Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. De Frenne and A. Negret	NDS 109, 943 (2008)	1-May-2007

Q(β^-)=−2965 *3*; S(n)=9561.0 *3*; S(p)=9345.8 *24*; Q(α)=−3229.4 *16* 2012Wa38
Note: Current evaluation has used the following Q record.
Q(β^-)=−2965 *3*; S(n)=9561.0 *3*; S(p)=9345.8 *25*; Q(α)=−3229 *4* 2003Au03

^{106}Pd Levels

Cross Reference (XREF) Flags

A	^{106}Rh β^- decay (30.07 s)	I	^{105}Pd(n,γ) E=res: av	Q	^{106}Pd(p,p′γ)
B	^{106}Rh β^- decay (131 min)	J	^{105}Pd(n,γ) E=2 keV res	R	^{106}Pd(α,α′)
C	^{106}Ag ε decay (23.96 min)	K	^{105}Pd(n,γ) E=24 keV res	S	Coulomb excitation
D	^{106}Ag ε decay (8.28 d)	L	^{105}Pd(d,p)	T	^{108}Pd(p,t)
E	^{96}Zr(^{13}C,3nγ)	M	^{106}Pd(γ,γ′)	U	^{109}Ag(p,α)
F	^{104}Ru(α,2nγ)	N	^{106}Pd(e,e′)	V	^{106}Cd 2β+ decay
G	^{105}Pd(n,γ),(n,e) E=thermal	O	^{106}Pd(n,n′γ)		
H	^{105}Pd(n,γ) E=resonance	P	^{106}Pd(p,p′),(d,d′)		

E(level)	J$^\pi$	T$_{1/2}$	XREF	Comments
0.0[a]	0$^+$	stable	ABCDEFGHIJKLMNOP RSTUV	rms charge radius: 4.5322 fm 28 (2004An14).
511.850[a] *23*	2$^+$	12.2 ps *4*	ABCDEFGHIJKLMNOP RSTUV	μ= 0.74 *3* Q=−0.51 *7* T$_{1/2}$: from B(E2)=0.670 *19* in Coul. ex. Others: 13.6 ps *44* via (γ,γ′) (1977Ga06) 14.3 ps 4 from (e,ε′) (1991We15). μ: Other: +0.80 4 (1989Ra17). J$^\pi$: L(p,t)=2. Q: Deduced from (e,e′) E=183,250 MeV (1973Ho05). Others: −0.56 8 or −0.41 and −0.51 7 (1989Ra17).
1128.02 *3*	2$^+$	3.12 ps *25*	ABCDEFGHIJKL NOP RSTUV	μ=+0.58 *9* T$_{1/2}$: from B(E2)=0.0175 *13* in Coul. ex. with branching (1128γ)=35.2% *6*. J$^\pi$: from E2 to g.s. μ: Other: +0.60 12 (1989Ra17).
1133.76 *4*	0$^+$	5.8 ps *13*	A C GH JK O RST V	J$^\pi$: from E0 to g.s. B(E2)[2+(511 keV) to 0+(1133 keV)]=0.021 *4*: weighted average of 0.018*4* (1969Ro05) and 0.026 *5*(1995Sv01) in Coul. ex. T$_{1/2}$: from B(E2)[2+(511 keV) to 0+(1133 keV)]=0.021 *4*.
1220			U	
1229.30[a] *4*	4$^+$	1.31 ps *18*	ABCDEFGHIJKL NOP RST	T$_{1/2}$: from B(E2)[2$^+$ (511 keV) to 4+(1229 keV)]=0.38 *3*. B(E2)[2$^+$ (511 keV) to 4+(1229 keV)]=0.38 *3* weighted average of B(E2)[2$^+$ (511 keV) to 4+(1229 keV)]=0.39 *5* (1969Ro05) and 0.38 *4* (1995Sv01). Other: 0.51 *9* (1962Ec03). J$^\pi$: L(p,t)=4.
1557.68 *4*	3$^+$		AB DEFGHIJK O	J$^\pi$: from M1+E2 to 2$^+$ state. E1 from 4$^-$.
1562.25 *3*	2$^+$		A CD FGHIJKL OP TU	J$^\pi$: L(p,t)=2 [E2].
1700			U	
1706.44 *5*	0$^+$	2.8 ps *5*	A C G IJK OP T	J$^\pi$: L(p,t)=0. T$_{1/2}$: From measured B(E2)(W.u.)=2.4 +0.4-0.3 and adopted branching for 1196γ in Coul. ex. (1995Sv01).
1904.21 *9*	2$^-$,3$^-$		G	J$^\pi$: from E1 347.14γ to 3$^+$ and 1158γ to 2$^+$.
1909.37[#] *16*	2$^+$		A C GHIJKL OP T	J$^\pi$: L(p,p′)=2.

