Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. Abriola(a), A. A. Sonzogni	NDS 109,2501 (2008)	1-Apr-2008

Q(β^-)=−2973 *6*; S(n)=9154.32 *5*; S(p)=9297.5 *5*; Q(α)=−2758.9 *19* 2012Wa38
Note: Current evaluation has used the following Q record −2973 5 *9154.32 5* 9297.6 *5* −2761.5 *20* 2003Au03.
α: Additional information 1.

^{96}Mo Levels

Cross Reference (XREF) Flags

A	^{96}Nb β^- decay	H	^{95}Mo(n,γ) E=25 keV	O	^{98}Mo(p,t), (pol p,t)
B	^{96}Tc ε decay (4.28 d)	I	^{96}Mo(n,n′γ)	P	^{100}Ru(d,^{6}Li)
C	^{96}Tc ε decay (51.5 min)	J	^{96}Mo(p,p′)	Q	^{94}Mo(t,p)
D	^{94}Zr(^{3}He,n)	K	^{96}Mo(d,d′)	R	^{82}Se(^{18}O,4nγ)
E	^{94}Zr(α,2nγ)	L	^{96}Mo(α,α′)	S	^{96}Mo(pol γ,γ′)
F	^{95}Mo(n,γ) E=thermal	M	Coulomb excitation		
G	^{95}Mo(n,γ) E=2 keV	N	^{97}Mo(p,d)		

E(level)[#]	J$^\pi$	T$_{1/2}$	XREF	Comments
0.0[†]	0$^+$	stable	ABCDEFGHIJKLMNOPQRS	<r^2>$^{1/2}$(charge)=4.3841 *8* (2004An14).
778.237[†] *10*	2$^+$	3.67 ps *6*	ABC EFGHIJKLMNOPQR	μ=+0.79 *6* (2001Ma17) J$^\pi$: γ to 0$^+$ is E2. T$_{1/2}$: from B(E2)=0.270 *4* (Coul. ex). Q=−0.20 *8* or +0.04 *8* (1976Pa13). μ measured using transient field method following Coulomb excitation.
1148.13 *7*	0$^+$	61 ps *8*	F IJK MN PQ	T$_{1/2}$: from B(E2)(2$^+$ to 0$^+$)=0.0270 *35* (Coul. ex). J$^\pi$: L=0 in (t,p).
1330? *50*	0$^+$		D	J$^\pi$: L=0 in (^{3}He,n).
1497.787 *10*	2$^+$	0.78 ps *7*	ABC EFGHIJKLMNOPQR	J$^\pi$: L(p,p′)=2. T$_{1/2}$: From B(E2)(0$^+$ to 2$^+$)=0.0156 *13* (Coul. ex), other 0.74 ps *+63−25* from DSAM in (n,n′γ).
1625.905 *16*	2$^+$	>0.90[‡] ps	ABC F I K M OP R	J$^\pi$: $\gamma\gamma(\theta)$ in (n,γ) (1970He27); M1 γ from 3$^+$; γ to 0$^+$.
1628.188[†] *13*	4$^+$	1.2 ps *2*	ABC EFGHIJKLMN PQ	J$^\pi$: L(p,p′)=4. T$_{1/2}$: from B(E2)(2$^+$ to 4$^+$)=0.190 *36* (Coul. ex).
1869.576 *12*	4$^+$	6.4 ps *+28−15*	ABC EFGHIJKLMNOPQR	J$^\pi$: L=4 in (t,p). T$_{1/2}$: from B(E2)(2$^+$ to 4$^+$)=0.0090 *27* (Coul. ex).
1978.450 *14*	3$^+$	>2.29[‡] ps	ABC EFGHI R	J$^\pi$: $\gamma\gamma(\theta)$ in ε decay (1971Ba59); M1 γ to 2$^+$.
2095.77 *4*	2$^+$	97[‡] fs *11*	C F IJ NOP	J$^\pi$: L(p,t)=2.
2219.425 *14*	4$^+$	>0.38[‡] ps	ABC F I N	J$^\pi$: γ from 6$^+$; γ to 2$^+$.
2234.63 *4*	3$^-$	>0.277[‡] ps	FGHIJKLM OPQ	J$^\pi$: L(d,d′)=3.
2398.9 *10*			C k	
2426.14 *4*	2$^+$	0.19[‡] ps *+4−3*	F IJk Q	J$^\pi$: L=2 in (t,p).
2438.477 *15*	5$^+$	>0.139[‡] ps	ABC EF I R	J$^\pi$: $\gamma\gamma(\theta)$ in β^- decay (1971Ba59); M1+E2 γ to 4$^+$.
2440.76[†] *3*	6$^+$	>0.208[‡] ps	AB EF I R	J$^\pi$: stretched E2 cascade in (α,2nγ).
2476 *8*	4$^+$		L Q	J$^\pi$: L=4 in (t,p) and (α,α′).
2481.06 *6*	(4)$^+$	>1.01[‡] ps	C FG IJK OP	J$^\pi$: M1+E2 γ to 3$^+$, E2 γ to 2$^+$.
2501.58 *5*	(1)	97[‡] fs *13*	FG I Q	J$^\pi$: $\gamma(\theta)$ in (n,n′γ), γ to 0$^+$.
2540.46 *5*	(3$^+$)	69[‡] fs *10*	FG IJ	J$^\pi$: (2,3) from $\gamma(\theta)$ in (n,n′γ), γ from 5$^+$.
2594.39 *4*	3$^+$	0.8[‡] ps *+43−4*	C F I	J$^\pi$: M1+E2 γ′s to 2$^+$ and 4$^+$.

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Adopted Levels, Gammas (continued)

^{96}Mo Levels (continued)

E(level)[#]	Jπ	$T_{1/2}$	XREF	Comments
2611.51 *10*		>0.194[‡] ps	C I P	Jπ: L=2 in (d,^{6}Li) for E=2610 consistent with γ decay.
2622.51 *10*	(0)$^+$	0.6[‡] ps *+6–2*	I	Jπ: From σ(E) in (n,n′γ).
2625.19 *13*	4$^+$	0.5[‡] ps *+8–2*	C F IJ L O Q	Jπ: L(p,p′)=4.
2700.21 *6*	2$^+$	103[‡] fs *14*	F I	Jπ: E2 γ to g.s., σ(E) in (n,n′γ).
2712.68 *10*			R	
2734	(5$^-$)		J P	Jπ: L=(5) in (p,p′).
2734.57 *6*	(4,5)$^+$	>0.25[‡] ps	EF I R	Jπ: γ′s to 6$^+$ and 4$^+$. A questionable gamma feeds a 2$^+$ level. The ^{82}Se(^{18}O,4nγ) dataset assigns J=5$^+$, while the remaining datasets assign j=4$^+$.
2735.91 *9*	3$^+$	121[‡] fs *+18–17*	C I	Jπ: log *ft*=6.2 from 4$^+$ ^{96}Tc isomer; M1+E2 γ to 2$^+$.
2742	0$^+$		OPQ	Jπ: L=0 in (t,p), (p,t).
2748.65 *7*	(0$^+$)	0.17[‡] ps *+4–3*	I	Jπ: σ(E) in (n,n′γ).
2755.08 *3*	6$^+$	>0.194[‡] ps	AB EF I L O QR	Jπ: log *ft*=5.0 from 7$^+$ ^{96}Tc g.s.; E2 γ to 4$^+$; however L=(5) in (α,α′) and (t,p).
2787.12 *5*	2$^+$	0.15[‡] ps *+4–3*	FG I Q	Jπ: L=2 in (t,p).
2790.21 *6*	(2,4)[@]	>0.68[‡] ps	F IJK	
2794.50 *6*	1$^+$	31[‡] fs *3*	I S	Jπ: M1 γ to 0$^+$ g.s.
2806.25 *6*	(1)	114[‡] fs *+21–18*	I	Jπ: γ′s to 0$^+$ and 2$^+$.
2818.49 *8*	4$^+$	59[‡] fs *+16–12*	F IJ Q	Jπ: L=4 in (t,p); conflict with L=(3) in (p,p′).
2875.48 *4*	7$^+$,6$^+$		AB E J Q	Jπ: log *ft*=5.6 from 7$^+$ ^{96}Tc g.s.; M1 γ to 6$^+$; L=(4,6) in (p,p′).
2975.28 *7*	5$^+$		A F I	Jπ: log *ft*=7.5 from 6$^+$ ^{96}Nb g.s., primary γ from 2$^+$,3$^+$ capture state.
2978.37[†] *8*	8$^+$		E R	Jπ: stretched E2 cascade in (α,2nγ).
2986.80 *5*	2$^+$	104[‡] fs *+15–14*	F IJ	Jπ: E2 γ to 0$^+$ g.s. and M1+E2 γ to 3$^+$.
3006.45 *10*	0$^+$	90[‡] fs *+19–15*	I Q	Jπ: L=0 in (t,p).
3020 *5*			J Q	J L=5 in (t,p); L=4 in (p,p′).
3024.58 *5*	2$^+$	83[‡] fs *+13–12*	F I KL	Jπ: L=2 in (α,α′).
3053.23 *8*	(4$^+$)	69[‡] fs *+14–11*	F I	Jπ: primary γ from 2$^+$,3$^+$; γ to 6$^+$.
3087.66 *6*	3$^+$	0.33[‡] ps *+53–14*	F I	Jπ: M1+E2 γ′s to 2$^+$ and 4$^+$.
3088 *5*	(4$^+$,5$^-$)		J	Jπ: L=(4,5) in (p,p′).
3089.62 *7*	2,3[@]	66[‡] fs *+10–8*	I	
3134.29 *8*		76[‡] fs *10*	F IJ	
3154.15 *11*	1[@]	73[‡] fs *+10–9*	I	
3178.69 *6*	3$^-$	142[‡] fs *+24–21*	F IJ L Q	Jπ: E1 γ′s to 2$^+$, L=3 in (p,p′) and (α,α′).
3186.81 *19*	4$^+$		F Q	Jπ: primary γ from 2$^+$,3$^+$; γ to 6$^+$.
3202.85 *12*			F	
3211.40 *5*	3$^+$	104[‡] fs *+22–18*	I	Jπ: M1+E2 γ′s to 2$^+$ and 4$^+$.
3232.56 *7*	(3)[@]	236[‡] fs *+10–62*	I	
3241 *12*	4$^+$		J Q	Jπ: L=4 in (t,p).
3255.63 *7*		0.4[‡] ps *+9–2*	I	
3284.97 *9*	2$^+$	0.13[‡] ps *+4–3*	F IJ Q	Jπ: L=2 in (t,p).
3300.38 *7*	1$^+$	8.3[‡] fs *14*	I S	Jπ: M1 γ to 0$^+$ g.s.
3327.87 *7*	(1)	49[‡] fs *+12–10*	I	Jπ: assigned 1 in (n,n′γ), γ′s to 2$^+$ and 0$^+$.
3335.30 *6*	(4$^+$)	0.13[‡] ps *+4–3*	F IJ Q	Jπ: L=4 in (t,p).
3351.67 *6*	2$^+$	36[‡] fs *+10–8*	I	Jπ: E2 γ to 0$^+$ g.s.
3364.0 *3*	[@]	120[‡] fs *+5–3*	I	
3369.98 *10*	(8)$^+$		E R	Jπ: E2 cascade in (α,2nγ).

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Adopted Levels, Gammas (continued)

^{96}Mo Levels (continued)

E(level)[#]	J^π	$T_{1/2}$	XREF	Comments
3373.89 *6*	2^+	23[‡] fs *3*	I Q	J^π: M1+E2 γ's to 2^+, L=2 in (t,p).
3416.82 *6*	4^+	>0.61[‡] ps	F I	J^π: γ's to 2^+ and 6^+.
3418 *12*	5^-		Q	J^π: L=5 in (t,p).
3420 *80*	2^+		L	J^π: L=2 in (α,α').
3421.24 *7*	(1)	52[‡] fs *+9–8*	I	J^π: assigned 1 in (n,n'γ), γ's to 2^+ and 0^+.
3424.90 *8*	1^+	8.3[‡] fs *+28–21*	I S	J^π: M1 γ to 0^+ g.s.
3433.60 *10*	$(4)^+$	97[‡] fs *+21–17*	I P	J^π: E2 γ to 2^+.
3441.92 *9*	4^+		F IJ Q	J^π: L=4 in (t,p), (p,p').
3444.8? *5*			E	
3464.65 *7*	(3)	44[‡] fs *+7–6*	I	J^π: assigned3 in (n,n'γ), γ's to 2^+ and 4^+.
3472.20 *10*	2^+	66[‡] fs *+19–14*	IJ Q	J^π: L=2 in (t,p).
3472.65? *14*	$(7)^+$		E R	J^π: E2 γ to $(4,5)^+$, M1 γ to 6^+.
3530.99 *8*	1,2,3[@]	43[‡] fs *6*	I	
3540.88 *7*	(3)[@]	83[‡] fs *+22–17*	I	
3551.4 *3*	3		F J	J^π: L=3 in (p,p'), but (M1+E2) γ to 4^+.
3556 *10*	5^-		Q	J^π: L=5 in (t,p).
3573.28 *7*	(1)	87[‡] fs *+24–18*	I	J^π: assigned 1 in (n,n'γ), γ's to 2^+ and 0^+.
3597 *5*	2^+		J Q	J^π: L=2 in (p,p').
3599.57 *9*	1^-	10.4[‡] fs *21*	I S	J^π: E1 γ to 0^+ g.s.
3610.48 *7*	2,3[@]	104[‡] fs *+21–17*	I	
3623.19 *10*	(3^+)[@]	>0.236[‡] ps	I	
3646 *10*			Q	E(level): complex state.
3668.82 *8*	3^+	44[‡] fs *+9–8*	I	J^π: M1+E2 γ to 2^+, 4^+.
3683 *12*			Q	E(level): complex state.
3690 *80*	(2^+)		L	J^π: L=(2) in (α,α').
3694 *5*	5^-		J	J^π: L=5 in (p,p').
3709 *12*	2^+		Q	J^π: L=2 in (t,p).
3736 *5*	4^+		J Q	J^π: L=4 in (t,p).
3786.93 *13*	$(10)^+$		E R	J^π: stretched E2 cascade to 8^+.
3800 *5*			J	
3847 *12*			Q	
3866 *5*			J Q	J^π: L=(5) in (t,p), L=(4) in (p,p').
3895.4 *10*	1^-		S	J^π: E1 γ to 0^+ g.s.
3915.69 *12*	$(9)^+$		E R	J^π: E2 γ to $(7)^+$, M1 γ to $(8)^+$.
3965 *5*	(4^+)		J Q	J^π: L=(4) in (p,p').
4038 *5*	(3^-)		J	J^π: L=(3) in (p,p').
4098 *5*	4^+		J Q	J^π: L=4 in (t,p).
4215 *5*			J Q	J^π: L=4 in (t,p), L=(3) in (p,p').
4245.11 *16*	10^+		R	J^π: E2 γ to 8^+.
4280 *5*			J	
4469 *5*			J Q	
4532.84 *24*	$(11)^+$		E R	J^π: M1+E2 γ to $(10)^+$.
4583.55 *15*	$(12)^+$		E R	J^π: E2 γ to $(10)^+$.
4603 *5*			J Q	
4714 *12*	1^-		Q	J^π: L=1 in (t,p).
4795.12 *14*	$(11)^+$		E R	J^π: M1 γ to 10^+, E2 γ to $(9)^+$.
5132.20 *18*	$(12)^+$		R	J^π: E2 γ to 10^+,
5640.64 *21*	$(13)^+$		R	J^π: M1+E2 γ to $(12)^+$.
5654.61 *16*	$(13)^+$		R	J^π: E2 γ to $(11)^+$.
5811.43 *22*	$(14)^+$		R	J^π: M1 γ to $(13)^+$, E2 γ to $(12)^+$.
6300 *50*	0^+		D	J^π: L=0 in (^{3}He,n).
6414.52 *19*	$(15)^+$		R	J^π: E2 γ to $(13)^+$.

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Adopted Levels, Gammas (continued)

^{96}Mo Levels (continued)

E(level)[#]	J^π	XREF	Comments
6709.8 *4*	$(15)^+$	R	J^π: M1+E2 γ to $(14)^+$.
7505.5 *6*	$(17)^+$	R	J^π: E2 γ to $(15)^+$.
7554.1 *4*		R	
8424.0 *7*	$(19)^+$	R	J^π: E2 γ to $(17)^+$.
9466.9 *9*	(20^+)	R	J^π: (M1) γ to $(19)^+$.
9882.4 *13*		R	

† Band(A): g.s. sequence.
‡ From DSAM in (n,n′γ).
# From least-squares fit to Eγ when available.
@ From (n,n′γ), tentative assignments based on γ′s to levels of known J^π, σ(E).

