radiator, 13.2 MeV endpoint; isotopically-enriched ^{92}Mo target; 4 HPGe detectors (with BGO shield) located At 90° and 127°; Pb absorber to remove very intense low-energy photons; measured nuclear resonance fluorescence spectra (Eγ=4-13.2 MeV); observed 299 resonances above 4 MeV (primarily J=1) but No strong lines identified above the neutron threshold; deduced absolute photoabsorption cross sections, dipole strength function (enhancements At 6.5 and 9 MeV linked to pygmy resonances), transition Γ and next neighbor distance distributions. see 2009Ru05 for further discussion of strength function and comparison between (γ,γ') and (γ,n) GDR data. See also 2005Wa31, 2007Sc39, 2008Wa07, 2010Er01 (13.9 MeV endpoint energy).

2006Ru06: Bremsstrahlung from E(e)=6 MeV beam striking a Nb radiator; 97.31% isotopically enriched ^{92}Mo target combined with ^{11}B for photon flux calibration; four HPGe detectors with BGO escape-suppression shields (at 90° and 127°); measured Eγ (E<4.7 MeV), Iγ(90°)/Iγ(127°), integrated photon scattering cross sections (I_s).

2000DeZY: E(bremsstrahlung)=8, 10 MeV (unpolarized γ's), 12 MeV (for polarized γ measurements); nuclear resonance fluorescence study of≈145 transitions with Eγ<12 MeV; measured Eγ, integrated cross sections, γ anisotropy; deduced $\Gamma_{\gamma 0}$, γ-ray multipolarity, properties of E1 pygmy resonance at E≈6.7 MeV. Data partially reported in 2000BaZX.

1981Bo35: Eγ=14-22 MeV (tagged photons), θ=90°; measured dσ/dΩ for γ(to g.s.) and γ(to 1509 level) in GDR region.

1977Me01: E(bremsstrahlung)=2.0-5.1 MeV; measured five resonantly scattered γ lines, θ=96° and 126°.

^{92}Mo Levels

E(level)†	J$^\pi$‡	$T_{1/2}$#	$\Gamma^2_{\gamma 0}/\Gamma$ (eV)@	Comments
0.0	0$^+$			J$^\pi$: from Adopted Levels.
1509 *1*	2$^+$&	0.404 ps *25*	0.00113 *7*	$\Gamma^2_{\gamma 0}/\Gamma$: from 1977Me01.
2518.3 *15*	0$^+$			J$^\pi$: from Adopted Levels.
2634.2? *15*	(1)		0.0068 *14*	
2838.6? *5*	(1)		0.0075 *15*	
2922.6? *6*	(1)		0.0037 *17*	$\Gamma^2_{\gamma 0}/\Gamma$ probably includes contribution from feeding.
3091.46 *20*	2$^+$&	27 fs *3*	0.0114 *21*	$\Gamma^2_{\gamma 0}/\Gamma$: unweighted average of 0.0093 *6* (1977Me01) and 0.0134 *15* from I_s=27 eVb 3 (2006Ru06). Other: 0.017 *6* (2000DeZY, if J=2). $T_{1/2}$: assuming $\Gamma_{\gamma 0}/\Gamma$=0.822 *14* from Adopted Gammas.
3384.5? *8*	(1)		0.011 *3*	
3541.8? *11*	2$^+$			J$^\pi$: from Adopted Levels.
3651.8? *11*	(1)		0.008 *4*	
3925.89 *20*	2$^+$&	10.7 fs *22*	0.018 *3*	$\Gamma^2_{\gamma 0}/\Gamma$: weighted average of 0.018 *3* (1977Me01), 0.019 *6* (2000DeZY, if J=2) and 0.0176 *32* from I_s=22 eVb 4 (2006Ru06). $\Gamma_{\gamma 0}$=0.028 *10* eV (2000DeZY). $T_{1/2}$: assuming $\Gamma_{\gamma 0}/\Gamma$=0.65 *4* from Adopted Gammas.
3944.2 *3*	1&	6 fs *4*	0.043 *6*	$\Gamma^2_{\gamma 0}/\Gamma$: unweighted average of 0.040 *6* (1977Me01), 0.054 *6* (2000DeZY) and 0.036 *4* from I_s=27 eVb 3 (2006Ru06). $\Gamma_{\gamma 0}$=0.060 *20* from self absorption (1977Me01). $T_{1/2}$: if %Iγ(3944)=78 *28*; $T_{1/2}$=9.7 fs *14* if only the 3944γ deexcites this level.
3964.3? *13*	(2)		0.005 *3*	
4147.8? *9*	(−)		0.040 *7*	
4492.6 *12*	2		0.0086 *15*	J$^\pi$: Q transition to 0$^+$ g.s. $\Gamma^2_{\gamma 0}/\Gamma$: from I_s=8.2 eVb 14 (2006Ru06).
4590.9 *9*	(2)		0.009 *3*	
4633.7 *3*	(1$^-$)	3.7 fs *6*	0.086 *8*	$\Gamma^2_{\gamma 0}/\Gamma$: unweighted average of 0.086 *13* (1977Me01), 0.101 *5* (2000DeZY), and 0.080 *6* (from Is=43 eVb 3, 2006Ru06).

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^{92}Mo(γ,γ′), (pol γ,γ′) 2006Ru06,2000DeZY,1977Me01 (continued)