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Adopted Levels, Gammas (continued)

^{106}Pd Levels (continued)

E(level)	J^π	$T_{1/2}$	XREF	Comments
1920			U	
1932.32 *6*	4^+	1.16 ps *16*	B DEFGHIJKL NOP T	J^π: L(p,p′)=4. $T_{1/2}$: From measured B(E2)(W.u.)=35 *+5−4* and adopted branching for 804γ in Coul. ex. (1995Sv01).
2001.48 *5*	0^+		A C GHIJK OP T	J^π: L(p,t)=0.
2076.69 *4*	4^+		F HI O	J^π: J=4 from (848γ)(717γ)(θ) and J^π=(4)$^+$ from av res n capture.
2077.01[a] *6*	6^+	0.49 ps *5*	B DEFG JK	J^π: E2 to 4^+. J=6 from strong E2 in cascade to g.s. $T_{1/2}$: From measured B(E2)(W.u.)=89 *+10−13* and adopted branching for 848γ in Coul. ex. (1995Sv01) via (^{13}C,3nγ) and (847γ)(θ).
2083.92 *5*	3^-	1.2 ps *3*	B DEFGHIJKL OP RST	$T_{1/2}$: from B(E3)=0.128 *19* (1969Ro05) and adopted gamma branching. J^π: E1 to 2^+. J=3 from (1572γ)(512γ)(θ), 1572γ(θ), J=2^-,3^- from av res n capture.
2229.20 *21*			EF	
2242.48 *5*	2^+		A C GHIJKL OP TU	J^π: L=2 (p,t), L=0 (d,p).
2278.11 *9*	0^+		A C G JK O	J^π: E2 to 1128(J^π=2^+) level. J=0 from (1766γ)(512γ)(θ), (1150γ)(1128γ)(θ).
2283.05 *5*	4^+		D GHIJKL OP R T	J^π: L(p,t)=4.
2305.62 *5*	4^-	2.0 ns *5*	B DEFGHIJK O T	$T_{1/2}$: from $\alpha\gamma$(t) in ^{104}Ru(α,2nγ). J^π: E1 to 4^+, M1+E2 to 3^-. J=4 from (748γ)(1046γ)(θ); 222γ(θ).
2308.82 *5*	2^+		A C GHIJKL O U	J^π: L=2(+0)(d,p); J=2 from (1797γ)(512γ)(θ), (1181γ)(1128γ)(θ).
2350.86 *5*	4^+		B D FG IJKL O T	J^π: J=4 from L(p,t)=4.
2366.01 *5*	5^+		DEFGH JK O	J^π: π=+ from M1+E2 to 3^+ state. J=5 from av res data.
2397.41 *25*	$(5)^-$		DE G L P R TU	J^π: π=− from E1+M2 to 4^+. L=(5)(p,t). May be unresolved doublet with 2398 keV level in (p,t).
2400.84[†] *25*	2^-,3^-		GHIJK O	J^π: from av res n capture.
2439.10 *7*	2^+		A C G IJKL O T	J^π: L(p,t)=2.
2472.26[#] *10*	1^+,2^+		G I L O	J^π: L=2 (d,p); γ to 0^+.
2484.66 *20*	(1^-)		A GHIJK O	J^π: 1^-,4^- from av res n capture.
2495 *1*	1^-		P R	J^π: from L(p,p′)=1.
2500 *4*	2^+		A G TU	J^π: from L=2 (p,t), L=0+2 (d,p) but observed states are very probably unresolved multiplets.
2500.31 *8*	2^-		C HI L O	J^π: E1+M2 to 2^+. J from (1989γ)(512γ)(θ).
2578.56[#] *24*	(5^-)		DEFGHI L OP TU	J^π: L(p,p′)=5. 1,4^- from av res. γ to 4^+ eliminates J=1. In contradiction with L(d,p)=0+2 for unresolved doublet at 2578 keV. L(p,p′) eliminates also J^π=4^-.
2591.6[#] *4*	$(2,3)^+$		HI L O	J^π: for L(d,p)=0+2 for unresolved doublet at 2592 keV. J^π=2,3^+ from av res n capture.
2624.40 *5*	0^+		A C G O	J^π: J=0 from (1062γ)(1050γ)(θ), (2113γ)(512γ)(θ) π=+ from log *ft*=5.76 from ^{106}Rh (J^π=1^+) β^- decay.
2626.84 *9*	$(2,3)^+$		G I L	J^π: L=2 (d,p). J=$(2,3)^+$ from av res. Discrepancies exist for branching ratios of the 2626 and 3054 keV levels in (n,γ) and (n,n′γ) reactions due to unresolved doublet of 1498γ deexciting both levels.
2648.9[#] *5*	4^+		I L OP R T	J^π: L(p,p′)=4.
2699.37[@] *15*	$(6)^-$	0.5 ns *1*	EF L	$T_{1/2}$: from $\alpha\gamma$(t) in ^{104}Ru(α,2nγ). J^π: ΔJ(301.99,M1+E2)=−1.
2705.30 *8*	$(1)^+$		A C I O	J^π: π=+ from M1+E2 to 2^+. J=(1) suggested by (2193γ)(512γ)(θ) and J^π=1,2^+ from γ decay pattern.
2712 *5*	(4^+)		P	J^π: L(p,p′)=(4) could be unresolved doublet with 2713.6 level