Adopted Levels, Gammas (continued)

$\gamma(^{96}Mo)$

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
778.237	2^+	778.223 *14*	100	0.0	0^+	E2†		0.001410 *20*	α(K)=0.001238 *18*; α(L)=0.0001426 *20*; α(M)=2.55×10^{-5} *4* α(O)=2.11×10^{-7} *3*; α(N+..)=4.07×10^{-6} *6* B(E2)(W.u.)=20.7 *4* E_γ: weighted average of 778.224 *15* (^{96}Nb β^- decay), 778.22 *4* (^{96}Tc ε decay (4.28 d)), 778.3 *2* (^{94}Zr(α,2nγ)), 778.26 *10* (^{95}Mo(n,γ) E=thermal), 778.28 *10* (^{96}Mo(n,n′γ)), 778.1 *1* (^{82}Se(^{18}O,4nγ)).
1148.13	0^+	369.80 *11*	100	778.237	2^+	E2†		0.01210	α(K)=0.01052 *15*; α(L)=0.001310 *19*; α(M)=0.000234 *4*; α(N)=3.50×10^{-5} *5* α(O)=1.737×10^{-6} *25*; α(N+..)=3.67×10^{-5} *6* B(E2)(W.u.)=51 *7* E_γ: weighted average of 369.67 *12* (^{95}Mo(n,γ) E=th) and 369.89 *10* (^{96}Mo(n,n′γ)).
1497.787	2^+	719.560 *16*	100.0 *5*	778.237	2^+	M1+E2‡	+0.44 *+3−4*	0.001672 *24*	α(K)=0.001471 *21*; α(L)=0.0001661 *24*; α(M)=2.97×10^{-5} *5* α(O)=2.56×10^{-7} *4*; α(N+..)=4.77×10^{-6} *7* B(E2)(W.u.)=16.4 *24*; B(M1)(W.u.)=0.045 *5* E_γ: weighted average of 719.562 *17* (^{96}Nb β^- decay), 719.5 *2* (^{96}Tc ε decay (4.28 d)), 719.55 *5* (^{96}Tc ε decay (51.5 min)), 719.9 *5* (^{94}Zr(α,2nγ)), 719.53 *11* (^{95}Mo(n,γ) E=thermal), 719.55 *10* (^{96}Mo(n,n′γ)), 719.4 *4* (^{82}Se(^{18}O,4nγ)). I_γ: weighted average of 100.0 *13* (^{96}Nb β^- decay), 100.0 *6* (^{96}Mo(n,n′γ)). δ: from ^{95}Mo(n,γ) E=thermal.
		1497.801 *14*	42.3 *16*	0.0	0^+	E2†		0.000409 *6*	α(K)=0.000288 *4*; α(L)=3.20×10^{-5} *5*; α(M)=5.71×10^{-6} *8*; α(N)=8.70×10^{-7} *13* α(O)=4.95×10^{-8} *7*; α(N+..)=8.34×10^{-5} *12* B(E2)(W.u.)=1.10 *11* E_γ: weighted average of 1497.807 *15* (^{96}Nb β^- decay), 1497.72 *10* (^{96}Tc ε decay (4.28 d)), 1497.65 *9* (^{96}Tc ε decay (51.5 min)), 1497.84 *11* (^{95}Mo(n,γ) E=thermal), 1497.76 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 47.9 *10* (^{96}Nb β^- decay), 47 *4* (^{96}Tc ε decay (4.28 d)), 40.5 *19* (^{96}Tc ε decay (51.5 min)), 42.2 *22* (^{95}Mo(n,γ) E=thermal), 40.4 *6* (^{96}Mo(n,n′γ)).
1625.905	2^+	128.0 *4*	1.4 *8*	1497.787	2^+				E_γ: observed only in ^{96}Nb β^- decay.

$^{96}_{42}Mo_{54}$-5

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
1625.905	2+	847.689 *19*	100.0 *2*	778.237	2+	M1+E2†	−1.05 *+9−10*	0.001146 *16*	α(K)=0.001008 *15*; α(L)=0.0001142 *16*; α(M)=2.04×10^{-5} *3* α(O)=1.742×10^{-7} *25*; α(N+..)=3.27×10^{-6} *5* B(E2)(W.u.)<28; B(M1)(W.u.)<0.019 E_γ: weighted average of 847.69 *2* (^{96}Nb β^- decay), 847.7 *1* (^{96}Tc ε decay (4.28 d)), 847.6 *3* (^{96}Tc ε decay (51.5 min)), 847.67 *11* (^{95}Mo(n,γ) E=thermal), 849.7 *1* (^{82}Se(^{18}O,4nγ)). δ: from ^{95}Mo(n,γ) E=thermal.
		1625.86 *4*	9.4 *6*	0.0	0+	E2†		0.000412 *6*	α(K)=0.000245 *4*; α(L)=2.72×10^{-5} *4*; α(M)=4.85×10^{-6} *7*; α(N)=7.39×10^{-7} *11* α(O)=4.22×10^{-8} *6*; α(N+..)=0.0001349 *19* B(E2)(W.u.)<0.18 E_γ: weighted average of 1625.90 *5* (^{96}Nb β^- decay), 1625.7 *1* (^{96}Tc ε decay (4.28 d)), 1625.8 *4* (^{96}Tc ε decay (51.5 min)), 1625.7 *3* (^{95}Mo(n,γ) E=thermal), 1625.88 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 13.6 *8* (^{96}Nb β^- decay), 10.6 *11* (^{96}Tc ε decay (51.5 min)), 9.2 *5* (^{95}Mo(n,γ) E=thermal), 9.05 *22* (^{96}Mo(n,n′γ)).
1628.188	4+	849.922 *12*	100	778.237	2+	E2†		0.001134 *16*	α(K)=0.000996 *14*; α(L)=0.0001141 *16*; α(M)=2.04×10^{-5} *3* α(O)=1.704×10^{-7} *24*; α(N+..)=3.26×10^{-6} *5* B(E2)(W.u.)=41 *7* E_γ: weighted average of 849.929 *13* (^{96}Nb β^- decay), 849.86 *4* (^{96}Tc ε decay (4.28 d)), 849.85 *10* (^{96}Tc ε decay (51.5 min)), 849.8 *2* (^{94}Zr(α,2nγ)), 849.95 *11* (^{95}Mo(n,γ) E=thermal), 849.97 *10* (^{96}Mo(n,n′γ)).
1869.576	4+	241.377 *15*	8.4 *5*	1628.188	4+	M1+E2†	+0.024 *5*	0.0235	α(K)=0.0206 *3*; α(L)=0.00239 *4*; α(M)=0.000427 *6*; α(N)=6.50×10^{-5} *9*; α(O)=3.64×10^{-6} *6* α(N+..)=0.00012 *5* B(E2)(W.u.)=0.18 *+9−11*; B(M1)(W.u.)=0.018 *+5−8* E_γ: weighted average of 241.377 *15* (^{96}Nb β^- decay), 241.6 *2* (^{96}Tc ε decay (4.28 d)), 241.4 *2* (^{96}Tc ε decay (51.5 min)), 241.6 *5* (^{94}Zr(α,2nγ)), 241.2 *2* (^{95}Mo(n,γ) E=thermal), 241.36 *10* (^{96}Mo(n,n′γ)), 242.0 *1* (^{82}Se(^{18}O,4nγ)). I_γ: weighted average of 7.2 *8* (^{96}Nb β^- decay), 12.6 *19* (^{96}Tc ε decay (51.5 min)), 8.5 *22* (^{94}Zr(α,2nγ)), 8.8 *5*

$^{96}_{42}Mo_{54}$-6

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
									(^{95}Mo(n,γ) E=thermal), 8.23 *22* (^{96}Mo(n,n′γ)), 17.5 *16* (^{82}Se(^{18}O,4nγ)).
1869.576	4$^+$	371.807 *21*	5.3 *5*	1497.787	2$^+$	E2‡		0.01189	α(K)=0.01034 *15*; α(L)=0.001286 *18*; α(M)=0.000230 *4*; α(N)=3.44×10^{-5} *5* α(O)=1.708×10^{-6} *24*; α(N+..)=3.61×10^{-5} *5* B(E2)(W.u.)=22 *+6−10* E_γ: weighted average of 371.807 *15* (^{96}Nb β$^-$ decay), 371.8 *2* (^{96}Tc ε decay (4.28 d)), 371.5 *2* (^{96}Tc ε decay (51.5 min)), 371.63 *13* (^{95}Mo(n,γ) E=thermal), 372.0 *1* (^{82}Se(^{18}O,4nγ)). I_γ: weighted average of 5.41 *18* (^{96}Nb β$^-$ decay), 6.4 *18* (^{96}Tc ε decay (4.28 d)), 4.4 *9* (^{96}Tc ε decay (51.5 min)), 4.8 *3* (^{95}Mo(n,γ) E=thermal), 25 *3* (^{82}Se(^{18}O,4nγ)).
		1091.344 *11*	100.00 *22*	778.237	2$^+$	E2(+M3)†	−0.05 *5*	0.000641 *21*	α(K)=0.000564 *18*; α(L)=6.37×10^{-5} *22*; α(M)=1.14×10^{-5} *4*; α(N)=1.73×10^{-6} *6* α(O)=9.59×10^{-8} *14*; α(N+..)=1.80×10^{-6} *3* B(E2)(W.u.)=1.9 *+5−9*; B(M3)(W.u.)=3.E+4 *+6−3* E_γ: weighted average of 1091.349 *12* (^{96}Nb β$^-$ decay), 1091.30 *4* (^{96}Tc ε decay (4.28 d)), 1091.30 *8* (^{96}Tc ε decay (51.5 min)), 1091.2 *5* (^{94}Zr(α,2nγ)), 1091.30 *11* (^{95}Mo(n,γ) E=thermal), 1091.38 *10* (^{96}Mo(n,n′γ)), 1091.4 *6* (^{82}Se(^{18}O,4nγ)). I_γ: weighted average of 100 *3* (^{96}Nb β$^-$ decay), 100 *7* (^{96}Tc ε decay (4.28 d)), 100 *8* (^{96}Tc ε decay (51.5 min)), 100 *10* (^{94}Zr(α,2nγ)), 100 *6* (^{95}Mo(n,γ) E=thermal), 100.00 *22* (^{96}Mo(n,n′γ)), 100 *10* (^{82}Se(^{18}O,4nγ)). δ: from ^{96}Tc ε decay (4.28 d).
1978.450	3$^+$	108.94 *11*	0.22 *7*	1869.576	4$^+$				E_γ: weighted average of 108.95 *11* (^{96}Nb β$^-$ decay), 108.8 *5* (^{82}Se(^{18}O,4nγ)). I_γ: from ^{96}Nb β$^-$ decay.
		350.06 *3*	8.2 *23*	1628.188	4$^+$	M1+E2†		0.012 *3*	α(K)=0.0103 *23*; α(L)=0.0012 *4*; α(M)=0.00022 *6*; α(N)=3.4×10^{-5} *9*; α(O)=1.7×10^{-6} *4* α(N+..)=3.5×10^{-5} *9* E_γ: weighted average of 350.053 *19* (^{96}Nb β$^-$ decay), 350.1 *5* (^{96}Tc ε decay (4.28 d)), 350.32 *15* (^{96}Tc ε decay (51.5 min)), 349.7 *2* (^{95}Mo(n,γ) E=thermal), 350.05 *10* (^{96}Mo(n,n′γ)), 350.6 *2* (^{82}Se(^{18}O,4nγ)). I_γ: weighted average of 5.3 *4* (^{96}Nb β$^-$ decay), 5.3 *3* (^{96}Tc ε

$^{96}_{42}Mo_{54}$-7

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
									decay (51.5 min)), 5.2 *6* (^{95}Mo(n,γ) E=thermal), 13.6 *3* (^{96}Mo(n,n′γ)).
1978.450	3$^+$	352.56 *3*	4.74 *22*	1625.905	2$^+$	M1+E2†		0.012 *3*	α(K)=0.0101 *22*; α(L)=0.0012 *4*; α(M)=0.00022 *6*; α(N)=3.3×10^{-5} *9*; α(O)=1.7×10^{-6} *4* α(N+..)=3.5×10^{-5} *9* E_γ: weighted average of 352.56 *3* (^{96}Nb β$^-$ decay), 352.5 *3* (^{96}Tc ε decay (4.28 d)), 352.50 *15* (^{96}Tc ε decay (51.5 min)), 352.3 *2* (^{95}Mo(n,γ) E=thermal), 352.61 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 4.15 *19* (^{96}Nb β$^-$ decay), 5.2 *3* (^{96}Tc ε decay (51.5 min)), 5.5 *6* (^{95}Mo(n,γ) E=thermal), 4.97 *16* (^{96}Mo(n,n′γ)).
		480.696 *24*	30.2 *18*	1497.787	2$^+$	M1+E2†	+0.12 *4*	0.00426 *6*	α(K)=0.00374 *6*; α(L)=0.000425 *7*; α(M)=7.60×10^{-5} *11*; α(N)=1.157×10^{-5} *17*; α(O)=6.57×10^{-7} *10* α(N+..)=1.223×10^{-5} *18* B(E2)(W.u.)<1.8; B(M1)(W.u.)<0.018 E_γ: weighted average of 480.705 *17* (^{96}Nb β$^-$ decay), 481.0 *5* (^{96}Tc ε decay (4.28 d)), 480.70 *5* (^{96}Tc ε decay (51.5 min)), 480.5 *2* (^{95}Mo(n,γ) E=thermal), 480.42 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 29.23 *24* (^{96}Nb β$^-$ decay), 22 *8* (^{96}Tc ε decay (4.28 d)), 28.9 *14* (^{96}Tc ε decay (51.5 min)), 25 *4* (^{95}Mo(n,γ) E=thermal), 42.1 *8* (^{96}Mo(n,n′γ)).
		1200.227 *13*	100.0 *4*	778.237	2$^+$	M1+E2†	+0.89 *10*	0.000539 *8*	α(K)=0.000469 *7*; α(L)=5.23×10^{-5} *8*; α(M)=9.33×10^{-6} *14*; α(N)=1.422×10^{-6} *21* α(O)=8.11×10^{-8} *12*; α(N+..)=8.37×10^{-6} *15* B(E2)(W.u.)<1.3; B(M1)(W.u.)<0.0024 E_γ: weighted average of 1200.231 *13* (^{96}Nb β$^-$ decay), 1200.17 *8* (^{96}Tc ε decay (4.28 d)), 1200.15 *8* (^{96}Tc ε decay (51.5 min)), 1200.1 *5* (^{94}Zr(α,2nγ)), 1200.1 *4* (^{95}Mo(n,γ) E=thermal), 1200.20 *10* (^{96}Mo(n,n′γ)), 1200.1 *3* (^{82}Se(^{18}O,4nγ)). I_γ: weighted average of 100.0 *5* (^{96}Nb β$^-$ decay), 100 *8* (^{96}Tc ε decay (4.28 d)), 100 *5* (^{96}Tc ε decay (51.5 min)), 100 *9* (^{95}Mo(n,γ) E=thermal), 100.0 *10* (^{96}Mo(n,n′γ)).
2095.77	2$^+$	947.8 *3*	3.2 *7*	1148.13	0$^+$				E_γ,I_γ: from ^{95}Mo(n,γ), E=th.
		1317.43 *8*	100.0 *1*	778.237	2$^+$	M1+E2†	−0.09 *2*	0.000473 *7*	α(K)=0.000395 *6*; α(L)=4.38×10^{-5} *7*; α(M)=7.82×10^{-6} *11*; α(N)=1.193×10^{-6} *17*

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	α	Comments
								α(O)=6.88×10^{-8} *10*; α(N+..)=2.60×10^{-5} *4* B(E2)(W.u.)=0.43 *20*; B(M1)(W.u.)=0.094 *11* E_γ: weighted average of 1317.4 *4* (^{96}Tc ε decay (51.5 min)), 1317.33 *12* (^{95}Mo(n,γ) E=thermal), 1317.50 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{96}Mo(n,n′γ).
2095.77	2$^+$	2095.59[e] *10*	1.52 *10*	0.0	0$^+$	E2[†]	0.000525 *8*	α(K)=0.0001524 *22*; α(L)=1.680×10^{-5} *24*; α(M)=2.99×10^{-6} *5* α(O)=2.62×10^{-8} *4*; α(N+..)=0.000353 *5* B(E2)(W.u.)=0.080 *11* E_γ,I_γ: from ^{96}Mo(n,n′γ).
2219.425	4$^+$	241.2 *2*	71 *4*	1978.450	3$^+$			E_γ,I_γ: from ^{95}Mo(n,γ), E=th.
		350.05 *3*	64 *10*	1869.576	4$^+$	(M1,E2)[‡]	0.012 *3*	α(K)=0.0103 *23*; α(L)=0.0013 *4*; α(M)=0.00022 *6*; α(N)=3.4×10^{-5} *9*; α(O)=1.7×10^{-6} *4* α(N+..)=3.5×10^{-5} *9* E_γ: weighted average of 350.053 *19* (^{96}Nb β$^-$ decay), 349.9 *2* (^{96}Tc ε decay (4.28 d)), 349.7 *2* (^{95}Mo(n,γ) E=thermal). I_γ: weighted average of 47 *9* (^{96}Nb β$^-$ decay), 58 *17* (^{96}Tc ε decay (4.28 d)), 78 *8* (^{95}Mo(n,γ) E=thermal).
		591.23 *5*	97 *5*	1628.188	4$^+$	(M1,E2)[‡]	0.00277 *17*	α(K)=0.00243 *14*; α(L)=0.000280 *22*; α(M)=5.0×10^{-5} *4*; α(N)=7.6×10^{-6} *6*; α(O)=4.18×10^{-7} *17* α(N+..)=8.0×10^{-6} *6* E_γ: weighted average of 591.24 *5* (^{96}Nb β$^-$ decay), 591.3 *6* (^{96}Tc ε decay (4.28 d)), 591.19 *13* (^{95}Mo(n,γ) E=thermal). I_γ: weighted average of 92 *8* (^{96}Nb β$^-$ decay), 90 *50* (^{96}Tc ε decay (4.28 d)), 100 *6* (^{95}Mo(n,γ) E=thermal).
		593.23 *11*	41 *8*	1625.905	2$^+$			E_γ: weighted average of 593.25 *14* (^{96}Nb β$^-$ decay), 593.2 *2* (^{95}Mo(n,γ) E=thermal). I_γ: weighted average of 30 *8* (^{96}Nb β$^-$ decay), 47 *6* (^{95}Mo(n,γ) E=thermal).
		721.632 *18*	100.0 *9*	1497.787	2$^+$	E2[†]	0.001710 *24*	α(K)=0.001500 *21*; α(L)=0.0001739 *25*; α(M)=3.11×10^{-5} *5* α(O)=2.56×10^{-7} *4*; α(N+..)=4.95×10^{-6} *7* B(E2)(W.u.)<72 E_γ: weighted average of 721.629 *19* (^{96}Nb β$^-$ decay), 721.5 *3* (^{96}Tc ε decay (4.28 d)), 721.57 *15* (^{95}Mo(n,γ) E=thermal), 721.77 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 100 *6* (^{96}Nb β$^-$ decay), 100 *40* (^{96}Tc ε decay (4.28 d)), 99 *10* (^{95}Mo(n,γ) E=thermal), 100.0 *9* (^{96}Mo(n,n′γ)).
		1441.123 *23*	32 *4*	778.237	2$^+$	E2[†]	0.000416 *6*	α(K)=0.000311 *5*; α(L)=3.47×10^{-5} *5*; α(M)=6.18×10^{-6} *9*;