^{92}Mo Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	$\Gamma_{\gamma 0}^2/\Gamma$ (eV)[@]	Comments
				$\Gamma_{\gamma 0}$=0.112 *8* eV (2000DeZY).
4663.2 *6*	1		0.015 *3*	
4936.1 *6*	(1)		0.034 *7*	
4944.7 *10*	(1)		0.024 *10*	
4969.9? *12*				
5003.6 *4*	$(2)^+$	22 fs *15*	0.010 *2*	$\Gamma_{\gamma 0}$=0.015 *6* eV (2000DeZY).
5283.0 *21*	(1)		0.021 *25*	
5331.7 *9*	(1)		0.016 *6*	
5451.6 *9*	(1)		0.051 *11*	
5527.4 *5*	(1)		0.087 *9*	
5623.8 *10*	(1)		0.028 *18*	
5629.9 *19*	1		0.034 *6*	
5703.4 *4*	1		0.043 *7*	
5789.1 *3*	1		0.075 *9*	
5801.3 *7*	(1)		0.046 *10*	
5841.7 *11*	1		0.048 *10*	
5981.4 *4*	1		0.064 *10*	
6125.92 *20*	$1^{(-)}$		0.663 *13*	
6184.3 *25*	(2)		0.019 *15*	
6191.52 *20*	1^-		0.426 *12*	
6300.2 *3*	1^-		0.231 *16*	
6329.9 *11*	(1)		0.042 *12*	
6362.7 *6*	(1)		0.063 *19*	
6377.6 *3*	1^-		0.706 *19*	
6524.45 *20*	1^-		0.62 *5*	
6566.2 *6*	1		0.103 *22*	
6606.4 *3*	1^-		0.48 *3*	
6645.6 *5*	$1^{(-)}$		0.119 *14*	
6718.5 *9*	(2^-)		0.052 *10*	
6761.4 *4*	$1^{(-)}$		0.17 *4*	
6787.3 *4*	1^-		0.30 *5*	
6818.1 *4*	1^-		0.21 *3*	
6883.1 *4*	1^-		0.301 *26*	
6995.89 *20*	1^-	0.38 fs *5*	1.07 *6*	$\Gamma_{\gamma 0}$=1.13 *7* eV (2000DeZY).
7031.3 *3*	1^-	0.57 fs *12*	0.69 *9*	$\Gamma_{\gamma 0}$=0.74 *12* eV (2000DeZY).
7069.6 *4*	1^-		0.57 *3*	
7076.9 *12*	1		0.127 *25*	
7239.7 *11*	$1^{(-)}$		0.096 *14*	
7271.7 *5*	$^-$		0.19 *8*	
7279.0 *11*	(2)		0.12 *4*	
7384.3 *6*	1		0.14 *4*	
7394.4 *4*	1		0.18 *3*	
7422.5 *11*			0.21 *8*	
7447.2 *16*			0.094 *23*	
7469.1 *4*	$1^{(-)}$	0.7 fs *3*	0.29 *4*	$\Gamma_{\gamma 0}$=0.44 *9* eV (2000DeZY).
7486.6 *5*	$1^{(-)}$		0.49 *5*	
7518.4 *6*	1^-		0.470 *26*	
7573.6 *7*	1		0.23 *3*	
7604.4 *7*	(1)		0.09 *3*	
7619.5 *9*	(1)		0.075 *20*	
7681.1 *5*	1^-		0.321 *24*	
7711.3 *5*	1		0.20 *4*	
7731.7 *5*	1^-		1.24 *4*	
7782.3 *9*	1		0.14 *4*	
7784.0 *6*	(2)		0.087 *24*	
7787.6 *10*	(1)		0.033 *24*	

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^{92}Mo(γ,γ'), (pol γ,γ') 2006Ru06,2000DeZY,1977Me01 (continued)

^{92}Mo Levels (continued)

E(level)†	J$^{\pi}$‡	T$_{1/2}$#	$\Gamma^2_{\gamma 0}/\Gamma$ (eV)@	Comments
7808.1 *11*	1		0.116 *18*	
7831.4 *13*			0.037 *15*	
7837.7 *15*	(2)		0.072 *23*	
7856.6 *5*	1$^-$		0.256 *24*	
7877.6 *10*	(1)	0.34 fs *20*	0.120 *24*	$\Gamma_{\gamma 0}$=0.40 *11* eV (2000DeZY).
7881.8 *5*	1		0.31 *4*	
7894.3 *7*	1		0.054 *8*	
7919.4 *10*	(1)		0.15 *6*	
7931.4 *9*	1		0.185 *23*	
7950.4 *4*	1$^{(+)}$		0.45 *4*	
7963.3 *7*			0.23 *8*	
8007.0 *14*	1$^-$		0.41 *3*	
8042.0 *12*	1	0.66 fs *18*	0.39 *6*	$\Gamma_{\gamma 0}$=0.52 *6* eV (2000DeZY).
8063.4 *11*	1$^{(-)}$		0.46 *4*	
8088.1 *10*	(2)		0.12 *3*	
8096.4 *10*	1		0.61 *6*	
8168.4 *5*	1$^-$		1.24 *5*	
8211.0 *11*	1	0.42 fs *12*	0.58 *8*	$\Gamma_{\gamma 0}$=0.79 *10* eV (2000DeZY).
8220.8 *10*	(1)		0.30 *7*	
8229.9 *7*	1$^-$		0.76 *10*	
8319.5 *6*	1		0.46 *6*	
8355.1 *16*	1		0.25 *4*	
8381.7 *8*	(1)		0.20 *5*	
8422.2 *9*	(−)		0.91 *5*	
8486.5 *14*	1		0.95 *8*	
8501.0 *17*	1		0.32 *4*	
8553.0 *13*	1		0.79 *7*	
8606.6 *8*	(1)		0.27 *17*	
8660.4 *3*	1$^-$		1.13 *11*	
8695.2 *14*	1		0.66 *11*	
8763.4 *5*	1		0.74 *6*	
8774.4 *4*	1$^-$		1.27 *7*	
8791.5 *8*	(1)		0.38 *6*	
8819.8 *6*	1		0.29 *7*	
8834.3 *20*	(1)		0.33 *7*	
8902.5 *9*	1		1.16 *8*	
8926.3 *15*	(1)		0.37 *10*	
8955.5 *6*	1$^{(-)}$		0.59 *6*	
9022.1 *8*			0.64 *21*	
9096.6 *6*	1$^-$		1.37 *7*	
9126.5 *10*	1		0.46 *8*	
9187.0 *8*	1		0.99 *12*	
9206.4 *8*	1$^{(-)}$		0.75 *9*	
9237.4 *8*	1		0.65 *8*	
9280.2 *23*	(2)		0.22 *7*	
9296 *3*	(2)		0.16 *7*	
9337.6 *8*	1		0.62 *7*	
9360.9 *7*	1		0.51 *6*	
9418.9 *12*	(−)		0.40 *18*	
9443.2 *8*	1		0.53 *7*	
9502.8 *8*	1		1.15 *9*	
9559.3 *13*	(1)		0.86 *11*	
9592.3 *10*	(1$^-$)		0.53 *13*	
9646.7 *13*	(1)		0.23 *9*	
9691 *3*			0.36 *22*	
9710.5 *11*	1		0.33 *8*	