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Adopted Levels, Gammas (continued)

^{106}Pd Levels (continued)

E(level)	J$^\pi$	T$_{1/2}$	XREF	Comments
				L=2+0 for may be unresolved doublet in (d,p).
2713.89† *8*	2$^+$,3$^+$		A G I L	J$^\pi$: L=2+0 (d,p) but this level could interfere with 2712 level for which L(p,p′)=(4) was observed.
2717.59 *21*			A	
2737			L T	
2741.0# *5*	4$^+$		G OP	B(E4)↑=0.0113 *8* XREF: P(2746). J$^\pi$: L(p,p′)=4.
2748.2# *4*	2,3$^-$		HI O T	J$^\pi$: suggested from av res n capture (1971Co19).
2757.06 *4*	5$^+$	<3.6 ns	B D F L R	T$_{1/2}$: from (K x ray)(γ)(t) in ^{106}Ag ε decay (8.28 d). J$^\pi$: E2 to 3$^+$. J=5 from (1199γ)(1046γ)(θ), (1528γ)(717γ)(θ), (linear pol 1199γ)(1046γ)(θ) and γ-deexcitation pattern.
2775.9# *8*	(4$^+$)		G T	J$^\pi$: L(p,t)=(4).
2783.74 *21*	2$^+$		A G I L OP T	J$^\pi$: L(p,p′)=2.
2793.67@ *16*	(7$^-$)		EF L	J$^\pi$: suggested from (396γ)(θ), linear pol 396γ data in ^{96}Zr(^{13}C,3nγ).
2820.97 *9*	2$^+$		A G L OP	J$^\pi$: L=0(+2) in (d,p) for E=2815 *3*. L(d,p)=0 gives J$^\pi$=2$^+$,3$^+$. γ to 0$^+$ rules out 3$^+$.
2828.29 *9*	0$^+$		A C G L T	J$^\pi$: π=+ from E2 to 2$^+$. J=0 from (2316γ)(512γ)(θ).
2847 *5*	(4$^+$)		I P	L(p,p′)=(4).
2850.6# *5*	2$^+$,3$^+$		G L O	J$^\pi$: from L=2+0 (d,p).
2861.4# *4*	($^+$)		G I O	J$^\pi$: π=(+) suggested from av res data.
2877.92 *7*	0$^+$		A C G I	J$^\pi$: π=+ from log *ft*=5.77 from ^{106}Rh (J$^\pi$=1$^+$). J=0 from (2366γ)(512γ)(θ).
2879 *5*	(1$^-$)		L P	J$^\pi$: L(p,p′)=(1).
2886.5# *7*	($^-$)		G I O	J$^\pi$: π=(−) suggested from av res data.
2898.1# *7*	(1$^-$,4$^-$)		G I O	J$^\pi$: suggested from av res data.
2902.48 *10*	2$^+$		A G L O	J$^\pi$: L=0(+2) (d,p). J=2,3 from (2391γ)(512γ)(θ) but J=3 excluded by γ transition to 0$^+$ g.s. state.