$^{96}_{42}Mo_{54}$-9

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
									α(N)=9.41×10^{-7} *14* α(O)=5.35×10^{-8} *8*; α(N+..)=6.41×10^{-5} *9* B(E2)(W.u.)<0.72 E_γ: weighted average of 1441.129 *24* (^{96}Nb β^- decay), 1441.14 *10* (^{96}Tc ε decay (4.28 d)), 1440.9 *2* (^{95}Mo(n,γ) E=thermal), 1441.05 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 43.4 *19* (^{96}Nb β^- decay), 45 *5* (^{96}Tc ε decay (4.28 d)), 55 *6* (^{95}Mo(n,γ) E=thermal), 28.0 *9* (^{96}Mo(n,n′γ)).
2234.63	3$^-$	365.04 *11*	9.3 *4*	1869.576	4$^+$	E1†		0.00326 *5*	α(K)=0.00287 *4*; α(L)=0.000323 *5*; α(M)=5.75×10^{-5} *8*; α(N)=8.71×10^{-6} *13*; α(O)=4.80×10^{-7} *7* α(N+..)=9.19×10^{-6} *13* B(E1)(W.u.)<0.0010 E_γ: weighted average of 364.90 *13* (^{95}Mo(n,γ) E=thermal), 365.13 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 9.4 *8* (^{95}Mo(n,γ) E=thermal), 9.3 *4* (^{96}Mo(n,n′γ)).
		608.69 *7*	100.0 *13*	1625.905	2$^+$	E1†		0.000934 *13*	α(K)=0.000824 *12*; α(L)=9.18×10^{-5} *13*; α(M)=1.634×10^{-5} *23* α(O)=1.395×10^{-7} *20*; α(N+..)=2.62×10^{-6} *4* B(E1)(W.u.)<0.0024 E_γ: weighted average of 608.67 *11* (^{95}Mo(n,γ) E=thermal), 608.70 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 100 *6* (^{95}Mo(n,γ) E=thermal), 100.0 *13* (^{96}Mo(n,n′γ)).
		736.88 *7*	97.0 *13*	1497.787	2$^+$	E1†		0.000614 *9*	α(K)=0.000541 *8*; α(L)=6.01×10^{-5} *9*; α(M)=1.070×10^{-5} *15*; α(O)=9.19×10^{-8} *13* α(N+..)=1.719×10^{-6} *24* B(E1)(W.u.)<0.0013 E_γ: weighted average of 736.86 *11* (^{95}Mo(n,γ) E=thermal), 736.89 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 97 *6* (^{95}Mo(n,γ) E=thermal), 97.0 *13* (^{96}Mo(n,n′γ)).
		1456.25 *9*	9.72 *22*	778.237	2$^+$	E1†		0.000376 *6*	α(K)=0.0001490 *21*; α(L)=1.633×10^{-5} *23*; α(M)=2.91×10^{-6} *4* α(O)=2.54×10^{-8} *4*; α(N+..)=0.000208 *3* B(E1)(W.u.)<1.7×10^{-5} E_γ: weighted average of 1456.2 *3* (^{95}Mo(n,γ) E=thermal), 1456.26 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 9 *3* (^{95}Mo(n,γ) E=thermal), 9.72 *22* (^{96}Mo(n,n′γ)).
2398.9		1620.6	100	778.237	2$^+$				

$^{96}_{42}Mo_{54}$-10

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
2426.14	2+	447.62 *10*	4.71 *19*	1978.450	3+	M1+E2†	−2.6 *+8−16*	0.00642 *20*	α(K)=0.00560 *17*; α(L)=0.000676 *24*; α(M)=0.000121 *5*; α(N)=1.82×10^{-5} *6*; α(O)=9.41×10^{-7} *24* α(N+..)=1.91×10^{-5} *7* B(E2)(W.u.)=1.4×10^{2} *+3−4*; B(M1)(W.u.)=0.0042 *24* E_γ,I_γ: observed only in (n,n′γ).
		800.27 *8*	67.1 *15*	1625.905	2+	M1+E2†	−0.18 *17*	0.001309 *19*	α(K)=0.001153 *17*; α(L)=0.0001293 *19*; α(M)=2.31×10^{-5} *4* α(O)=2.01×10^{-7} *3*; α(N+..)=3.72×10^{-6} *6* B(E2)(W.u.)=4 *+8−4*; B(M1)(W.u.)=0.078 *+14−18* E_γ: weighted average of 800.36 *13* (^{95}Mo(n,γ) E=thermal), 800.22 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 59 *5* (^{95}Mo(n,γ) E=thermal), 67.4 *9* (^{96}Mo(n,n′γ)).
		928.25 *10*	7.35 *19*	1497.787	2+	M1+E2†	+3.9 *+18−10*	0.000920 *13*	α(K)=0.000809 *12*; α(L)=9.20×10^{-5} *13*; α(M)=1.641×10^{-5} *23* α(O)=1.387×10^{-7} *20*; α(N+..)=2.63×10^{-6} *4* B(E2)(W.u.)=6.1 *+11−14*; B(M1)(W.u.)=0.0003 *+3−3* E_γ: weighted average of 928.4 *5* (^{95}Mo(n,γ) E=thermal), 928.24 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 11 *5* (^{95}Mo(n,γ) E=thermal), 7.34 *19* (^{96}Mo(n,n′γ)).
		1647.80 *9*	100.0 *9*	778.237	2+	M1+E2†	+1.2 *3*	0.000412 *6*	α(K)=0.000244 *4*; α(L)=2.70×10^{-5} *5*; α(M)=4.82×10^{-6} *8*; α(N)=7.34×10^{-7} *12* α(O)=4.21×10^{-8} *7*; α(N+..)=0.000136 *4* B(E2)(W.u.)=2.9 *+8−9*; B(M1)(W.u.)=0.0056 *+19−21* E_γ: weighted average of 1647.6 *3* (^{95}Mo(n,γ) E=thermal), 1647.82 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 100 *9* (^{95}Mo(n,γ) E=thermal), 100.0 *9* (^{96}Mo(n,n′γ)).
		2426.28 *10*	9.0 *4*	0.0	0+	E2†		0.000645 *9*	α(K)=0.0001175 *17*; α(L)=1.290×10^{-5} *18*; α(M)=2.30×10^{-6} *4* α(O)=2.02×10^{-8} *3*; α(N+..)=0.000513 *8* B(E2)(W.u.)=0.065 *+11−14* E_γ,I_γ: observed only in (n,n′γ).
2438.477	5+	219.080 *18*	5.14 *11*	2219.425	4+	M1+E2‡	−0.44 *4*	0.0369 *12*	α(K)=0.0322 *10*; α(L)=0.00395 *15*; α(M)=0.00071 *3*; α(N)=0.000106 *4*; α(O)=5.50×10^{-6} *15* α(N+..)=0.00016 *8* B(E2)(W.u.)<1.7×10^{3}; B(M1)(W.u.)<0.39 E_γ: weighted average of 219.081 *18* (^{96}Nb β^- decay), 219.4

$^{96}_{42}Mo_{54}$-11

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
									4 (^{96}Tc ε decay (4.28 d)), 218.98 *13* (^{95}Mo(n,γ) E=thermal). I_γ: weighted average of 5.12 *8* (^{96}Nb β$^-$ decay), 4.3 *11* (^{96}Tc ε decay (4.28 d)), 20 *13* (^{96}Tc ε decay (51.5 min)), 6.6 *7* (^{95}Mo(n,γ) E=thermal). δ: from ^{96}Nb β$^-$ decay.
2438.477	5$^+$	460.03 *13*	46.1 *4*	1978.450	3$^+$	E2†		0.00609 *9*	α(K)=0.00532 *8*; α(L)=0.000643 *9*; α(M)=0.0001151 *17*; α(N)=1.727×10^{-5} *25* α(O)=8.90×10^{-7} *13*; α(N+..)=1.82×10^{-5} *3* B(E2)(W.u.)<2.0×10^3 E_γ: weighted average of 460.040 *12* (^{96}Nb β$^-$ decay), 460.04 *7* (^{96}Tc ε decay (4.28 d)), 460.0 *3* (^{96}Tc ε decay (51.5 min)), 460.5 *5* (^{94}Zr(α,2nγ)), 459.88 *12* (^{95}Mo(n,γ) E=thermal), 459.98 *10* (^{96}Mo(n,n′γ)), 459.5 *1* (^{82}Se(^{18}O,4nγ)). I_γ: weighted average of 45.9 *3* (^{96}Nb β$^-$ decay), 47 *4* (^{96}Tc ε decay (4.28 d)), 100 *30* (^{96}Tc ε decay (51.5 min)), 55 *13* (^{94}Zr(α,2nγ)), 49 *3* (^{95}Mo(n,γ) E=thermal), 49.0 *14* (^{96}Mo(n,n′γ)).
		568.869 *12*	100.0 *5*	1869.576	4$^+$	M1+E2†	−0.24 *3*	0.00287 *4*	α(K)=0.00253 *4*; α(L)=0.000286 *4*; α(M)=5.12×10^{-5} *8*; α(N)=7.79×10^{-6} *11*; α(O)=4.42×10^{-7} *7* α(N+..)=8.23×10^{-6} *12* B(E2)(W.u.)<1.0×10^2; B(M1)(W.u.)<0.48 E_γ: weighted average of 568.871 *12* (^{96}Nb β$^-$ decay), 568.88 *7* (^{96}Tc ε decay (4.28 d)), 568.8 *2* (^{96}Tc ε decay (51.5 min)), 569.1 *5* (^{94}Zr(α,2nγ)), 568.80 *12* (^{95}Mo(n,γ) E=thermal), 568.79 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 100.0 *5* (^{96}Nb β$^-$ decay), 100 *7* (^{96}Tc ε decay (4.28 d)), 90 *30* (^{96}Tc ε decay (51.5 min)), 100 *25* (^{94}Zr(α,2nγ)), 100 *7* (^{95}Mo(n,γ) E=thermal), 100.0 *16* (^{96}Mo(n,n′γ)).
		810.336 *24*	19.3 *5*	1628.188	4$^+$	M1+E2†		0.001274 *18*	α(K)=0.001120 *16*; α(L)=0.0001271 *24*; α(M)=2.27×10^{-5} *5* α(O)=1.94×10^{-7} *4*; α(N+..)=3.64×10^{-6} *6* E_γ: weighted average of 810.330 *15* (^{96}Nb β$^-$ decay), 810.3 *4* (^{96}Tc ε decay (51.5 min)), 810.8 *2* (^{95}Mo(n,γ) E=thermal), 810.49 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 19.13 *17* (^{96}Nb β$^-$ decay), 70 *30* (^{96}Tc ε decay (51.5 min)), 30 *7* (^{95}Mo(n,γ) E=thermal), 23.4 *10* (^{96}Mo(n,n′γ)).

$^{96}_{42}Mo_{54}$-12

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
2440.76	6^+	812.56 *3*	100	1628.188	4^+	E2+M3†	−0.036 *8*	0.001274 *19*	α(K)=0.001119 *16*; α(L)=0.0001286 *19*; α(M)=2.30×10^{-5} *4* α(O)=1.91×10^{-7} *3*; α(N+..)=3.64×10^{-6} *6* B(E2)(W.u.)<2.9×10^2 E_γ: weighted average of 812.581 *15* (^{96}Nb β^- decay), 812.54 *4* (^{96}Tc ε decay (4.28 d)), 812.6 *2* (^{94}Zr(α,2nγ)), 812.48 *13* (^{95}Mo(n,γ) E=thermal), 812.19 *10* (^{96}Mo(n,n′γ)), 812.4 *1* (^{82}Se(^{18}O,4nγ)). δ: from ^{96}Tc ε decay (4.28 d).
2481.06	$(4)^+$	611.4 *2*	25 *3*	1869.576	4^+				E_γ,I_γ: observed only in ^{95}Mo(n,γ), E=th.
		852.91 *8*	100 *8*	1628.188	4^+	M1+E2†	−0.20 *7*	0.001136 *16*	α(K)=0.001001 *14*; α(L)=0.0001120 *16*; α(M)=2.00×10^{-5} *3* α(O)=1.745×10^{-7} *25*; α(N+..)=3.22×10^{-6} *5* B(E2)(W.u.)<1.8; B(M1)(W.u.)<0.020 E_γ: weighted average of 853.0 *10* (^{96}Tc ε decay (51.5 min)), 853.03 *15* (^{95}Mo(n,γ) E=thermal), 852.86 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 100 *40* (^{96}Tc ε decay (51.5 min)), 100 *8* (^{95}Mo(n,γ) E=thermal), 100.0 *8* (^{96}Mo(n,n′γ)).
		983.1 *2*	14 *3*	1497.787	2^+				E_γ,I_γ: observed only in ^{95}Mo(n,γ), E=th.
		1702.78 *9*	33.9 *19*	778.237	2^+	E2†		0.000422 *6*	α(K)=0.000224 *4*; α(L)=2.49×10^{-5} *4*; α(M)=4.43×10^{-6} *7*; α(N)=6.75×10^{-7} *10* α(O)=3.86×10^{-8} *6*; α(N+..)=0.0001681 *24* B(E2)(W.u.)<0.29 E_γ: weighted average of 1702.5 *5* (^{96}Tc ε decay (51.5 min)), 1702.8 *3* (^{95}Mo(n,γ) E=thermal), 1702.79 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 40 *8* (^{96}Tc ε decay (51.5 min)), 47 *4* (^{95}Mo(n,γ) E=thermal), 33.3 *8* (^{96}Mo(n,n′γ)).
2501.58	(1)	875.61 *10*	17.2 *5*	1625.905	2^+				E_γ,I_γ: observed only in ^{96}Mo(n,n′γ).
		1003.69 *10*	35.3 *7*	1497.787	2^+				E_γ: weighted average of 1003.6 *7* (^{95}Mo(n,γ) E=thermal), 1003.69 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{96}Mo(n,n′γ). Other: 29 *18* (^{95}Mo(n,γ) E=thermal).
		1353.30 *13*	100.0 *12*	1148.13	0^+				E_γ: weighted average of 1352.9 *3* (^{95}Mo(n,γ) E=thermal), 1353.35 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{96}Mo(n,n′γ). Other: 100 *30* (^{95}Mo(n,γ) E=thermal).
		1723.29 *10*	66.7 *9*	778.237	2^+				E_γ,I_γ: observed only in ^{96}Mo(n,n′γ).
		2501.84 *10*	13.3 *5*	0.0	0^+				E_γ,I_γ: observed only in ^{96}Mo(n,n′γ).
2540.46	(3^+)	914.53 *9*	11.4 *5*	1625.905	2^+				E_γ: weighted average of 914.6 *3* (^{95}Mo(n,γ) E=thermal), 914.52 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 20 *5* (^{95}Mo(n,γ) E=thermal), 11.4 *3* (^{96}Mo(n,n′γ)).