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^{92}Mo(γ,γ′), (pol γ,γ′) 2006Ru06,2000DeZY,1977Me01 (continued)

^{92}Mo Levels (continued)

E(level)[†]	Jπ[‡]	$\Gamma^2_{\gamma 0}/\Gamma$ (eV)[@]
9827.0 *17*	1	0.61 *7*
9843.0 *10*	(1)	0.35 *9*

† From least-squares fit to Eγ.
‡ From 2000BaZX based on D or Q character of γ to g.s. and on comparison between polarized and unpolarized photon data, except as noted.
# Calculated by evaluator from quoted $\Gamma^2_{\gamma 0}/\Gamma$ from resonance fluorescence measurements combined with adopted $\Gamma_{\gamma 0}/\Gamma$ or, for 3944 and 4634 levels, with measured $\Gamma_{\gamma 0}$.
@ $\Gamma^2_{\gamma 0}/\Gamma$ (eV) deduced from integrated yield data of 2000DeZY (which assumes observed γ is elastic), except as noted; note that, in the two cases for which the spin has not been determined, the authors assumed J=1 for the purpose of calculating this quantity.
& From 1977Me01, based on γ(θ).

γ(^{92}Mo)

Eγ[†]	Ei(level)	J^π_i	Ef	J^π_f	Mult.[#]	Comments
1509.8 *1*	1509	2+	0.0	0+	Q[&]	Eγ: from 2006Ru06.
2032.8[@b] *3*	3541.8?	2+	1509	2+		Unplaced inelastic transition from 2000DeZY, tentatively placed by evaluator as in Adopted Levels, Gammas. $\Gamma^2_{\gamma 0}/\Gamma$=0.0075 *9* eV for J=2 (2000DeZY) if analyzed as an elastic G.
x2178.8[@] *4*					D	Mult.: Δπ=(no). Inelastic transition. $\Gamma^2_{\gamma 0}/\Gamma$=0.0028 *11* eV for J=1 (2000DeZY) if analyzed as an elastic G.
x2332.2[@] *6*					(D)	Inelastic transition. $\Gamma^2_{\gamma 0}/\Gamma$=0.010 *2* eV for J=1 (2000DeZY) if analyzed as an elastic G.
x2414.0[@] *9*					(Q)	Inelastic transition. $\Gamma^2_{\gamma 0}/\Gamma$=0.0047 *14* eV for J=2 (2000DeZY) if analyzed as an elastic G. Possibly the same as the 2416.9γ; note, however, that 2000DeZY report that the latter is a D, Δπ=(yes) transition.
2416.9[@b] *5*	3925.89	2+	1509	2+	D	Mult.: Δπ=(yes) (2000DeZY) is inconsistent with placement. $\Gamma^2_{\gamma 0}/\Gamma$=0.011 *2* eV (2000DeZY) if analyzed as an elastic G.
2634.2[b] *15*	2634.2?	(1)	0.0	0+	(D)	
x2797.5[@] *11*					(D)	$\Gamma^2_{\gamma 0}/\Gamma$=0.0097 *25* eV for J=1 (2000DeZY) if analyzed as an elastic G. Eγ matches that of known γ deexciting a 4307.6 level, but $J^\pi=(3^-,4^+)$ for that state. Probably not an elastic γ since a level with such low energy should already be known from other reaction studies; also, γ is seen only for bremsstrahlung with 10 MeV endpoint energy.
2838.6[b] *5*	2838.6?	(1)	0.0	0+	(D)	
2922.6[b] *6*	2922.6?	(1)	0.0	0+	(D)	
2983.6[b] *6*	4492.6	2	1509	2+	(D)	γ placed by evaluator, consistent with Adopted Levels, Gammas. $\Gamma^2_{\gamma 0}/\Gamma$=0.0066 *12* eV (2000DeZY) if analyzed as an elastic γ, assuming J=2.
3091.3 *2*	3091.46	2+	0.0	0+	Q[&]	Eγ: from 2006Ru06. Mult.: from relative intensities at 96° and 126° (1977Me01) and Iγ(90°)/Iγ(127°)=1.9 *5* (2006Ru06).
3124.7[@b] *8*	4633.7	(1−)	1509	2+	(D)	$\Gamma^2_{\gamma 0}/\Gamma$=0.009 *3* eV (2000DeZY) if analyzed as an elastic G.
3384.4[@b] *8*	3384.5?	(1)	0.0	0+	(D)	

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^{92}Mo(γ,γ′), (pol γ,γ′) 2006Ru06,2000DeZY,1977Me01 (continued)

γ(^{92}Mo) (continued)