$^{96}_{42}Mo_{54}$-13

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
2540.46	(3$^+$)	1042.62 *9*	28.1 *15*	1497.787	2$^+$				E_γ: weighted average of 1042.7 *2* (^{95}Mo(n,γ) E=thermal), 1042.60 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 41 *5* (^{95}Mo(n,γ) E=thermal), 27.9 *6* (^{96}Mo(n,n′γ)).
		1762.06 *9*	100.0 *7*	778.237	2$^+$				E_γ: weighted average of 1761.8 *3* (^{95}Mo(n,γ) E=thermal), 1762.09 *10* (^{96}Mo(n,n′γ)). from ^{96}Mo(n,n′γ). Other: 100 *14* (^{95}Mo(n,γ) E=thermal).
2594.39	3$^+$	374.9[e] *2*	6.3 *7*	2219.425	4$^+$				E_γ,I_γ: observed only in ε Decay.
		615.73 *18*	100.0 *19*	1978.450	3$^+$	M1+E2[†]		0.00249 *13*	α(K)=0.00219 *11*; α(L)=0.000252 *18*; α(M)=4.5×10^{-5} *3*; α(N)=6.8×10^{-6} *5*; α(O)=3.77×10^{-7} *13* α(N+..)=7.2×10^{-6} *5* E_γ: weighted average of 615.90 *7* (^{96}Tc ε decay (51.5 min)), 615.8 *2* (^{95}Mo(n,γ) E=thermal), 615.35 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{96}Mo(n,n′γ). Other: 83 *6* (^{96}Tc ε decay (51.5 min)), 25 *3* (^{95}Mo(n,γ) E=thermal).
		966.31 *8*	62.3 *19*	1628.188	4$^+$	M1+E2[†]	−0.9 *3*	0.000852 *13*	α(K)=0.000750 *12*; α(L)=8.43×10^{-5} *13*; α(M)=1.505×10^{-5} *22* α(O)=1.298×10^{-7} *23*; α(N+..)=2.42×10^{-6} *4* B(E2)(W.u.)=2.7 *+17−27*; B(M1)(W.u.)=0.0032 *+19−32* E_γ: weighted average of 966.4 *2* (^{96}Tc ε decay (51.5 min)), 966.3 *2* (^{95}Mo(n,γ) E=thermal), 966.29 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{96}Mo(n,n′γ). Other: 56 *4* (^{96}Tc ε decay (51.5 min)), 29 *5* (^{95}Mo(n,γ) E=thermal).
		968.42 *11*	98.7 *19*	1625.905	2$^+$	M1+E2[†]	−0.86 *23*	0.000848 *13*	α(K)=0.000747 *12*; α(L)=8.40×10^{-5} *12*; α(M)=1.498×10^{-5} *22* α(O)=1.294×10^{-7} *21*; α(N+..)=2.41×10^{-6} *4* B(E2)(W.u.)=4.1 *+24−41*; B(M1)(W.u.)=0.005 *+3−5* E_γ: weighted average of 968.5 *2* (^{96}Tc ε decay (51.5 min)), 968.21 *12* (^{95}Mo(n,γ) E=thermal), 968.54 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{96}Mo(n,n′γ). Other: 100 *7* (^{96}Tc ε decay (51.5 min)), 100 *5* (^{95}Mo(n,γ).
		1096.58 *8*		1497.787	2$^+$				E_γ: weighted average of 1096.58 *8* (^{96}Tc ε decay (51.5 min)), 1096.7 *5* (^{95}Mo(n,γ) E=thermal). I_γ: Not given in (n,n′γ), Other: 89 *6* (^{96}Tc ε decay (51.5 min)), 25 *10* (^{95}Mo(n,γ) E=thermal).
		1816.08 *14*	58.5 *10*	778.237	2$^+$	M1+E2[†]	+1.9 *3*	0.000440 *7*	α(K)=0.000200 *3*; α(L)=2.22×10^{-5} *4*; α(M)=3.95×10^{-6} *6*; α(N)=6.02×10^{-7} *9* α(O)=3.46×10^{-8} *5*; α(N+..)=0.000213 *4* B(E2)(W.u.)=0.19 *+10−19*; B(M1)(W.u.)=0.00018 *+10−18*

$^{96}_{42}Mo_{54}$-14

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
									E_γ: weighted average of 1815.6 *5* (^{96}Tc ε decay (51.5 min)), 1815.4 *4* (^{95}Mo(n,γ) E=thermal), 1816.14 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{96}Mo(n,n′γ). Other: 49 *4* (^{96}Tc ε decay (51.5 min)), 19 *5* (^{95}Mo(n,γ) E=thermal).
2611.51		983.32 *10*	1.0×10^2 *4*	1628.188	4$^+$				E_γ: from ^{96}Mo(n,n′γ). I_γ: from ^{96}Tc ε Decay (51.5 min).
		985.7	9.×10^1 *4*	1625.905	2$^+$				E_γ,I_γ: from ^{96}Tc ε Decay (51.5 min), not observed in (n,n′γ).
2622.51	(0)$^+$	1844.25 *10*	100	778.237	2$^+$	E2†		0.000450 *7*	α(K)=0.000193 *3*; α(L)=2.13×10^{-5} *3*; α(M)=3.80×10^{-6} *6*; α(N)=5.79×10^{-7} *9* α(O)=3.32×10^{-8} *5*; α(N+..)=0.000232 *4* B(E2)(W.u.)=1.7 *+6−17*
2625.19	4$^+$	405.9 *3*	16 *5*	2219.425	4$^+$	M1+E2†		0.0077 *13*	α(K)=0.0067 *12*; α(L)=0.00080 *17*; α(M)=0.00014 *3*; α(N)=2.2×10^{-5} *5*; α(O)=1.14×10^{-6} *16* α(N+..)=2.3×10^{-5} *5* E_γ: weighted average of 405.1 *3* (^{95}Mo(n,γ) E=thermal), 405.95 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 6.1 *15* (^{95}Mo(n,γ) E=thermal), 19.0 *8* (^{96}Mo(n,n′γ)).
		1846.90 *15*	100.0 *8*	778.237	2$^+$	E2†		0.000451 *7*	α(K)=0.000192 *3*; α(L)=2.13×10^{-5} *3*; α(M)=3.79×10^{-6} *6*; α(N)=5.78×10^{-7} *8* α(O)=3.31×10^{-8} *5*; α(N+..)=0.000233 *4* B(E2)(W.u.)=1.7 *+7−17* E_γ: weighted average of 1846.2 *8* (^{96}Tc ε decay (51.5 min)), 1846.3 *3* (^{95}Mo(n,γ) E=thermal), 1846.98 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 100 *12* (^{95}Mo(n,γ) E=thermal), 100.0 *8* (^{96}Mo(n,n′γ)).
2700.21	2$^+$	159.63 *14*	6.9 *7*	2540.46	(3$^+$)				E_γ,I_γ: observed only in ^{95}Mo(n,γ) E=thermal.
		1074.1 *3*	22 *7*	1625.905	2$^+$	M1+E2†		0.000673 *19*	α(K)=0.000593 *17*; α(L)=6.65×10^{-5} *15*; α(M)=1.19×10^{-5} *3*; α(N)=1.81×10^{-6} *5* α(O)=1.03×10^{-7} *4*; α(N+..)=1.91×10^{-6} *5* E_γ,I_γ: from ^{95}Mo(n,γ) E=thermal.
		1202.36 *13*	100.0 *15*	1497.787	2$^+$	M1+E2†	−0.11 *5*	0.000549 *8*	α(K)=0.000478 *7*; α(L)=5.31×10^{-5} *8*; α(M)=9.47×10^{-6} *14*; α(N)=1.445×10^{-6} *21* α(O)=8.32×10^{-8} *12*; α(N+..)=7.96×10^{-6} *12* B(E2)(W.u.)=0.4 *4*; B(M1)(W.u.)=0.050 *7*

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
									E_γ: weighted average of 1202.1 *2* (^{95}Mo(n,γ) E=thermal), 1202.43 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 100 *11* (^{95}Mo(n,γ) E=thermal), 100.0 *15* (^{96}Mo(n,n′γ)).
2700.21	2+	1921.78[c] *10*	80.6[c] *13*	778.237	2+	M1+E2†		0.000460 *13*	α(K)=0.000182 *5*; α(L)=2.01×10^{-5} *5*; α(M)=3.58×10^{-6} *9*; α(N)=5.47×10^{-7} *14* α(O)=3.15×10^{-8} *9*; α(N+..)=0.000254 *16*
		2700.88[c] *16*	32.3[c] *17*	0.0	0+	E2†		0.000751 *11*	α(K)=9.76×10^{-5} *14*; α(L)=1.070×10^{-5} *15*; α(M)=1.91×10^{-6} *3*; α(N)=2.91×10^{-7} *4* α(O)=1.678×10^{-8} *24*; α(N+..)=0.000641 *9* B(E2)(W.u.)=0.20 *3*
2712.68		271.9 *1*	100	2440.76	6+				
2734.57	(4,5)+	293.9 *4*	1.6 *5*	2440.76	6+				E_γ,I_γ: from ^{95}Mo(n,γ), E=th.
		864.93 *9*	55.6 *18*	1869.576	4+				E_γ: weighted average of 864.82 *12* (^{95}Mo(n,γ) E=thermal), 865.00 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 54 *3* (^{95}Mo(n,γ) E=thermal), 56.5 *22* (^{96}Mo(n,n′γ)).
		1106.44 *8*	100 *2*	1628.188	4+				E_γ: weighted average of 1105.8 *5* (^{94}Zr(α,2nγ)), 1106.44 *13* (^{95}Mo(n,γ) E=thermal), 1106.47 *10* (^{96}Mo(n,n′γ)), 1106.2 *5* (^{82}Se(^{18}O,4nγ)). I_γ: weighted average of 100 *5* (^{95}Mo(n,γ) E=thermal), 100.0 *22* (^{96}Mo(n,n′γ)).
		1109.1[e] *5*	13 *5*	1625.905	2+				E_γ: Only observed in ^{95}Mo(n,γ) thermal. If this gamma exists, J would be equal to 4.
2735.91	3+	1107.5 *3*		1628.188	4+				E_γ: from ^{96}Tc ε decay (51.5 min), not observed in (n,n′γ).
		1109.8 *3*		1625.905	2+				E_γ: from ^{96}Tc ε decay (51.5 min), not observed in (n,n′γ).
		1238.10 *15*	56.7 *9*	1497.787	2+	M1+E2†	−0.34 *4*	0.000519 *8*	α(K)=0.000447 *7*; α(L)=4.97×10^{-5} *7*; α(M)=8.86×10^{-6} *13*; α(N)=1.353×10^{-6} *19* α(O)=7.78×10^{-8} *11*; α(N+..)=1.276×10^{-5} *19* B(E2)(W.u.)=2.3 *6*; B(M1)(W.u.)=0.031 *5* E_γ: weighted average of 1237.8 *2* (^{96}Tc ε decay (51.5 min)), 1238.17 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{96}Mo(n,n′γ). Other: 100 *10* (^{96}Tc ε decay (51.5 min)).
		1957.75 *13*	100.0 *9*	778.237	2+	M1+E2†	+0.02 *4*	0.000458 *7*	α(K)=0.000179 *3*; α(L)=1.98×10^{-5} *3*; α(M)=3.52×10^{-6} *5*; α(N)=5.38×10^{-7} *8* α(O)=3.11×10^{-8} *5*; α(N+..)=0.000255 *4* B(E2)(W.u.)=0.002 *+7−2*; B(M1)(W.u.)=0.0155 *+22−23*

$^{96}_{42}Mo_{54}$-16

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
									E_γ: weighted average of 1957.1 *5* (^{96}Tc ε decay (51.5 min)), 1957.78 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{96}Mo(n,n′γ). Other: 74 *6* (^{96}Tc ε decay (51.5 min)).
2748.65	(0$^+$)	1250.78[e] *10*	32.5 *9*	1497.787	2$^+$				
		1970.47 *10*	100.0 *9*	778.237	2$^+$				
2755.08	6$^+$	314.29 *4*	16.5 *14*	2440.76	6$^+$	M1+E2[#]	−0.11 *1*	0.01210	α(K)=0.01063 *15*; α(L)=0.001224 *18*; α(M)=0.000219 *3*; α(N)=3.33×10^{-5} *5*; α(O)=1.87×10^{-6} *3* α(N+..)=3.68×10^{-5} *9* B(E2)(W.u.)<65; B(M1)(W.u.)<0.46 E_γ: weighted average of 314.34 *7* (^{96}Nb β^- decay), 314.27 *5* (^{96}Tc ε decay (4.28 d)), 314.3 *2* (^{82}Se(^{18}O,4nγ)). I_γ: weighted average of 18 *3* (^{96}Nb β^- decay), 16.1 *16* (^{96}Tc ε decay (4.28 d)). δ: from ^{96}Tc ε decay (4.28 d).
		316.43 *7*	10.7 *23*	2438.477	5$^+$	M1+E2[#]	−0.060 *5*	0.01183	α(K)=0.01039 *15*; α(L)=0.001194 *17*; α(M)=0.000213 *3*; α(N)=3.25×10^{-5} *5*; α(O)=1.83×10^{-6} *3* α(N+..)=3.44×10^{-5} *6* B(E2)(W.u.)<12; B(M1)(W.u.)<0.29 E_γ: weighted average of 316.27 *9* (^{96}Nb β^- decay), 316.50 *6* (^{96}Tc ε decay (4.28 d)), 316.4 *2* (^{82}Se(^{18}O,4nγ)). I_γ: weighted average of 14.3 *20* (^{96}Nb β^- decay), 9.2 *13* (^{96}Tc ε decay (4.28 d)). δ: from ^{96}Tc ε decay (4.28 d).
		535.78 *8*	2.7 *3*	2219.425	4$^+$	E2+M3[#]	−0.10 *3*	0.00412 *18*	α(K)=0.00360 *16*; α(L)=0.000432 *21*; α(M)=7.7×10^{-5} *4*; α(N)=1.16×10^{-5} *6*; α(O)=6.1×10^{-7} *3* α(N+..)=1.22×10^{-5} *6* B(E2)(W.u.)<52; B(M3)(W.u.)<2.0×10^7 E_γ,I_γ,δ: observed only in ^{96}Tc ε Decay (4.28 d).
		885.4 *2*	0.7 *3*	1869.576	4$^+$	E2+M3	−0.10 *3*	0.00107 *4*	α(K)=0.00094 *3*; α(L)=0.000108 *4*; α(M)=1.93×10^{-5} *7*; α(N)=2.93×10^{-6} *11*; α(O)=1.62×10^{-7} *6* α(N+..)=3.09×10^{-6} *11* B(E2)(W.u.)<1.1; B(M3)(W.u.)<1.5×10^5 E_γ,I_γ,δ: observed only in ^{96}Tc ε Decay (4.28 d).
		1126.94 *4*	100 *4*	1628.188	4$^+$	E2+M3[†]	−0.037 *5*	0.000596 *9*	α(K)=0.000523 *8*; α(L)=5.90×10^{-5} *9*; α(M)=1.052×10^{-5} *15*; α(O)=8.99×10^{-8} *13* α(N+..)=3.09×10^{-6} *5* B(E2)(W.u.)<47 E_γ: weighted average of 1126.965 *21* (^{96}Nb β^- decay), 1126.85

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
									6 (^{96}Tc ε decay (4.28 d)), 1125.6 5 (^{94}Zr(α,2nγ)), 1126.3 2 (^{95}Mo(n,γ) E=thermal), 1126.91 10 (^{96}Mo(n,n′γ)), 1126.8 6 (^{82}Se(^{18}O,4nγ)).
									I_γ: weighted average of 100 5 (^{96}Nb β^- decay), 100 8 (^{96}Tc ε decay (4.28 d)), 100 16 (^{82}Se(^{18}O,4nγ)).
2787.12	2^+	192.7 2	3.8 9	2594.39	3^+				E_γ: observed only in (n,γ), E=th.
		1161.29[c] 10	5.1[c] 5	1625.905	2^+	M1+E2[†]	−0.4 +3−6	0.000582 14	α(K)=0.000511 13; α(L)=5.69×10^{-5} 12; α(M)=1.014×10^{-5} 21 α(O)=8.88×10^{-8} 25; α(N+..)=4.49×10^{-6} 25 B(E2)(W.u.)=0.4 +6−4; B(M1)(W.u.)=0.0035 +11−13
		1289.32[c] 10	8.9[c] 5	1497.787	2^+	M1+E2[†]	+1.1 10	0.000477 14	α(K)=0.000401 14; α(L)=4.47×10^{-5} 13; α(M)=7.97×10^{-6} 24; α(O)=6.9×10^{-8} 3 α(N+..)=2.31×10^{-5} 24 B(E2)(W.u.)=1.7 15; B(M1)(W.u.)=0.0023 +24−23
		2008.79 9	100.0 7	778.237	2^+	M1+E2[†]		0.000484 15	α(K)=0.000168 4; α(L)=1.85×10^{-5} 5; α(M)=3.29×10^{-6} 8; α(N)=5.03×10^{-7} 12 α(O)=2.90×10^{-8} 8; α(N+..)=0.000295 17 E_γ: weighted average of 2008.5 3 (^{95}Mo(n,γ) E=thermal), 2008 3 (^{95}Mo(n,γ) E=2 keV), 2008.82 10 (^{96}Mo(n,n′γ)). I_γ: weighted average of 100 15 (^{95}Mo(n,γ) E=thermal), 100.0 7 (^{96}Mo(n,n′γ)).
2790.21	(2,4)	555.48 9	11.8 14	2234.63	3^-				E_γ: weighted average of 555.5 2 (^{95}Mo(n,γ) E=thermal), 555.48 10 (^{96}Mo(n,n′γ)). I_γ: weighted average of 18 4 (^{95}Mo(n,γ) E=thermal), 11.5 9 (^{96}Mo(n,n′γ)).
		1164.50 14	60 3	1625.905	2^+				E_γ: weighted average of 1164.50 14 (^{95}Mo(n,γ) E=thermal), 1164.4 3 (^{96}Mo(n,n′γ)). I_γ: weighted average of 84 9 (^{95}Mo(n,γ) E=thermal), 59.7 12 (^{96}Mo(n,n′γ)).
		1292.99		1497.787	2^+				E_γ: observed only in (n,n′γ), contaminated line.
		2011.96 9	100.0 14	778.237	2^+				E_γ: weighted average of 2011.8 3 (^{95}Mo(n,γ) E=thermal), 2011.98 10 (^{96}Mo(n,n′γ)). I_γ: weighted average of 100 14 (^{95}Mo(n,γ) E=thermal), 100.0 14 (^{96}Mo(n,n′γ)).
2794.50	1^+	1296.63[c] 10	27.7[c] 16	1497.787	2^+	M1+E2[†]		0.000474 13	α(K)=0.000397 13; α(L)=4.43×10^{-5} 13; α(M)=7.89×10^{-6} 22; α(O)=6.9×10^{-8} 3 α(N+..)=2.44×10^{-5} 24
		2016.54[c] 10	16.4[c] 10	778.237	2^+	M1+E2[†]		0.000486 15	α(K)=0.000167 4; α(L)=1.83×10^{-5} 4; α(M)=3.27×10^{-6} 8;

$^{96}_{42}Mo_{54}$-18

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
									α(N)=4.99×10^{-7} *12* α(O)=2.87×10^{-8} *8*; α(N+..)=0.000298 *17*
2794.50	1$^+$	2794.24[c] *10*	100.0[c] *23*	0.0	0$^+$	M1[†]		0.000745 *11*	α(K)=9.26×10^{-5} *13*; α(L)=1.014×10^{-5} *15*; α(M)=1.81×10^{-6} *3*; α(N)=2.76×10^{-7} *4* α(O)=1.599×10^{-8} *23*; α(N+..)=0.000641 *9* B(M1)(W.u.)=0.0226 *23*
2806.25	(1)	1180.42 *10*	11.2 *4*	1625.905	2$^+$				
		1308.39 *10*	18.9 *7*	1497.787	2$^+$				
		1658.10 *10*	100.0 *8*	1148.13	0$^+$				
2818.49	4$^+$	1190.29 *8*	100 *7*	1628.188	4$^+$	M1+E2[†]	−0.14 *6*	0.000559 *8*	α(K)=0.000488 *7*; α(L)=5.42×10^{-5} *8*; α(M)=9.67×10^{-6} *14*; α(N)=1.476×10^{-6} *21* α(O)=8.49×10^{-8} *12*; α(N+..)=6.72×10^{-6} *10* B(E2)(W.u.)=2.6 *+23−24*; B(M1)(W.u.)=0.19 *+5−6* E_γ: weighted average of 1190.23 *14* (^{95}Mo(n,γ) E=thermal), 1190.32 *10* (^{96}Mo(n,n′γ)).
		1320.9 *5*	12 *7*	1497.787	2$^+$				E_γ,I_γ: from ^{95}Mo(n,γ), E=th., not observed in (n,n′γ).
2875.48	7$^+$,6$^+$	120.3	5.4 *12*	2755.08	6$^+$	(M1)[#]		0.1505	α(K)=0.1317 *19*; α(L)=0.01557 *22*; α(M)=0.00279 *4*; α(N)=0.000423 *6*; α(O)=2.34×10^{-5} *4* α(N+..)=0.000447 *7* E_γ: weighted average of 120.3 *4* (^{96}Nb β^- decay), 120.3 *5* (^{96}Tc ε decay (4.28 d)). I_γ: weighted average of 6 *3* (^{96}Nb β^- decay), 5.3 *13* (^{96}Tc ε decay (4.28 d)).
		434.72 *3*	100 *5*	2440.76	6$^+$	M1+E2[#]	+0.31 *4*	0.00556 *9*	α(K)=0.00489 *8*; α(L)=0.000560 *10*; α(M)=0.0001002 *17*; α(N)=1.522×10^{-5} *25* α(O)=8.54×10^{-7} *13*; α(N+..)=1.61×10^{-5} *3* I_γ: weighted average of 100 *8* (^{96}Nb β^- decay), 100 *7* (^{96}Tc ε decay (4.28 d)). δ: from ^{96}Tc ε decay (4.28 d).
2975.28	5$^+$	434.6[e] *2*	24 *3*	2540.46	(3$^+$)				E_γ,I_γ: observed only in ^{95}Mo(n,γ) thermal.
		740.61[e] *9*	85 *15*	2234.63	3$^-$				E_γ: weighted average of 740.7 *2* (^{95}Mo(n,γ) E=thermal), 740.59 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{95}Mo(n,γ) thermal.
		755.6 *2*	94 *6*	2219.425	4$^+$				E_γ,I_γ: observed only in ^{95}Mo(n,γ) thermal.
		997.3 *2*	85 *9*	1978.450	3$^+$				E_γ,I_γ: observed only in ^{95}Mo(n,γ) thermal.
		1347.15 *14*	100 *15*	1628.188	4$^+$				E_γ: weighted average of 1346.9 *3* (^{96}Nb β^- decay), 1346.8 *2* (^{95}Mo(n,γ) E=thermal), 1347.26 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{95}Mo(n,γ) thermal.

$^{96}_{42}Mo_{54}$-19

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
2978.37	8^+	223.2 *1*	<7.5	2755.08	6^+				E_γ: observed only in ^{82}Se(^{18}O,4nγ).
		537.72 *24*	100	2440.76	6^+	E2[@]		0.00383 *6*	α(K)=0.00335 *5*; α(L)=0.000399 *6*; α(M)=7.13×10^{-5} *10*; α(N)=1.073×10^{-5} *15*; α(O)=5.65×10^{-7} *8* α(N+..)=1.130×10^{-5} *16* E_γ: weighted average of 538.2 *2* (^{94}Zr(α,2nγ)), 537.6 *1* (^{82}Se(^{18}O,4nγ)).
2986.80	2^+	891.12 *19*	57.8 *22*	2095.77	2^+	M1+E2[†]	−0.26 *11*	0.001031 *15*	α(K)=0.000908 *13*; α(L)=0.0001016 *15*; α(M)=1.81×10^{-5} *3* α(O)=1.582×10^{-7} *23*; α(N+..)=2.92×10^{-6} *4* B(E2)(W.u.)=4 *4*; B(M1)(W.u.)=0.052 *+8−9* E_γ: weighted average of 891.5 *2* (^{95}Mo(n,γ) E=thermal), 891.03 *10* (^{96}Mo(n,n′γ)). I_γ: from (n,n′γ), other: 56 *13* (^{95}Mo(n,γ) E=thermal).
		1008.30 *10*	31.4 *16*	1978.450	3^+	M1+E2[†]		0.000773 *19*	α(K)=0.000681 *17*; α(L)=7.65×10^{-5} *15*; α(M)=1.37×10^{-5} *3*; α(N)=2.08×10^{-6} *5* α(O)=1.18×10^{-7} *4*; α(N+..)=2.20×10^{-6} *5* E_γ,I_γ: observed only in (n,n′γ).
		1360.88 *12*	100.0 *25*	1625.905	2^+	M1+E2[†]		0.000445 *11*	α(K)=0.000360 *12*; α(L)=4.00×10^{-5} *12*; α(M)=7.13×10^{-6} *21* α(O)=6.22×10^{-8} *23*; α(N+..)=3.8×10^{-5} *4* E_γ: weighted average of 1360.4 *4* (^{95}Mo(n,γ) E=thermal), 1360.91 *10* (^{96}Mo(n,n′γ)). I_γ: from (n,n′γ), other: 80 *30* (^{95}Mo(n,γ) E=thermal).
		2208.55 *10*	83.2 *25*	778.237	2^+	M1+E2[†]		0.000548 *18*	α(K)=0.000141 *3*; α(L)=1.55×10^{-5} *3*; α(M)=2.76×10^{-6} *6*; α(N)=4.21×10^{-7} *9* α(O)=2.43×10^{-8} *6*; α(N+..)=0.000389 *19* E_γ: weighted average of 2208.6 *7* (^{95}Mo(n,γ) E=thermal), 2208.55 *10* (^{96}Mo(n,n′γ)). I_γ: from (n,n′γ), other: 100 *60* (^{95}Mo(n,γ) E=thermal).
		2986.76 *10*	38 *5*	0.0	0^+	E2[†]		0.000861 *12*	α(K)=8.24×10^{-5} *12*; α(L)=9.01×10^{-6} *13*; α(M)=1.605×10^{-6} *23* α(O)=1.416×10^{-8} *20*; α(N+..)=0.000768 *11* B(E2)(W.u.)=0.107 *21* E_γ,I_γ: observed only in (n,n′γ).
3006.45	0^+	1508.65 *10*	100	1497.787	2^+	E2[†]		0.000409 *6*	α(K)=0.000284 *4*; α(L)=3.16×10^{-5} *5*; α(M)=5.63×10^{-6} *8*; α(N)=8.58×10^{-7} *12* α(O)=4.88×10^{-8} *7*; α(N+..)=8.74×10^{-5} *13* B(E2)(W.u.)=31 *+6−31*
3024.58	2^+	1045.88 *16*	38.6 *16*	1978.450	3^+	M1+E2[†]		0.000713 *19*	α(K)=0.000628 *17*; α(L)=7.05×10^{-5} *15*; α(M)=1.26×10^{-5} *3*;

$^{96}_{42}Mo_{54}$-20

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
									α(N)=1.91×10^{-6} *5* α(O)=1.09×10^{-7} *4*; α(N+..)=2.02×10^{-6} *5* I_γ: from (n,n′γ), other: 37 *7* (^{95}Mo(n,γ) E=thermal). E_γ: weighted average of 1046.2 *2* (^{95}Mo(n,γ) E=thermal), 1045.80 *10* (^{96}Mo(n,n′γ)).
3024.58	2$^+$	1155.59 *10*	20.8 *7*	1869.576	4$^+$	E2†		0.000563 *8*	α(K)=0.000493 *7*; α(L)=5.55×10^{-5} *8*; α(M)=9.89×10^{-6} *14*; α(N)=1.504×10^{-6} *21* α(O)=8.47×10^{-8} *12*; α(N+..)=4.63×10^{-6} *7* B(E2)(W.u.)=11.3 *+17−19* I_γ: from (n,n′γ), other: 44 *12* (^{95}Mo(n,γ) E=thermal). E_γ: weighted average of 1155.4 *2* (^{95}Mo(n,γ) E=thermal), 1155.64 *10* (^{96}Mo(n,n′γ)).
		1396.27 *9*	100.0 *19*	1628.188	4$^+$	E2†		0.000426 *6*	α(K)=0.000332 *5*; α(L)=3.70×10^{-5} *6*; α(M)=6.60×10^{-6} *10*; α(N)=1.004×10^{-6} *14* α(O)=5.70×10^{-8} *8*; α(N+..)=5.09×10^{-5} *8* B(E2)(W.u.)=21 *+3−4* I_γ: from (n,n′γ), other: 100 *12* (^{95}Mo(n,γ) E=thermal). E_γ: weighted average of 1396.3 *2* (^{95}Mo(n,γ) E=thermal), 1396.26 *10* (^{96}Mo(n,n′γ)).
		1398.36 *9*	74.1 *16*	1625.905	2$^+$	M1+E2†	−0.48 *10*	0.000436 *7*	α(K)=0.000346 *5*; α(L)=3.84×10^{-5} *6*; α(M)=6.85×10^{-6} *10*; α(N)=1.045×10^{-6} *15* α(O)=6.01×10^{-8} *9*; α(N+..)=4.46×10^{-5} *9* B(E2)(W.u.)=2.9 *11*; B(M1)(W.u.)=0.025 *5* I_γ: from (n,n′γ), other: 77 *12* (^{95}Mo(n,γ) E=thermal). E_γ: weighted average of 1398.4 *3* (^{95}Mo(n,γ) E=thermal), 1398.36 *10* (^{96}Mo(n,n′γ)).
3053.23	(4$^+$)	298.7 *3*	5.7 *14*	2755.08	6$^+$				E_γ,I_γ: observed only in ^{95}Mo(n,γ) E=thermal.
		626.8 *3*	17 *6*	2426.14	2$^+$				E_γ,I_γ: observed only in ^{95}Mo(n,γ) E=thermal.
		1425.01 *9*	100 *14*	1628.188	4$^+$				E_γ: weighted average of 1425.1 *2* (^{95}Mo(n,γ) E=thermal), 1424.99 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{95}Mo(n,γ) E=thermal.
3087.66	3$^+$	992.15 *11*	47 *6*	2095.77	2$^+$	M1+E2†	+0.11 *10*	0.000816 *12*	α(K)=0.000719 *11*; α(L)=8.02×10^{-5} *12*; α(M)=1.431×10^{-5} *20* α(O)=1.254×10^{-7} *18*; α(N+..)=2.31×10^{-6} *4* B(E2)(W.u.)=0.1 *+3−10*; B(M1)(W.u.)=0.012 *+6−12* E_γ: weighted average of 991.7 *4* (^{95}Mo(n,γ) E=thermal), 992.18 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 24 *8* (^{95}Mo(n,γ) E=thermal), 48.4 *23* (^{96}Mo(n,n′γ)).
		1109.1 *5*	32 *14*	1978.450	3$^+$				E_γ,I_γ: observed only in ^{95}Mo(n,γ) E=thermal.

$^{96}_{42}Mo_{54}$-21

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
3087.66	3+	1459.35 *10*	100.0 *23*	1628.188	4+	M1+E2†		0.000417 *8*	α(K)=0.000312 *10*; α(L)=3.46×10^{-5} *10*; α(M)=6.18×10^{-6} *18*; α(N)=9.4×10^{-7} *3* α(O)=5.40×10^{-8} *20*; α(N+..)=6.4×10^{-5} *6* E_γ: weighted average of 1459.0 *5* (^{95}Mo(n,γ) E=thermal), 1459.36 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 100 *30* (^{95}Mo(n,γ) E=thermal), 100.0 *23* (^{96}Mo(n,n′γ)).
		1461.63 *10*	82.4 *23*	1625.905	2+	M1+E2†	−2.9 *7*	0.000414 *6*	α(K)=0.000304 *5*; α(L)=3.39×10^{-5} *5*; α(M)=6.04×10^{-6} *9*; α(N)=9.19×10^{-7} *14* α(O)=5.24×10^{-8} *8*; α(N+..)=6.96×10^{-5} *13* B(E2)(W.u.)=2.8 *+12−3*; B(M1)(W.u.)=0.0007 *+5−7* E_γ: weighted average of 1461.1 *8* (^{95}Mo(n,γ) E=thermal), 1461.64 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 60 *30* (^{95}Mo(n,γ) E=thermal), 82.5 *23* (^{96}Mo(n,n′γ)).
3089.62	2,3	1591.89 *10*	100.0 *16*	1497.787	2+				
		2311.29 *10*	49.9 *16*	778.237	2+				
3134.29		593.2 *2*	100 *14*	2540.46	(3+)				E_γ,I_γ: observed only in ^{95}Mo(n,γ) E=thermal.
		914.6 *3*	30 *8*	2219.425	4+				E_γ,I_γ: observed only in ^{95}Mo(n,γ) E=thermal.
		1508.58 *23*	81 *14*	1625.905	2+	M1+E2†	+2.6 *6*	0.000409 *6*	α(K)=0.000286 *5*; α(L)=3.18×10^{-5} *5*; α(M)=5.67×10^{-6} *9*; α(N)=8.63×10^{-7} *13* α(O)=4.93×10^{-8} *8*; α(N+..)=8.57×10^{-5} *16* B(E2)(W.u.)=8.8 *25*; B(M1)(W.u.)=0.0030 *15* E_γ: weighted average of 1507.9 *3* (^{95}Mo(n,γ) E=thermal), 1508.65 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{95}Mo(n,γ) E=thermal.
		3134.50 *10*	≈81	0.0	0+	E2†		0.000917 *13*	α(K)=7.60×10^{-5} *11*; α(L)=8.31×10^{-6} *12*; α(M)=1.480×10^{-6} *21* α(O)=1.307×10^{-8} *19*; α(N+..)=0.000831 *12* E_γ: observed only in (n,n′γ). I_γ: from Iγ(3134γ)=Iγ(1508γ) in ^{96}Mo(n,n′γ).
3154.15	1	2375.88 *11*	100	778.237	2+				
3178.69	3−	944.10 *10*	20.6 *9*	2234.63	3−	M1+E2†	−0.31 *12*	0.000907 *13*	α(K)=0.000799 *12*; α(L)=8.93×10^{-5} *13*; α(M)=1.594×10^{-5} *23* α(O)=1.392×10^{-7} *20*; α(N+..)=2.57×10^{-6} *4* B(E2)(W.u.)=2.4 *18*; B(M1)(W.u.)=0.022 *+4−5* E_γ,I_γ: observed only in (n,n′γ).
		1082.81 *10*	8.2 *8*	2095.77	2+	E1†		0.000285 *4*	α(K)=0.000252 *4*; α(L)=2.77×10^{-5} *4*; α(M)=4.93×10^{-6} *7*; α(N)=7.52×10^{-7} *11* α(O)=4.29×10^{-8} *6*; α(N+..)=7.95×10^{-7} *12*