E_γ [†]	$\Gamma_{\gamma0}/\Gamma$ [‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [#]	Comments
3460.9 [@b] *7*		4969.9?		1509	2^+	(D)	γ placed by evaluator, consistent with Adopted Levels, Gammas. $\Gamma^2_{\gamma0}/\Gamma$=0.0091 *26* eV for J=1 (2000DeZY) if analyzed as an elastic G.
3494.1 [@b] *4*		5003.6	$(2)^+$	1509	2^+	(D)	$\Gamma^2_{\gamma0}/\Gamma$=0.011 *2* eV (2000DeZY) if analyzed as an elastic G.
3651.7 [@b] *11*		3651.8?	(1)	0.0	0^+	(D)	
3925.7 *2*	0.67 *16*	3925.89	2^+	0.0	0^+	Q [&]	E_γ: from 2006Ru06. Mult.: from Iγ(90°)/Iγ(127°)=1.9 *7* (2006Ru06).
3943.96 *17*	0.78 *28*	3944.2	1	0.0	0^+	D [&]	E_γ: weighted average of 3944.1 *3* (2000DeZY) and 3943.9 *2* (2006Ru06). $\Gamma_{\gamma0}/\Gamma$: %Iγ(3944)=78 *28* from $\Gamma_{\gamma0}$ (1977Me01) and averaged $\Gamma^2_{\gamma0}/\Gamma$. Iγ(90°)/Iγ(127°)=1.0 *2* (2006Ru06).
3964.2 [@b] *13*		3964.3?	(2)	0.0	0^+	(Q)	
4147.7 [@b] *9*		4147.8?	$(^-)$	0.0	0^+		Mult.: Δπ=(yes).
4473.2 [@b] *11*		5981.4	1	1509	2^+	(D)	Placed by evaluator, based on Eγ and Adopted Levels, Gammas. $\Gamma^2_{\gamma0}/\Gamma$=0.012 *4* eV for J=1 (2000DeZY) if analyzed as an elastic G.
4494.7 *6*		4492.6	2	0.0	0^+	Q	E_γ,Mult.: from 2006Ru06.
4590.8 [@] *9*		4590.9	(2)	0.0	0^+	(Q)	
4633.6 *1*	0.90 *8*	4633.7	(1^-)	0.0	0^+	D [&]	E_γ: from 2006Ru06. Mult.: Iγ(90°)/Iγ(127°)=0.72 *7* (2006Ru06). Δπ=(yes). $\Gamma_{\gamma0}$=0.145 *40* from self absorption (1977Me01). Other $\Gamma_{\gamma0}$;Γ: 0.59 *17* from $\Gamma_{\gamma0}$ of 1977Me01 and averaged $\Gamma^2_{\gamma0}/\Gamma$.
4663.1 *6*		4663.2	1	0.0	0^+	D	
4868.8 [@b] *10*		6377.6	1^-	1509	2^+	(D)	Placed by evaluator, based on Eγ. $\Gamma^2_{\gamma0}/\Gamma$=0.016 *6* eV (2000DeZY) if analyzed as an elastic G.
4936.0 [@] *6*		4936.1	(1)	0.0	0^+	(D)	
4944.6 [@] *10*		4944.7	(1)	0.0	0^+	(D)	
4950.7 [b] *14*	*a*	7469.1	$1^{(-)}$	2518.3	0^+	(D)	$\Gamma^2_{\gamma0}/\Gamma$=0.021 *11* eV (2000DeZY) if analyzed as an elastic G.
4954.2 [b] *12*	*a*	7877.6	(1)	2922.6?	(1)	(D)	$\Gamma^2_{\gamma0}/\Gamma$=0.033 *13* eV (2000DeZY) if analyzed as an elastic G.
5003.5 *4*	0.69 *23*	5003.6	$(2)^+$	0.0	0^+	(Q)	Mult.: Δπ=no.
5282.8 [@] *21*		5283.0	(1)	0.0	0^+	(D)	
5331.5 *9*		5331.7	(1)	0.0	0^+	(D)	
5451.4 [@] *9*		5451.6	(1)	0.0	0^+	(D)	
5487.0 [b] *10*	*a*	6995.89	1^-	1509	2^+	(D)	$\Gamma^2_{\gamma0}/\Gamma$=0.021 *7* eV (2000DeZY) if analyzed as an elastic G.
5519.8 [b] *17*		7031.3	1^-	1509	2^+	(D)	$\Gamma^2_{\gamma0}/\Gamma$=0.033 *7* eV (2000DeZY) if analyzed as an elastic G.
5527.2 *5*		5527.4	(1)	0.0	0^+	(D)	
5623.6 [@] *10*		5623.8	(1)	0.0	0^+	(D)	
5629.7 *19*		5629.9	1	0.0	0^+	D	
5703.2 *4*		5703.4	1	0.0	0^+	D	
5788.9 *3*		5789.1	1	0.0	0^+	D	
5801.1 [@] *7*		5801.3	(1)	0.0	0^+	(D)	

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^{92}Mo(γ,γ′), (pol γ,γ′) 2006Ru06,2000DeZY,1977Me01 (continued)

γ(^{92}Mo) (continued)

E_γ [†]	$\Gamma_{\gamma0}/\Gamma$ [‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [#]	Comments
5841.5[@] *11*		5841.7	1	0.0	0^+	D	
5981.2 *4*		5981.4	1	0.0	0^+	D	
6125.7 *2*		6125.92	$1^{(-)}$	0.0	0^+	D	Mult.: Δπ=(yes).
6184.1[@] *25*		6184.3	(2)	0.0	0^+	(Q)	
6191.3 *2*		6191.52	1^-	0.0	0^+	E1	α(IPF)=0.00234 *4*
6300.0 *3*		6300.2	1^-	0.0	0^+	E1	α(IPF)=0.00236 *4*
6329.7[@] *11*		6329.9	(1)	0.0	0^+	(D)	
6362.5 *6*		6362.7	(1)	0.0	0^+	(D)	
6377.4 *3*		6377.6	1^-	0.0	0^+	E1	α(IPF)=0.00238 *4*
6524.2 *2*		6524.45	1^-	0.0	0^+	E1	α(IPF)=0.00242 *4*
6532.2[@b] *8*		8042.0	1	1509	2^+	D	$\Gamma^2_{\gamma0}/\Gamma$=0.105 *22* eV (2000DeZY) if analyzed as an elastic G.
6565.9[@] *6*		6566.2	1	0.0	0^+	D	
6606.1 *3*		6606.4	1^-	0.0	0^+	E1	α(IPF)=0.00244 *4*
6645.3 *5*		6645.6	$1^{(-)}$	0.0	0^+	D	Mult.: Δπ=(yes).
6701.2[@b] *15*		8211.0	1	1509	2^+	(D)	$\Gamma^2_{\gamma0}/\Gamma$=0.17 *5* eV (2000DeZY) if analyzed as an elastic G.
6718.2[@] *9*		6718.5	(2^-)	0.0	0^+	(M2)	α(IPF)=0.001520 *22* Mult.: Δπ=(yes) for (Q) transition (2000DeZY).
6761.1 *4*		6761.4	$1^{(-)}$	0.0	0^+	D	Mult.: Δπ=(yes).
6787.0 *4*		6787.3	1^-	0.0	0^+	E1	α(IPF)=0.00247 *4*
6817.8 *4*		6818.1	1^-	0.0	0^+	E1	α(IPF)=0.00248 *4*
6882.8 *4*		6883.1	1^-	0.0	0^+	E1	α(IPF)=0.00249 *4*
6995.6 *2*	0.94 *8*	6995.89	1^-	0.0	0^+	E1	α(IPF)=0.00252 *4*
7031.0 *3*	0.93 *10*	7031.3	1^-	0.0	0^+	E1	α(IPF)=0.00253 *4*
7069.3 *4*		7069.6	1^-	0.0	0^+	E1	α(IPF)=0.00254 *4*
7076.6 *12*		7076.9	1	0.0	0^+	D	
7239.4 *11*		7239.7	$1^{(-)}$	0.0	0^+	D	Mult.: Δπ=(yes).
7271.4[@] *5*		7271.7	$^-$	0.0	0^+		Mult.: Δπ=yes.
7278.7 *11*		7279.0	(2)	0.0	0^+	(Q)	
7384.0 *6*		7384.3	1	0.0	0^+	D	
7394.1 *4*		7394.4	1	0.0	0^+	D	
7422.2[@] *11*		7422.5		0.0	0^+		
7446.9 *16*		7447.2		0.0	0^+		
7468.8 *4*	0.66 *16*	7469.1	$1^{(-)}$	0.0	0^+	D	Mult.: Δπ=(yes).
7486.3 *5*		7486.6	$1^{(-)}$	0.0	0^+	D	Mult.: Δπ=(yes).
7518.1 *6*		7518.4	1^-	0.0	0^+	E1	α(IPF)=0.00262 *4*
7573.3[@] *7*		7573.6	1	0.0	0^+	D	
7604.1[@] *7*		7604.4	(1)	0.0	0^+	(D)	
7619.2 *9*		7619.5	(1)	0.0	0^+	(D)	
7680.8 *5*		7681.1	1^-	0.0	0^+	E1	α(IPF)=0.00265 *4*
7711.0 *5*		7711.3	1	0.0	0^+	D	
7731.4 *5*		7731.7	1^-	0.0	0^+	E1	α(IPF)=0.00266 *4*
7781.9 *9*		7782.3	1	0.0	0^+	D	
7783.6[@] *6*		7784.0	(2)	0.0	0^+	(Q)	
7787.2 *10*		7787.6	(1)	0.0	0^+	(D)	
7807.7 *11*		7808.1	1	0.0	0^+	D	
7831.0 *13*		7831.4		0.0	0^+		
7837.3 *15*		7837.7	(2)	0.0	0^+	(Q)	
7856.2 *5*		7856.6	1^-	0.0	0^+	E1	α(IPF)=0.00269 *4*
7877.2 *10*	0.30 *10*	7877.6	(1)	0.0	0^+	(D)	
7881.4 *5*		7881.8	1	0.0	0^+	D	