$^{96}_{42}Mo_{54}$-22

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
									B(E1)(W.u.)=9.5×10^{-5} *+17−19* E_γ,I_γ: observed only in (n,n′γ).
3178.69	3$^-$	1680.87 *10*	25.3 *9*	1497.787	2$^+$	E1†		0.000516 *8*	α(K)=0.0001177 *17*; α(L)=1.288×10^{-5} *18*; α(M)=2.29×10^{-6} *4* α(O)=2.01×10^{-8} *3*; α(N+..)=0.000383 *6* B(E1)(W.u.)=7.9×10^{-5} *+12−14* E_γ,I_γ: observed only in (n,n′γ).
		2400.55 *13*	100.0 *15*	778.237	2$^+$	E1†		0.000962 *14*	α(K)=6.83×10^{-5} *10*; α(L)=7.44×10^{-6} *11*; α(M)=1.323×10^{-6} *19* α(O)=1.165×10^{-8} *17*; α(N+..)=0.000885 *13* B(E1)(W.u.)=0.000107 *+16−19* I_γ: from (n,n′γ). E_γ: weighted average of 2401.9 *10* (^{95}Mo(n,γ) E=thermal), 2400.54 *10* (^{96}Mo(n,n′γ)).
3186.81	4$^+$	705.7 *2*	100 *11*	2481.06	(4)$^+$				
		746.8 *9*	7.×10^1 *6*	2440.76	6$^+$				
3202.85		468.3 *3*	12 *5*	2734.57	(4,5)$^+$				
		968.21 *12*	100 *5*	2234.63	3$^-$				
3211.40	3$^+$	1232.94 *10*	100 *4*	1978.450	3$^+$	M1+E2†		0.000512 *15*	α(K)=0.000441 *14*; α(L)=4.93×10^{-5} *14*; α(M)=8.78×10^{-6} *24*; α(O)=7.6×10^{-8} *3* α(N+..)=1.30×10^{-5} *13*
		1341.70 *10*	83 *4*	1869.576	4$^+$	M1+E2†	+1.8 *13*	0.000448 *12*	α(K)=0.000365 *13*; α(L)=4.07×10^{-5} *13*; α(M)=7.25×10^{-6} *23*; α(O)=6.3×10^{-8} *3* α(N+..)=3.5×10^{-5} *4* B(E2)(W.u.)=10 *4*; B(M1)(W.u.)=0.005 *+6−5*
		1713.58 *10*	86 *3*	1497.787	2$^+$	M1+E2†	−5.2 *+13−27*	0.000423 *6*	α(K)=0.000222 *4*; α(L)=2.46×10^{-5} *4*; α(M)=4.38×10^{-6} *7*; α(N)=6.68×10^{-7} *10* α(O)=3.82×10^{-8} *6*; α(N+..)=0.0001721 *25* B(E2)(W.u.)=3.7 *+7−8*; B(M1)(W.u.)=0.00041 *+21−22*
		2433.27 *10*	49 *3*	778.237	2$^+$	M1+E2†		0.000629 *21*	α(K)=0.0001180 *20*; α(L)=1.295×10^{-5} *22*; α(M)=2.31×10^{-6} *4* α(O)=2.03×10^{-8} *4*; α(N+..)=0.000496 *22*
3232.56	(3)	1606.80 *10*	100.0 *21*	1625.905	2$^+$				
		2454.13 *10*	63.4 *21*	778.237	2$^+$				
3255.63		1629.66 *10*	100 *4*	1625.905	2$^+$				
		2477.40 *10*	77 *4*	778.237	2$^+$				
3284.97	2$^+$	1049.6 *5*	19 *10*	2234.63	3$^-$				E_γ,I_γ: observed only in (n,γ), E=th.
		1657.6 *3*	100 *16*	1628.188	4$^+$				E_γ,I_γ: observed only in (n,γ), E=th.

$^{96}_{42}Mo_{54}$-23

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
3284.97	2+	2506.64 *10*	90 *16*	778.237	2+	M1+E2†	−1.5 *+6−16*	0.000664 *14*	α(K)=0.0001115 *17*; α(L)=1.224×10^{-5} *18*; α(M)=2.18×10^{-6} *4* α(O)=1.92×10^{-8} *3*; α(N+..)=0.000538 *13* B(E2)(W.u.)=0.50 *+20−23*; B(M1)(W.u.)=0.0014 *+9−10* I_γ: from (n,γ), E=th. E_γ: weighted average of 2507.6 *15* (^{95}Mo(n,γ) E=thermal), 2506.64 *10* (^{96}Mo(n,n′γ)).
3300.38	1+	1802.81[c] *10*	9.5[c] *16*	1497.787	2+	M1+E2		0.000433 *10*	α(K)=0.000206 *6*; α(L)=2.27×10^{-5} *6*; α(M)=4.05×10^{-6} *11*; α(N)=6.18×10^{-7} *17* α(O)=3.56×10^{-8} *11*; α(N+..)=0.000200 *14*
		3300.08[c] *10*	100.0[c] *16*	0.0	0+	M1		0.000935 *13*	α(K)=6.91×10^{-5} *10*; α(L)=7.55×10^{-6} *11*; α(M)=1.345×10^{-6} *19* α(O)=1.191×10^{-8} *17*; α(N+..)=0.000857 *12* B(M1)(W.u.)=0.067 *12*
3327.87	(1)	2549.70 *10*	41 *6*	778.237	2+				
		3327.71 *10*	100 *6*	0.0	0+				
3335.30	(4+)	1706.54 *10*	46.3 *17*	1628.188	4+				E_γ,I_γ: observed only in ^{96}Mo(n,n′γ).
		1709.72 *10*	97.3 *22*	1625.905	2+				E_γ: weighted average of 1709.0 *4* (^{95}Mo(n,γ) E=thermal), 1709.72 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{96}Mo(n,n′γ).
		2557.25 *10*	100.0 *24*	778.237	2+				E_γ,I_γ: observed only in ^{96}Mo(n,n′γ).
3351.67	2+	1255.75 *10*	98 *5*	2095.77	2+	M1+E2†	−0.10 *+13−28*	0.000509 *8*	α(K)=0.000437 *7*; α(L)=4.85×10^{-5} *8*; α(M)=8.64×10^{-6} *13*; α(N)=1.319×10^{-6} *20* α(O)=7.60×10^{-8} *13*; α(N+..)=1.52×10^{-5} *5* B(E2)(W.u.)=0.7 *+18−7*; B(M1)(W.u.)=0.11 *+3−4*
		1854.35 *10*	100 *5*	1497.787	2+	M1+E2†	−1.5 *+4−8*	0.000447 *7*	α(K)=0.000193 *3*; α(L)=2.14×10^{-5} *4*; α(M)=3.81×10^{-6} *6*; α(N)=5.81×10^{-7} *9* α(O)=3.34×10^{-8} *6*; α(N+..)=0.000228 *6* B(E2)(W.u.)=7.0 *+20−23*; B(M1)(W.u.)=0.011 *5* E_γ: poor fit. Level-energy difference=1853.87.
		3351.04 *13*	72 *5*	0.0	0+	E2†		0.000997 *14*	α(K)=6.81×10^{-5} *10*; α(L)=7.44×10^{-6} *11*; α(M)=1.325×10^{-6} *19* α(O)=1.171×10^{-8} *17*; α(N+..)=0.000920 *13* B(E2)(W.u.)=0.38 *+9−11*
3364.0		2585.7 *3*	100	778.237	2+				
3369.98	(8)+	391.5 *1*	28.9 *3*	2978.37	8+	M1+E2@	−0.8 *+4−3*	0.0082 *8*	α(K)=0.0072 *7*; α(L)=0.00085 *10*; α(M)=0.000152 *18*; α(N)=2.3×10^{-5} *3*; α(O)=1.22×10^{-6} *10* α(N+..)=2.4×10^{-5} *3* E_γ,I_γ,δ: observed only in ^{82}Se(^{18}O,4nγ).

$^{96}_{42}Mo_{54}$-24

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
3369.98	$(8)^+$	929.32 *18*	100.0 *3*	2440.76	6^+	E2[@]		0.000916 *13*	α(K)=0.000805 *12*; α(L)=9.17×10^{-5} *13*; α(M)=1.636×10^{-5} *23* α(O)=1.379×10^{-7} *20*; α(N+..)=2.62×10^{-6} *4* E_γ: weighted average of 929.3 *2* (^{94}Zr(α,2nγ)), 929.4 *4* (^{82}Se(^{18}O,4nγ)). I_γ: from ^{82}Se(^{18}O,4nγ).
3373.89	2^+	1748.26 *10*	39.3 *15*	1625.905	2^+	M1+E2[†]		0.000423 *9*	α(K)=0.000218 *6*; α(L)=2.41×10^{-5} *7*; α(M)=4.30×10^{-6} *12*; α(N)=6.57×10^{-7} *18* α(O)=3.77×10^{-8} *12*; α(N+..)=0.000176 *13* δ: +3.4 *+29−12* or −0.12 *+14−38*.
		2595.47 *7*	100.0 *15*	778.237	2^+	M1+E2[†]	−0.51 *8*	0.000679 *10*	α(K)=0.0001055 *15*; α(L)=1.157×10^{-5} *17*; α(M)=2.06×10^{-6} *3* α(O)=1.82×10^{-8} *3*; α(N+..)=0.000559 *9* B(E2)(W.u.)=1.2 *4*; B(M1)(W.u.)=0.031 *5*
3416.82	4^+	229.9 *6*	10 *5*	3186.81	4^+				E_γ,I_γ: observed only in ^{95}Mo(n,γ) E=thermal.
		283.0 *2*	12.5 *25*	3134.29					E_γ,I_γ: observed only in ^{95}Mo(n,γ) E=thermal.
		976.2 *6*	25 *15*	2440.76	6^+				E_γ,I_γ: observed only in ^{95}Mo(n,γ) E=thermal.
		1320.78 *10*	78 *4*	2095.77	2^+	E2[†]		0.000453 *7*	α(K)=0.000372 *6*; α(L)=4.15×10^{-5} *6*; α(M)=7.41×10^{-6} *11*; α(N)=1.128×10^{-6} *16* α(O)=6.39×10^{-8} *9*; α(N+..)=3.20×10^{-5} *5* B(E2)(W.u.)<2.3 E_γ: weighted average of 1320.9 *5* (^{95}Mo(n,γ) E=thermal), 1320.77 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 45 *25* (^{95}Mo(n,γ) E=thermal), 78 *3* (^{96}Mo(n,n′γ)).
		1919.33 *15*	100 *3*	1497.787	2^+	E2[†]		0.000470 *7*	α(K)=0.000179 *3*; α(L)=1.98×10^{-5} *3*; α(M)=3.52×10^{-6} *5*; α(N)=5.37×10^{-7} *8* α(O)=3.08×10^{-8} *5*; α(N+..)=0.000268 *4* B(E2)(W.u.)<0.45 E_γ: weighted average of 1918.6 *5* (^{95}Mo(n,γ) E=thermal), 1919.36 *10* (^{96}Mo(n,n′γ)). I_γ: weighted average of 100 *40* (^{95}Mo(n,γ) E=thermal), 100 *3* (^{96}Mo(n,n′γ)).
		2638.55 *10*	81 *3*	778.237	2^+	E2[†]		0.000727 *11*	α(K)=0.0001016 *15*; α(L)=1.114×10^{-5} *16*; α(M)=1.98×10^{-6} *3* α(O)=1.746×10^{-8} *25*; α(N+..)=0.000612 *9* B(E2)(W.u.)<0.073 E_γ,I_γ: observed only in (n,n′γ).
3421.24	(1)	1795.49 *10*	49 *6*	1625.905	2^+				
		3421.00 *10*	100 *6*	0.0	0^+				

$^{96}_{42}Mo_{54}$-25

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
3424.90	1^+	2646.87[c] *15*	7.6[c] *17*	778.237	2^+	M1+E2†		0.000710 *23*	α(K)=0.0001016 *16*; α(L)=1.113×10^{-5} *17*; α(M)=1.98×10^{-6} *3* α(O)=1.75×10^{-8} *3*; α(N+..)=0.000595 *23*
		3424.73 *10*	100.0 *17*	0.0	0^+	M1†		0.000980 *14*	α(K)=6.48×10^{-5} *9*; α(L)=7.08×10^{-6} *10*; α(M)=1.261×10^{-6} *18*; α(N)=1.93×10^{-7} *3* α(O)=1.117×10^{-8} *16*; α(N+..)=0.000907 *13* B(M1)(W.u.)=0.061 *+16−21*
3433.60	$(4)^+$	2655.32 *10*	100	778.237	2^+	E2		0.000733 *11*	α(K)=0.0001005 *14*; α(L)=1.102×10^{-5} *16*; α(M)=1.96×10^{-6} *3* α(O)=1.727×10^{-8} *25*; α(N+..)=0.000620 *9* B(E2)(W.u.)=1.7 *+3−4*
3441.92	4^+	960.7 *3*	9.7 *24*	2481.06	$(4)^+$				E_γ,I_γ: observed only in ^{95}Mo(n,γ) E=thermal.
		1463.3 *4*	19 *8*	1978.450	3^+				E_γ,I_γ: observed only in ^{95}Mo(n,γ) E=thermal.
		1815.4 *4*	15 *4*	1625.905	2^+				E_γ,I_γ: observed only in ^{95}Mo(n,γ) E=thermal.
		2663.71 *10*	100 *16*	778.237	2^+	E2†		0.000736 *11*	α(K)=0.0001000 *14*; α(L)=1.096×10^{-5} *16*; α(M)=1.95×10^{-6} *3* α(O)=1.718×10^{-8} *24*; α(N+..)=0.000623 *9* E_γ: weighted average of 2663.8 *15* (^{95}Mo(n,γ) E=thermal), 2663.71 *10* (^{96}Mo(n,n′γ)). I_γ: from ^{95}Mo(n,γ) E=thermal.
3444.8?		1006.3[e] *5*	100	2438.477	5^+				
3464.65	(3)	1595.09 *10*	100.0 *22*	1869.576	4^+				
		1966.82 *10*	83.2 *22*	1497.787	2^+				
3472.20	2^+	2693.92[c] *10*	100[c]	778.237	2^+	M1+E2†		0.000728 *23*	α(K)=9.85×10^{-5} *15*; α(L)=1.079×10^{-5} *16*; α(M)=1.92×10^{-6} *3*; α(N)=2.94×10^{-7} *5* α(O)=1.70×10^{-8} *3*; α(N+..)=0.000617 *23*
3472.65?	$(7)^+$	738.5[e] *3*	100 *3*	2734.57	$(4,5)^+$	E2@		0.001611 *23*	α(K)=0.001414 *20*; α(L)=0.0001635 *23*; α(M)=2.92×10^{-5} *5* α(O)=2.41×10^{-7} *4*; α(N+..)=4.66×10^{-6} *7* E_γ: weighted average of 738.7 *5* (^{94}Zr(α,2nγ)), 738.3 *4* (^{82}Se(^{18}O,4nγ)). I_γ: from ^{82}Se(^{18}O,4nγ), other: 80 *30* ^{94}Zr(α,2nγ).
		1032.2[e] *5*	44 *5*	2440.76	6^+	M1@		0.000750 *11*	α(K)=0.000661 *10*; α(L)=7.36×10^{-5} *11*; α(M)=1.314×10^{-5} *19* α(O)=1.152×10^{-7} *17*; α(N+..)=2.12×10^{-6} *3* I_γ: from ^{82}Se(^{18}O,4nγ), other: 100 *30* ^{94}Zr(α,2nγ).
3530.99	1,2,3	1904.72 *10*	100.0 *21*	1625.905	2^+				
		2033.67 *12*	91.2 *21*	1497.787	2^+				
3540.88	(3)	1671.48 *10*	58 *3*	1869.576	4^+				
		2762.40 *10*	100 *3*	778.237	2^+				