Continued on next page (footnotes at end of table)

^{92}Mo(γ,γ′), (pol γ,γ′) 2006Ru06,2000DeZY,1977Me01 (continued)

γ(^{92}Mo) (continued)

E_γ[†]	$\Gamma_{\gamma 0}/\Gamma$[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
7893.9 *7*		7894.3	1	0.0	0^+	D	
7919.0 *10*		7919.4	(1)	0.0	0^+	(D)	
7931.0 *9*		7931.4	1	0.0	0^+	D	
7950.0 *4*		7950.4	$1^{(+)}$	0.0	0^+	D	Mult.: Δπ=(no).
7962.9 *7*		7963.3		0.0	0^+		
8006.6 *14*		8007.0	1^-	0.0	0^+	E1	
8041.6 *12*	0.75 *14*	8042.0	1	0.0	0^+	D	
8063.0 *11*		8063.4	$1^{(-)}$	0.0	0^+	D	Mult.: Δπ=(yes).
8087.7 *10*		8088.1	(2)	0.0	0^+	(Q)	
8096.0 *10*		8096.4	1	0.0	0^+	D	
8168.0 *5*		8168.4	1^-	0.0	0^+	E1	
8210.6 *11*	0.73 *13*	8211.0	1	0.0	0^+	D	
8220.4 *10*		8220.8	(1)	0.0	0^+	(D)	
8229.5 *7*		8229.9	1^-	0.0	0^+	E1	
8319.1 *6*		8319.5	1	0.0	0^+	D	
8354.7 *16*		8355.1	1	0.0	0^+	D	
8381.3 *8*		8381.7	(1)	0.0	0^+	(D)	
8421.8 *9*		8422.2	$(^-)$	0.0	0^+		Mult.: Δπ=(yes).
8486.1 *14*		8486.5	1	0.0	0^+	D	
8500.6 *17*		8501.0	1	0.0	0^+	D	
8552.6 *13*		8553.0	1	0.0	0^+	D	
8606.2 *8*		8606.6	(1)	0.0	0^+	(D)	
8660.0 *3*		8660.4	1^-	0.0	0^+	E1	
8694.8 *14*		8695.2	1	0.0	0^+	D	
8763.0 *5*		8763.4	1	0.0	0^+	D	
8774.0 *4*		8774.4	1^-	0.0	0^+	E1	
8791.0 *8*		8791.5	(1)	0.0	0^+	(D)	
8819.3 *6*		8819.8	1	0.0	0^+	D	
8833.8 *20*		8834.3	(1)	0.0	0^+	(D)	
8902.0 *9*		8902.5	1	0.0	0^+	D	
8925.8 *15*		8926.3	(1)	0.0	0^+	(D)	
8955.0 *6*		8955.5	$1^{(-)}$	0.0	0^+	D	Mult.: Δπ=(yes).
9021.6 *8*		9022.1		0.0	0^+		
9096.1 *6*		9096.6	1^-	0.0	0^+	E1	
9126.0 *10*		9126.5	1	0.0	0^+	D	
9186.5 *8*		9187.0	1	0.0	0^+	D	
9205.9 *8*		9206.4	$1^{(-)}$	0.0	0^+	D	Mult.: Δπ=(yes).
9236.9 *8*		9237.4	1	0.0	0^+	D	
9279.7 *23*		9280.2	(2)	0.0	0^+	(Q)	
9295 *3*		9296	(2)	0.0	0^+	(Q)	
9337.1 *8*		9337.6	1	0.0	0^+	D	
9360.4 *7*		9360.9	1	0.0	0^+	D	
9418.4 *12*		9418.9	$(^-)$	0.0	0^+		Mult.: Δπ=(yes).
9442.7 *8*		9443.2	1	0.0	0^+	D	
9502.3 *8*		9502.8	1	0.0	0^+	D	
9558.8 *13*		9559.3	(1)	0.0	0^+	(D)	
9591.8 *10*		9592.3	(1^-)	0.0	0^+	(E1)	
9646.2 *13*		9646.7	(1)	0.0	0^+	(D)	
9690 *3*		9691		0.0	0^+		
9710.0 *11*		9710.5	1	0.0	0^+	D	
9826.4 *17*		9827.0	1	0.0	0^+	D	
9842.4 *10*		9843.0	(1)	0.0	0^+	(D)	