$^{96}_{42}Mo_{54}$-26

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
3551.4	3	1923.2 *3*	100	1628.188	4^+	(M1+E2)[&]	0.22 *18*	0.000450 *7*	α(K)=0.000185 *3*; α(L)=2.04×10^{-5} *3*; α(M)=3.64×10^{-6} *6*; α(N)=5.56×10^{-7} *8* α(O)=3.21×10^{-8} *5*; α(N+..)=0.000241 *5*
3573.28	(1)	1947.69 *10*	89 *11*	1625.905	2^+				
		3572.88 *10*	100 *11*	0.0	0^+				
3599.57	1^-	2821.30[c] *10*	28[c] *8*	778.237	2^+	E1[†]		0.001190 *17*	α(K)=5.43×10^{-5} *8*; α(L)=5.90×10^{-6} *9*; α(M)=1.049×10^{-6} *15*; α(O)=9.25×10^{-9} *13* α(N+..)=0.001129 *16* B(E1)(W.u.)=0.00030 *11*
		3599.45[c] *24*	100[c] *5*	0.0	0^+	E1[†]		0.001551 *22*	α(K)=3.89×10^{-5} *6*; α(L)=4.22×10^{-6} *6*; α(M)=7.51×10^{-7} *11*; α(N)=1.147×10^{-7} *16* α(O)=6.64×10^{-9} *10*; α(N+..)=0.001507 *21* B(E1)(W.u.)=0.00052 *12*
3610.48	2,3	2112.94 *10*	100.0 *21*	1497.787	2^+				
		2831.93 *10*	31.4 *21*	778.237	2^+				
3623.19	(3^+)	2844.91 *10*	100	778.237	2^+				
3668.82	3^+	2041.36 *14*	92 *6*	1628.188	4^+	M1+E2[†]	−3.8 *+15−52*	0.000505 *8*	α(K)=0.0001602 *23*; α(L)=1.77×10^{-5} *3*; α(M)=3.15×10^{-6} *5*; α(N)=4.80×10^{-7} *7* α(O)=2.76×10^{-8} *4*; α(N+..)=0.000324 *6* B(E2)(W.u.)=6.2 *+12−14*; B(M1)(W.u.)=0.0018 *14*
		2890.16 *10*	100 *4*	778.237	2^+	M1+E2[†]		0.000803 *25*	α(K)=8.71×10^{-5} *13*; α(L)=9.54×10^{-6} *14*; α(M)=1.698×10^{-6} *24* α(O)=1.500×10^{-8} *22*; α(N+..)=0.000704 *24* δ: −0.45 *+11−16* or −1.2 *+9−4*.
3786.93	$(10)^+$	808.6 *1*	100	2978.37	8^+	E2[@]		0.001281 *18*	α(K)=0.001125 *16*; α(L)=0.0001293 *19*; α(M)=2.31×10^{-5} *4* α(O)=1.92×10^{-7} *3*; α(N+..)=3.69×10^{-6} *6* E_γ: from ^{82}Se(^{18}O,4nγ).
3895.4	1^-	3895.3	100	0.0	0^+	E1[a]		0.001667 *24*	α(K)=3.51×10^{-5} *5*; α(L)=3.81×10^{-6} *6*; α(M)=6.77×10^{-7} *10*; α(N)=1.034×10^{-7} *15* α(O)=5.98×10^{-9} *9*; α(N+..)=0.001627 *23*
3915.69	$(9)^+$	443.1 *1*	28.6 *4*	3472.65?	$(7)^+$	E2[@]		0.00684 *10*	α(K)=0.00596 *9*; α(L)=0.000725 *11*; α(M)=0.0001296 *19*; α(N)=1.94×10^{-5} *3* α(O)=9.95×10^{-7} *14*; α(N+..)=2.04×10^{-5} *3* E_γ,I_γ: from ^{82}Se(^{18}O,4nγ).
		545.62 *12*	100.0 *4*	3369.98	$(8)^+$	M1[@]		0.00314 *5*	α(K)=0.00277 *4*; α(L)=0.000313 *5*; α(M)=5.59×10^{-5} *8*; α(N)=8.51×10^{-6} *12*; α(O)=4.85×10^{-7} *7* α(N+..)=9.00×10^{-6} *13*

$^{96}_{42}Mo_{54}$-27

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
									E_γ: weighted average of 546.2 *5* (^{94}Zr(α,2nγ)), 545.6 *1* (^{82}Se(^{18}O,4nγ)).
3915.69	$(9)^+$	1202.8 *3*	<1.49	2712.68					E_γ,I_γ: from ^{82}Se(^{18}O,4nγ).
4245.11	10^+	875.0 *3*	100.0 *20*	3369.98	$(8)^+$				E_γ,I_γ: from ^{82}Se(^{18}O,4nγ).
		1266.6 *6*	39 *6*	2978.37	8^+	E2@		0.000479 *7*	α(K)=0.000405 *6*; α(L)=4.54×10^{-5} *7*; α(M)=8.10×10^{-6} *12*; α(N)=1.232×10^{-6} *18* α(O)=6.97×10^{-8} *10*; α(N+..)=2.05×10^{-5} *4*
4532.84	$(11)^+$	745.9 *2*	100	3786.93	$(10)^+$	M1+E2@	+0.18 *+5−4*	0.001534 *22*	α(K)=0.001350 *19*; α(L)=0.0001517 *22*; α(M)=2.71×10^{-5} *4* α(O)=2.36×10^{-7} *4*; α(N+..)=4.36×10^{-6} *7* E_γ: from ^{82}Se(^{18}O,4nγ), other: 796.8 *5* (^{94}Zr(α,2nγ)). δ: from ^{82}Se(^{18}O,4nγ).
4583.55	$(12)^+$	796.61 *10*	100	3786.93	$(10)^+$	E2@		0.001330 *19*	α(K)=0.001168 *17*; α(L)=0.0001343 *19*; α(M)=2.40×10^{-5} *4* α(O)=2.00×10^{-7} *3*; α(N+..)=3.83×10^{-6} *6* E_γ: weighted average of 796.8 *5* (^{94}Zr(α,2nγ)), 796.6 *1* (^{82}Se(^{18}O,4nγ)).
4795.12	$(11)^+$	550.0 *1*	6.9 *4*	4245.11	10^+	M1@		0.00309 *5*	α(K)=0.00272 *4*; α(L)=0.000307 *5*; α(M)=5.48×10^{-5} *8*; α(N)=8.36×10^{-6} *12*; α(O)=4.76×10^{-7} *7* α(N+..)=8.83×10^{-6} *13* E_γ,I_γ: observed only in ^{82}Se(^{18}O,4nγ).
		879.4 *1*	100.0 *11*	3915.69	$(9)^+$	E2@		0.001044 *15*	α(K)=0.000917 *13*; α(L)=0.0001048 *15*; α(M)=1.87×10^{-5} *3* α(O)=1.571×10^{-7} *22*; α(N+..)=2.99×10^{-6} *5* I_γ: observed only in ^{82}Se(^{18}O,4nγ). E_γ: from ^{82}Se(^{18}O,4nγ), otherL 879.3 *5* (^{94}Zr(α,2nγ)).
		1009.0 *5*	6.5 *11*	3786.93	$(10)^+$				E_γ,I_γ: observed only in ^{82}Se(^{18}O,4nγ).
5132.20	$(12)^+$	886.8 *4*	51 *8*	4245.11	10^+	E2		0.001023 *15*	α(K)=0.000899 *13*; α(L)=0.0001027 *15*; α(M)=1.83×10^{-5} *3* α(O)=1.540×10^{-7} *22*; α(N+..)=2.93×10^{-6} *5*
		1345.6 *7*	100 *5*	3786.93	$(10)^+$				
5640.64	$(13)^+$	508.5 *3*	19.4 *15*	5132.20	$(12)^+$				
		1057.1 *3*	100 *6*	4583.55	$(12)^+$	M1+E2@	+0.12 *+8−6*	0.000712 *10*	α(K)=0.000628 *9*; α(L)=6.99×10^{-5} *10*; α(M)=1.247×10^{-5} *18* α(O)=1.093×10^{-7} *16*; α(N+..)=2.01×10^{-6} *3*
5654.61	$(13)^+$	522.4 *1*	7.8 *11*	5132.20	$(12)^+$				
		859.5 *1*	100.0 *7*	4795.12	$(11)^+$	E2@		0.001103 *16*	α(K)=0.000969 *14*; α(L)=0.0001109 *16*; α(M)=1.98×10^{-5} *3* α(O)=1.659×10^{-7} *24*; α(N+..)=3.17×10^{-6} *5*
5811.43	$(14)^+$	170.8 *1*	100 *4*	5640.64	$(13)^+$	M1@		0.0582	α(K)=0.0510 *8*; α(L)=0.00597 *9*; α(M)=0.001069 *15*; α(N)=0.0001624 *23*; α(O)=9.05×10^{-6} *13* α(N+..)=0.0001714 *25*

$^{96}_{42}Mo_{54}$-28

Adopted Levels, Gammas (continued)

γ(^{96}Mo) (continued)

E_i(level)	J_i^π	E_γ[b]	I_γ[b]	E_f	J_f^π	Mult.	δ[d]	α	Comments
5811.43	$(14)^+$	679.2 *2*	37.3 *15*	5132.20	$(12)^+$	E2[@]		0.00201 *3*	α(K)=0.001758 *25*; α(L)=0.000205 *3*; α(M)=3.66×10^{-5} *6*; α(N)=5.53×10^{-6} *8*; α(O)=2.99×10^{-7} *5* α(N+..)=5.83×10^{-6} *9*
6414.52	$(15)^+$	759.9 *1*	100	5654.61	$(13)^+$	E2[@]		0.001498 *21*	α(K)=0.001315 *19*; α(L)=0.0001517 *22*; α(M)=2.71×10^{-5} *4* α(O)=2.24×10^{-7} *4*; α(N+..)=4.33×10^{-6} *6*
6709.8	$(15)^+$	898.4 *3*	100	5811.43	$(14)^+$	M1+E2[@]	−0.18 *7*	0.001013 *15*	α(K)=0.000892 *13*; α(L)=9.98×10^{-5} *14*; α(M)=1.780×10^{-5} *25* α(O)=1.556×10^{-7} *22*; α(N+..)=2.87×10^{-6} *4*
7505.5	$(17)^+$	1091.0 *6*	100	6414.52	$(15)^+$	E2[@]		0.000635 *9*	α(K)=0.000559 *8*; α(L)=6.31×10^{-5} *9*; α(M)=1.125×10^{-5} *16*; α(O)=9.59×10^{-8} *14* α(N+..)=1.81×10^{-6} *3*
7554.1		844.3 *2*	100	6709.8	$(15)^+$				
8424.0	$(19)^+$	918.5 *2*	100	7505.5	$(17)^+$	E2[@]		0.000941 *14*	α(K)=0.000827 *12*; α(L)=9.43×10^{-5} *14*; α(M)=1.683×10^{-5} *24* α(O)=1.417×10^{-7} *20*; α(N+..)=2.69×10^{-6} *4*
9466.9	(20^+)	1042.9 *6*	100	8424.0	$(19)^+$	(M1)[@]		0.000734 *11*	α(K)=0.000647 *9*; α(L)=7.20×10^{-5} *11*; α(M)=1.285×10^{-5} *18* α(O)=1.127×10^{-7} *16*; α(N+..)=2.07×10^{-6} *3*
9882.4		1458.4 *11*	100	8424.0	$(19)^+$				

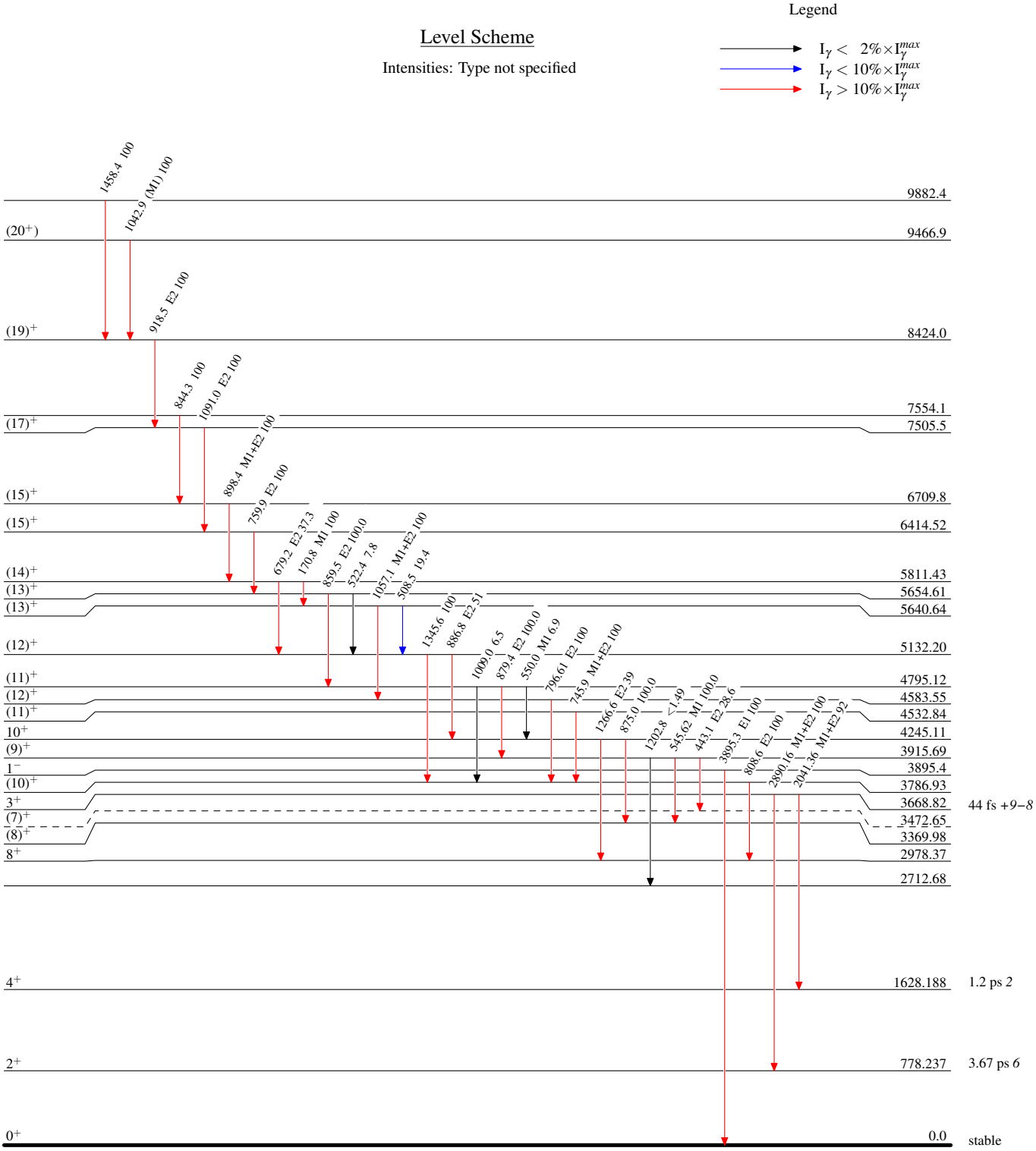
† From (n,n′γ).
‡ From ^{96}Nb β^- decay.
# From ^{96}Tc ε decay (4.28 d).
@ From ^{82}Se(^{18}O,4nγ).
& From ^{95}Mo(n,γ) E=thermal.
a From ^{96}Mo(pol γ,γ′).
b Weighted average of available data. The resulting data are mostly based on the ^{96}Nb β^- decay and ^{96}Mo(n,n′γ) datasets.
c From ^{96}Mo(n,n′γ).
d From ^{96}Mo(n,n′γ), unless otherwise indicated in a comment or by the xref.
e Placement of transition in the level scheme is uncertain.

$^{96}_{42}Mo_{54}$-29

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified



$^{96}_{42}Mo_{54}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

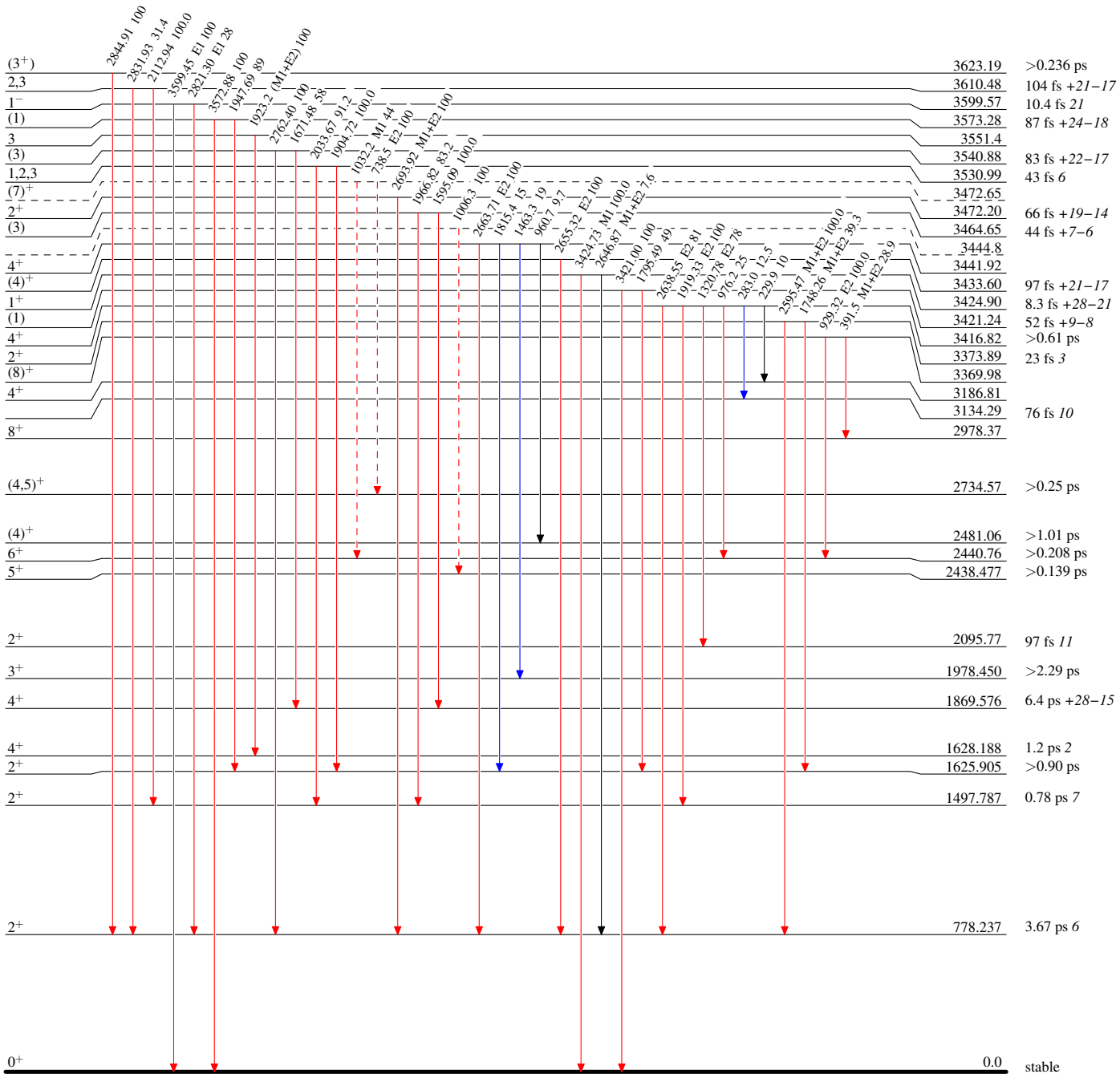
Legend

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

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

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

γ Decay (Uncertain)