Continued on next page (footnotes at end of table)

^{92}Mo(γ,γ'), (pol γ,γ') 2006Ru06,2000DeZY,1977Me01 (continued)

$\gamma(^{92}Mo)$ (continued)

† From 2000DeZY, assuming the energies given there had already been corrected for recoil, unless noted to the contrary. Note that data are given in 2000BaZX also for 49 of the 142 transitions that were reported in 2000DeZY. For Eγ<7800, data are taken from the 8 MeV bremsstrahlung endpoint energy experiment, unless noted to the contrary; data for higher energy gammas are from the 10 MeV endpoint energy experiment. Eγ for the 6 transitions reported by 2006Ru06 are In excellent agreement with those from 2000DeZY.

‡ $\Gamma_{\gamma 0}/\Gamma$ from table 8.7 of 2000DeZY, except as noted. It is assumed that the only deexcitation gammas for a given level are those reported in this evaluation.

From 2000DeZY, except as noted; $\Delta\pi$ based on comparison between polarized and unpolarized photon data, ΔJ from $\gamma(\theta)$.

@ Observed only in experiment using 10 MeV bremsstrahlung endpoint energy even though Eγ is low enough for line to have been seen in the experiment that used 8 MeV bremsstrahlung endpoint energy. For the lower energy gammas, especially, this might suggest that the observed γ is inelastic rather than elastic. For this reason, the evaluator shows as unplaced any transition in this category for which Eγ<3300 keV, unless there exists some other evidence to support its placement; similarly, transitions in this category with 3300<Eγ<4500 are shown as only tentatively placed.

& From relative intensities at 96° and 126° (1977Me01).

a Branching observed only in the 8 MeV endpoint energy experiment by 2000DeZY.

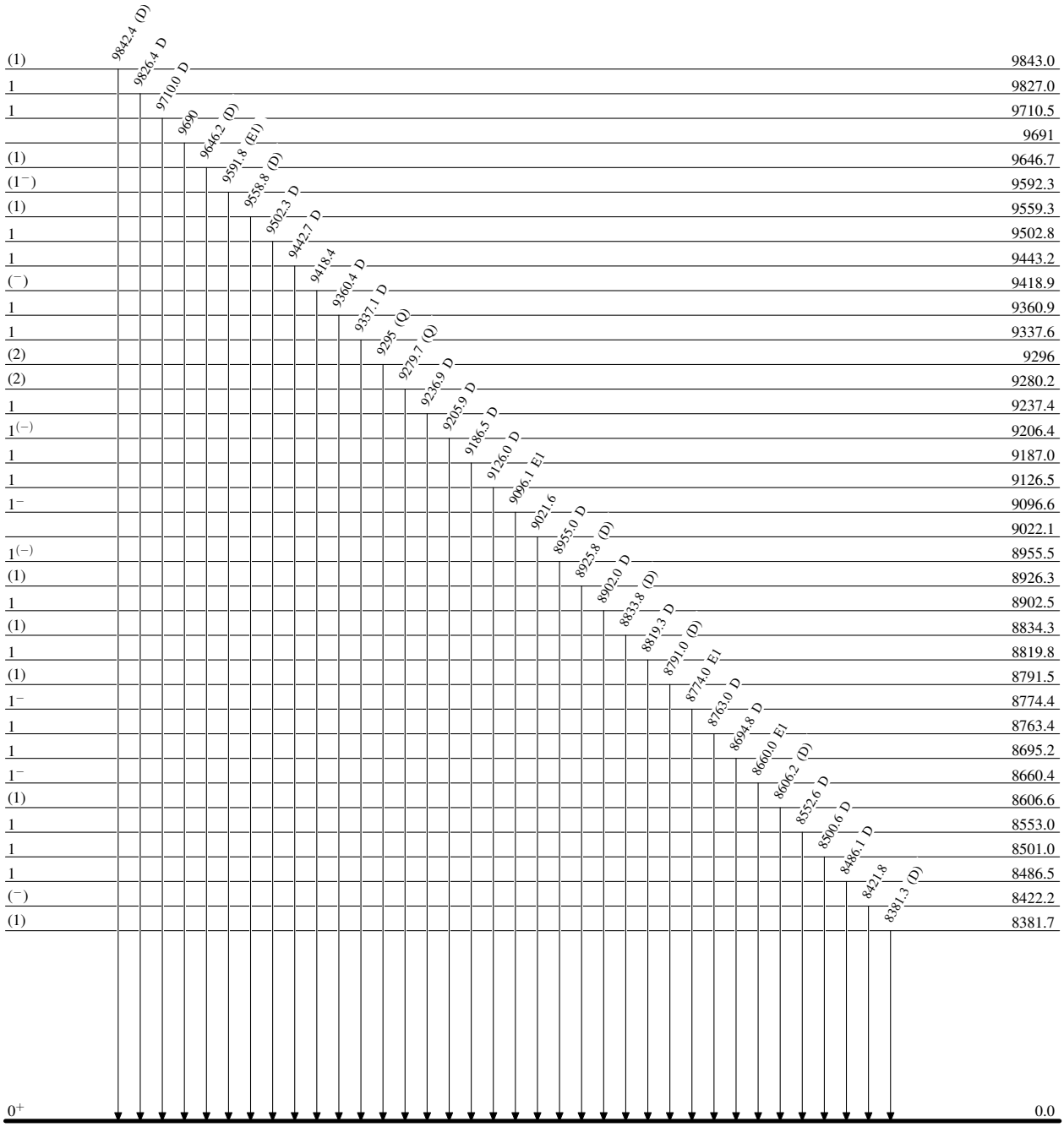
b Placement of transition in the level scheme is uncertain.

x γ ray not placed in level scheme.