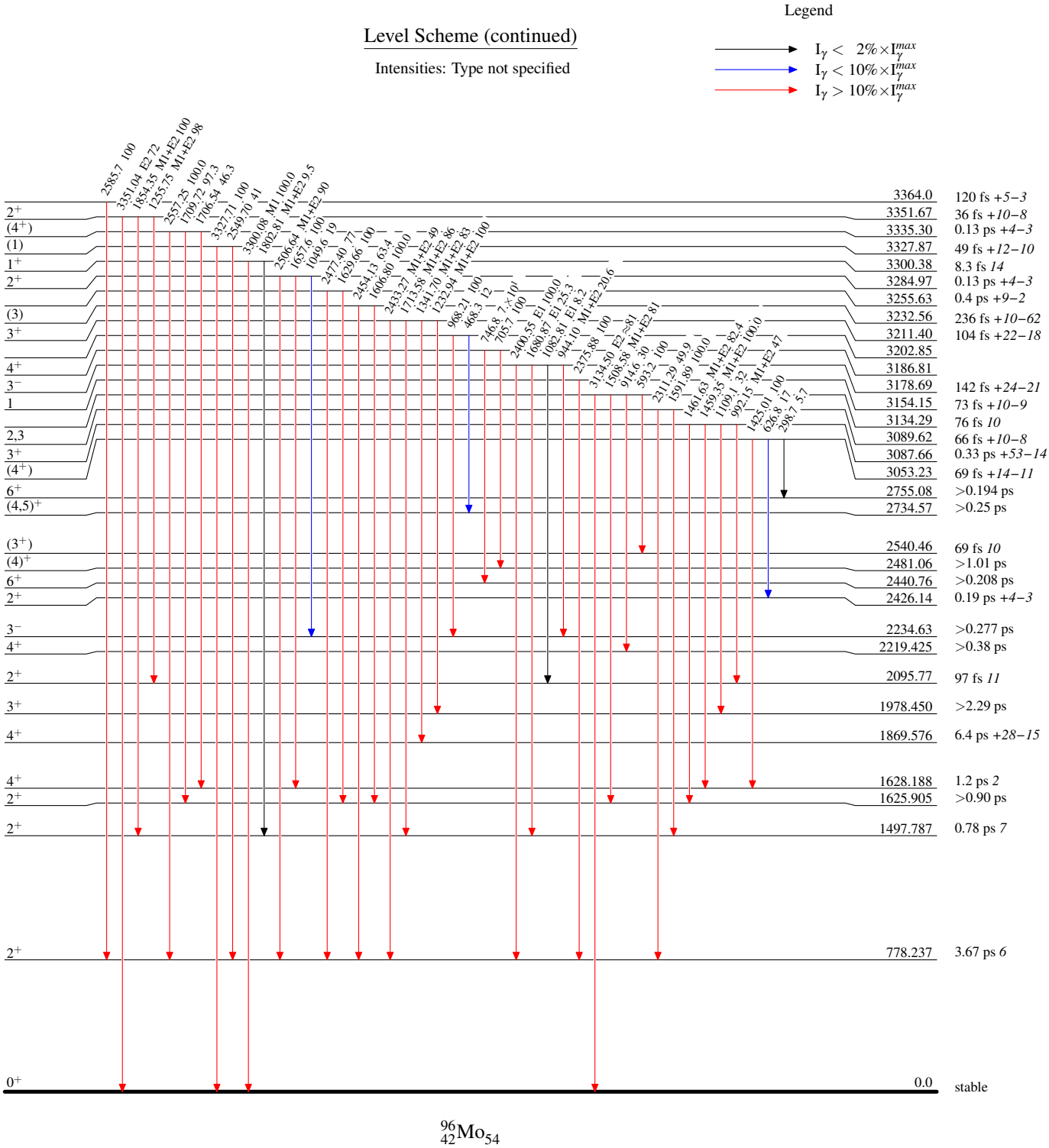


$^{96}_{42}Mo_{54}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

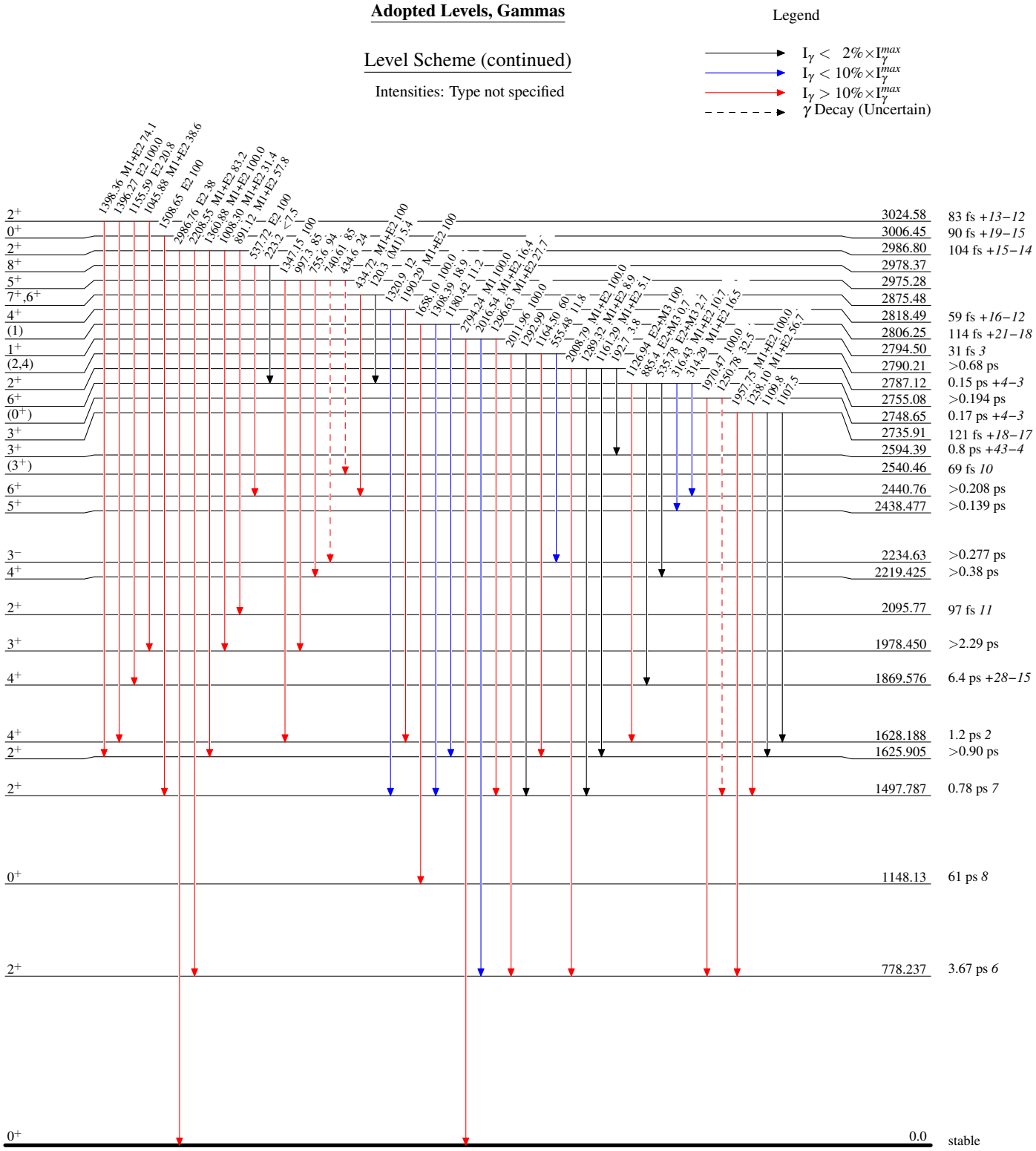


$^{96}_{42}Mo_{54}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

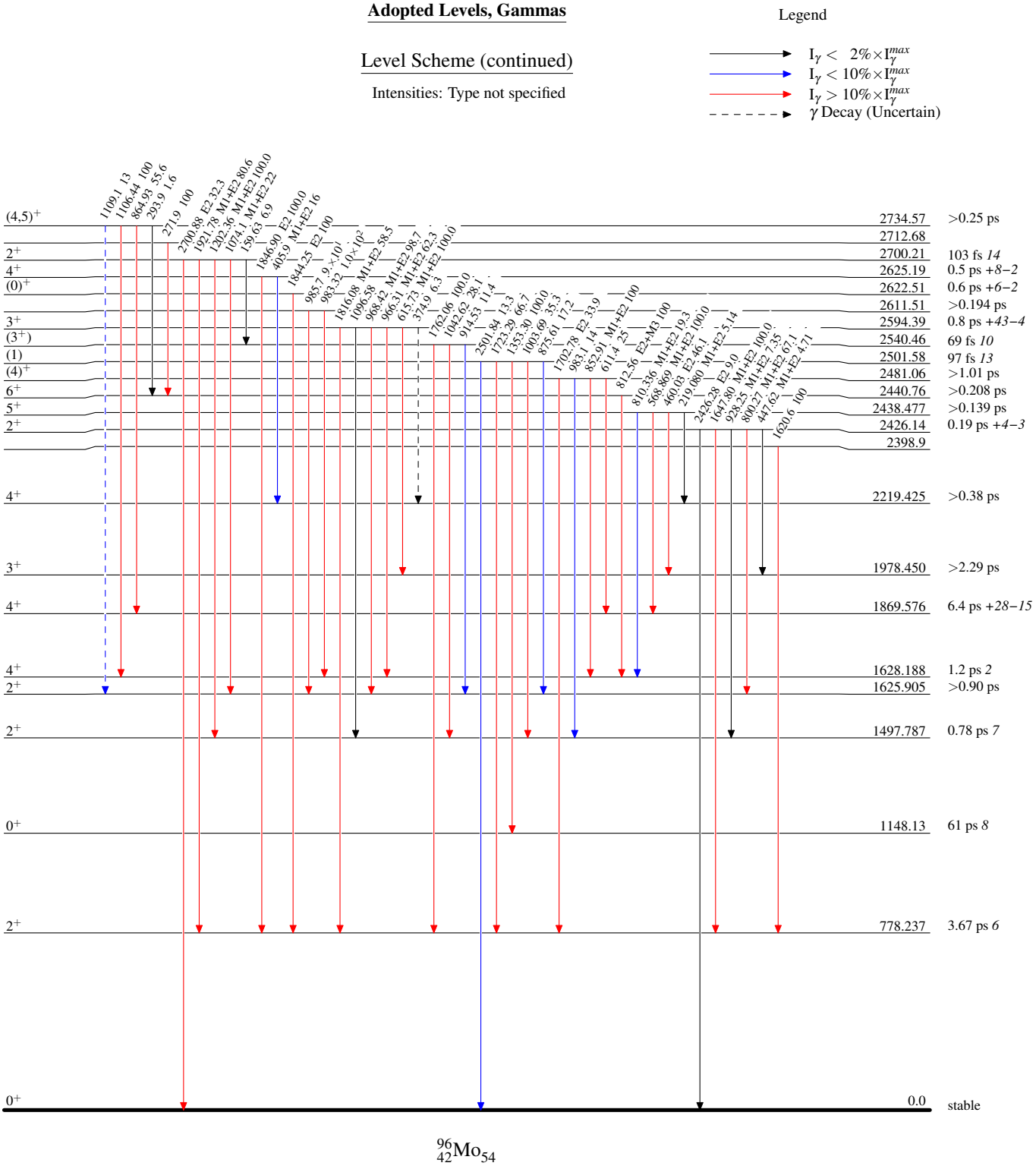


$^{96}_{42}Mo_{54}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

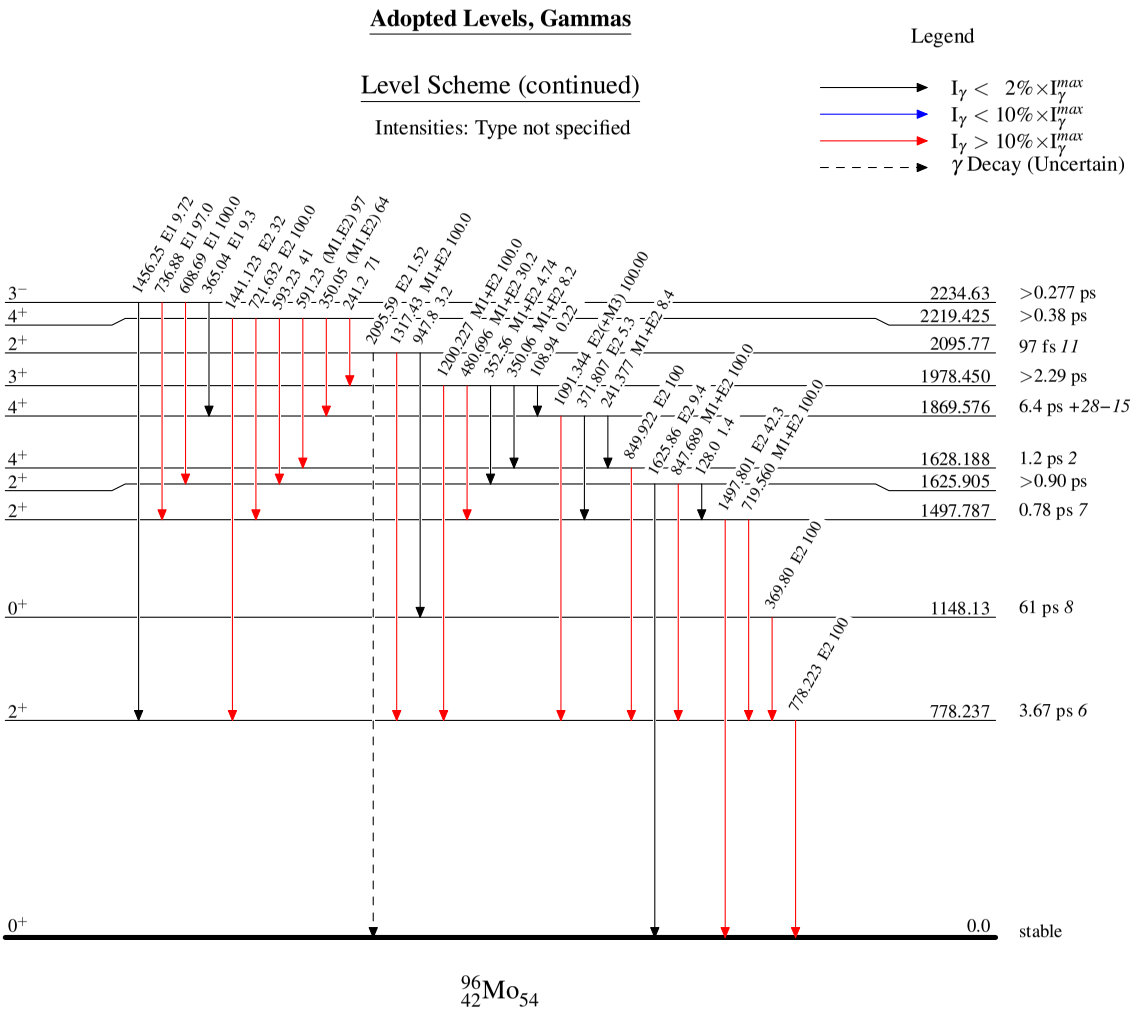


$^{96}_{42}Mo_{54}$

Adopted Levels, Gammas

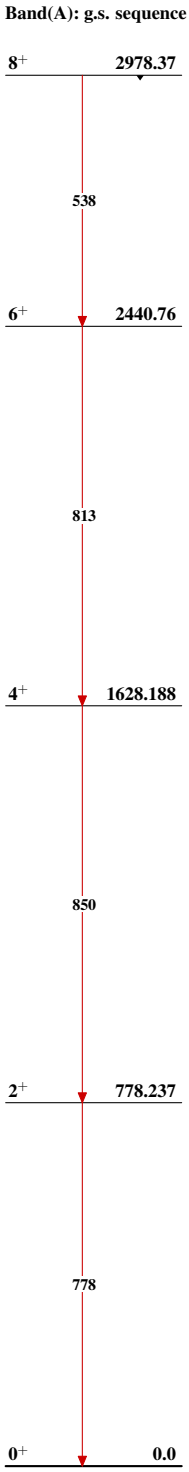
Level Scheme (continued)

Intensities: Type not specified



$^{96}_{42}Mo_{54}$

Adopted Levels, Gammas



$^{96}_{42}Mo_{54}$