^{92}Mo(γ,γ'), (pol γ,γ') 2006Ru06,2000DeZY,1977Me01

Level Scheme

Intensities: $\Gamma_{\gamma 0}/\Gamma$



$^{92}_{42}Mo_{50}$

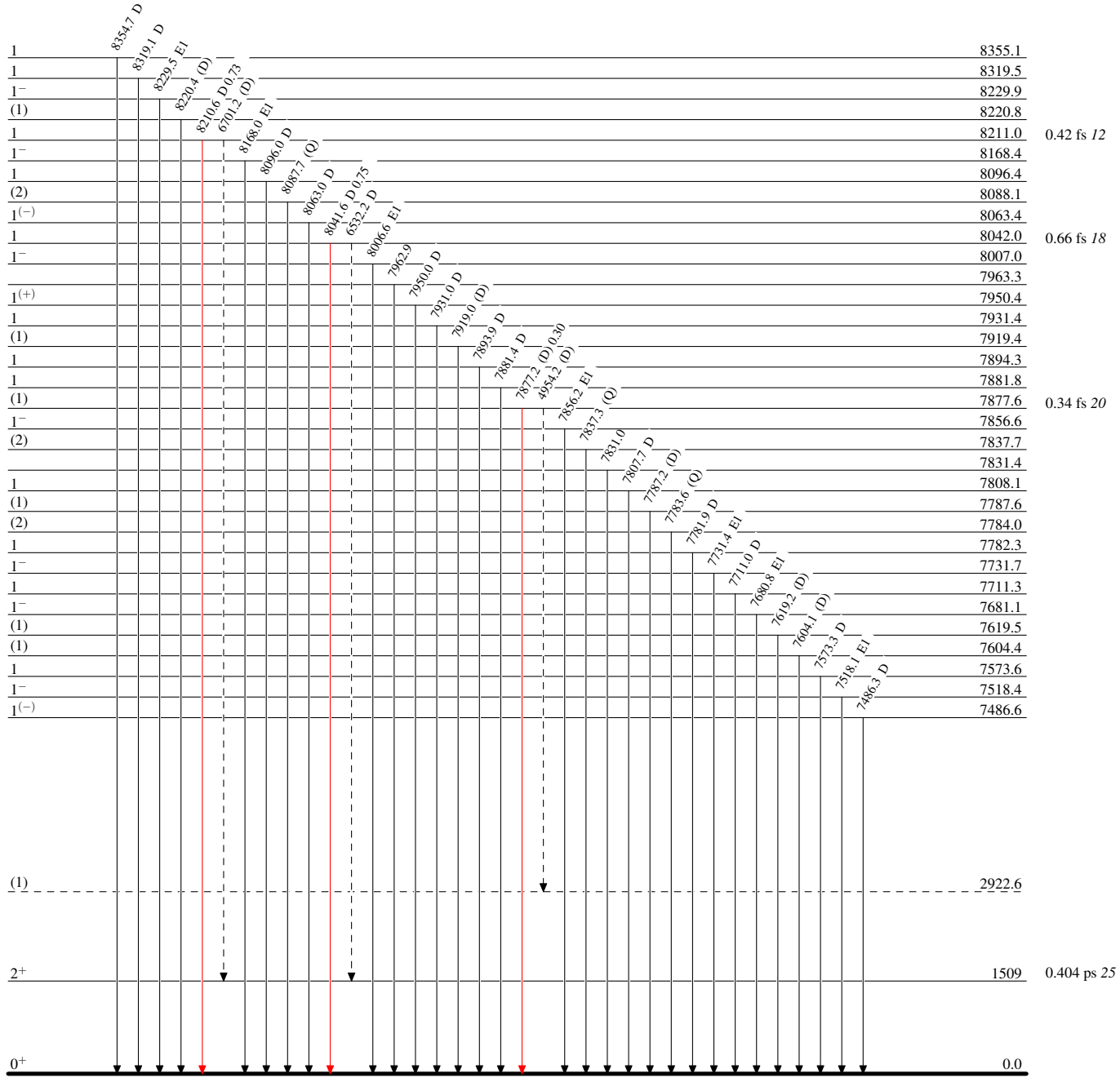
^{92}Mo(γ,γ'), (pol γ,γ') 2006Ru06,2000DeZY,1977Me01

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)

Level Scheme (continued)

Intensities: $\Gamma_{\gamma 0}/\Gamma$



$^{92}_{42}Mo_{50}$

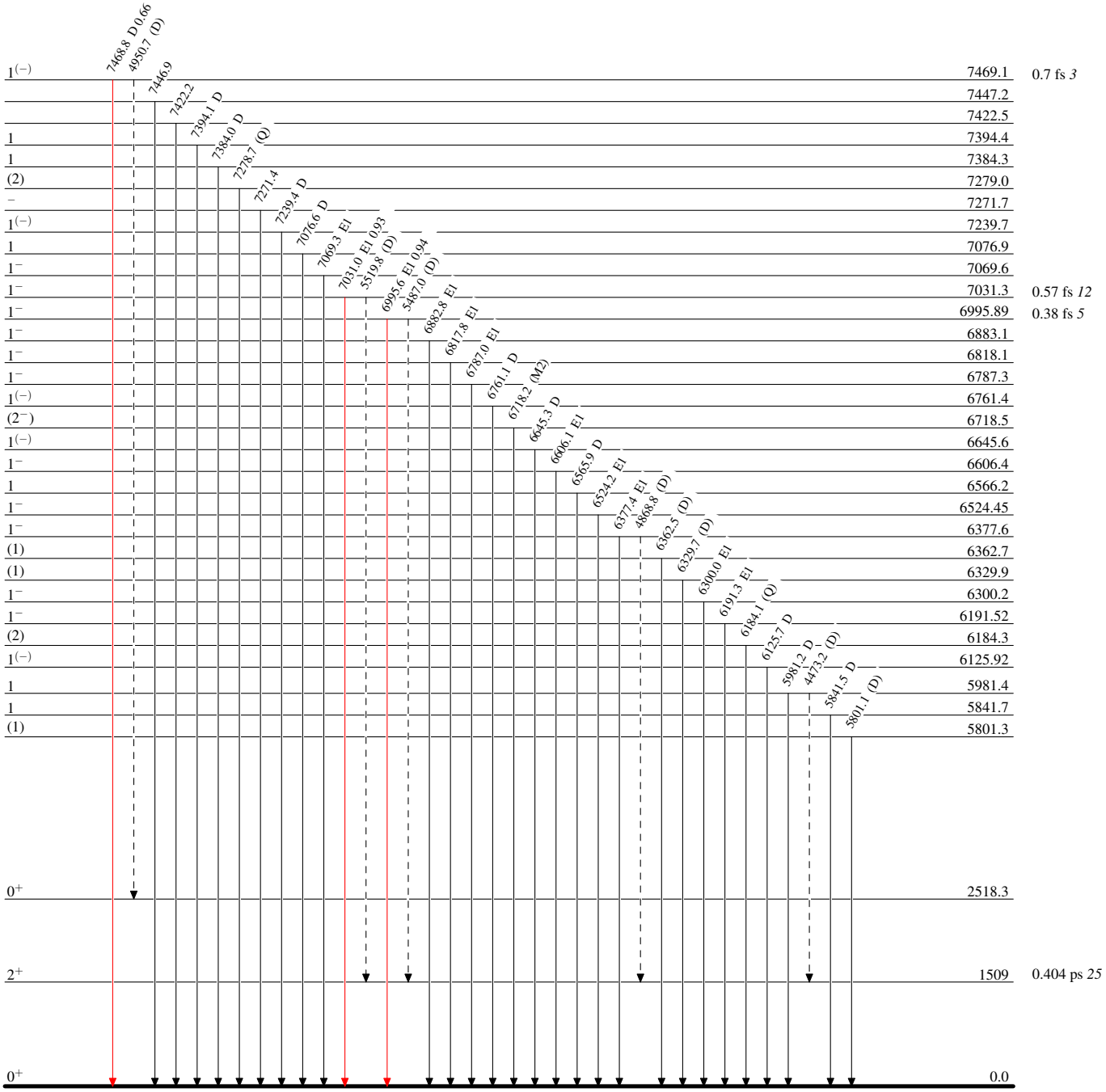
^{92}Mo(γ,γ′), (pol γ,γ′) 2006Ru06,2000DeZY,1977Me01

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)

Level Scheme (continued)

Intensities: $\Gamma_{\gamma 0}/\Gamma$



$^{92}_{42}Mo_{50}$

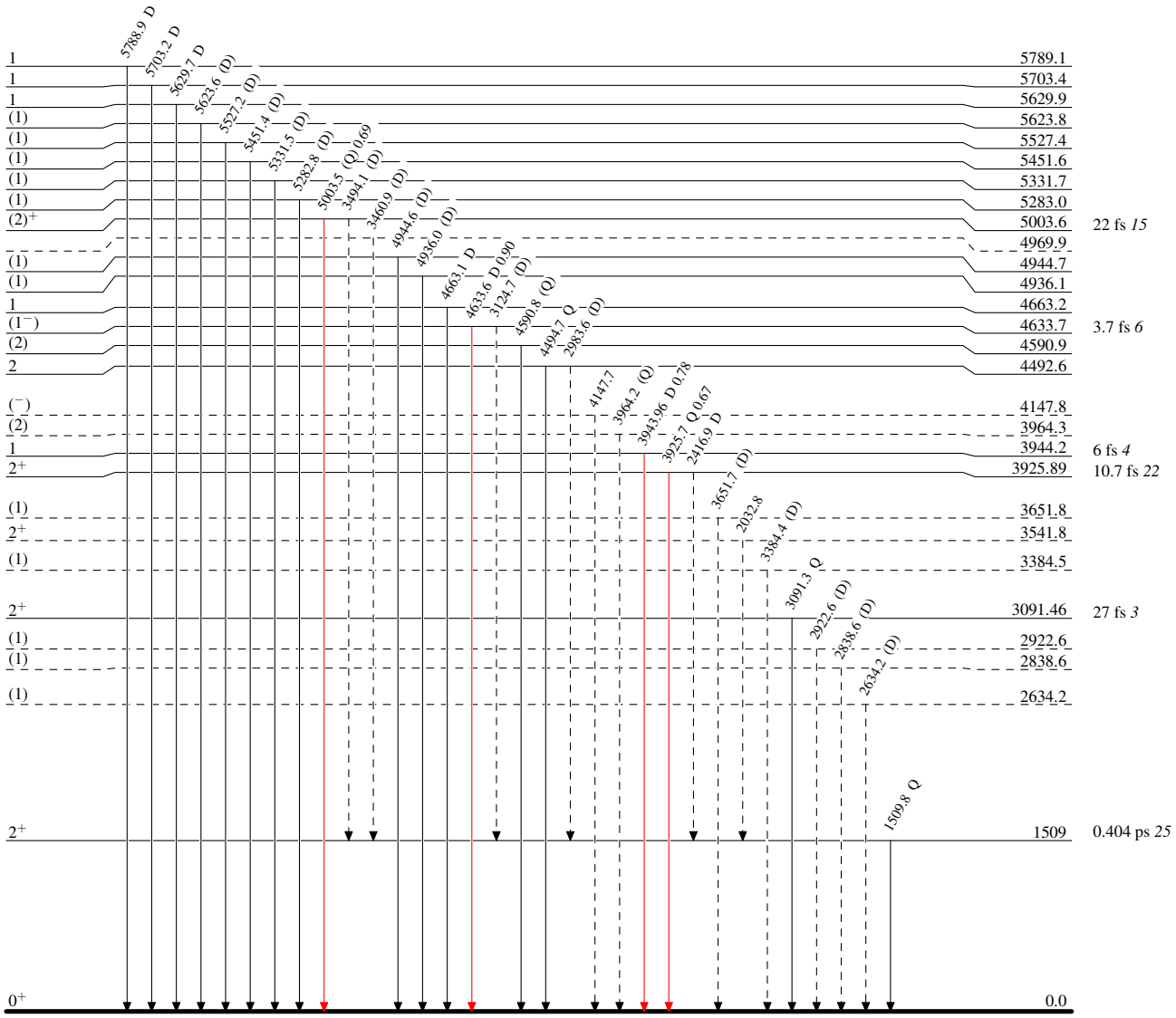
^{92}Mo(γ,γ′), (pol γ,γ′) 2006Ru06,2000DeZY,1977Me01

Level Scheme (continued)

Intensities: $\Gamma_{\gamma 0}/\Gamma$

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)



$^{92}_{42}Mo_{50}$