2908.7# *7*	(1$^-$)		G I OP	J$^\pi$: L(p,p′)=(1).
2917.86 *8*	2$^+$		A G I L O T	J$^\pi$: M1+E2 to 2$^+$. J=2 from (2406γ)(512γ)(θ).
2930 *5*	4$^+$		G P	J$^\pi$: L(p,p′)=4.
2936.0# *6*	(2$^-$,3$^-$)		I O	J$^\pi$: suggested from av res data.
2951.84 *6*	5$^+$	<2.0 ns	B D L	T$_{1/2}$: from (K x-ray)(γ)(t) (1968We16) in ^{106}Ag ε decay (8.28 d). J$^\pi$: E1 to 4$^-$. J=5 from (linear pol 1394γ)(1046γ)(θ).
2963.0& *4*	8$^+$	0.33 ps *7*	EF	J$^\pi$: E2 to 6$^+$. J=8 from strong E2 in cascade to g.s. in ^{96}Zr(^{13}C,3nγ). T$_{1/2}$: From measured B(E2)(W.u.)=107 *+13−26* and adopted branching for 886γ in Coul. ex. (1995Sv01) in (^{13}C,3nγ).
2968.68 *21*	3$^-$		A GHI OP T	J$^\pi$: L(p,p′)=3. E(level): taken from ^{106}Rh β$^-$ decay (29.8 s).
2977.4† *20*	+		I L	J$^\pi$: π=+ from L=4+2 (d,p).
2977.93@ *21*	(7$^-$)		E U	J$^\pi$: suggested from 901γ(θ), γγ(θ) data in (^{13}C,3nγ).
2998.77@ *16*	(8$^-$)	<0.2 ns	EF	T$_{1/2}$: from αγ(t) in ^{104}Ru(α,2nγ). J$^\pi$: suggested from (205,299γ)(θ), 299γ linear pol data and γ-decay pattern.
3026‡ *3*	+		L	J$^\pi$: π=+ from L=2 (d,p).
3037.32 *17*	1,2		A G O	J$^\pi$: suggested from γ decay pattern in ^{106}Rh β- decay (30.07 s).
3042.7† *25*	4$^+$		I L P	J$^\pi$: L(p,p′)=4.

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Adopted Levels, Gammas (continued)

^{106}Pd Levels (continued)

E(level)	J$^\pi$	T$_{1/2}$	XREF	Comments
3054.97 *9*	1$^+$		A G I L O	J$^\pi$: π=+ from log *ft*=5.73 from ^{106}Rh(J$^\pi$=1$^+$). J=1 from (2543γ)(512γ)(θ).
3069 *5*	2$^+$		L P	J$^\pi$: L(p,p′)=2.
3069.9[#] *6*	(2,3)$^-$		G I O	J$^\pi$: J$^\pi$=(2,3$^-$) suggested from av res data. π=− from (n,γ).
3083.91 *18*	0		A L OP	J$^\pi$: J=0 from (2571γ)(512γ)(θ) in ^{106}Rh β^- decay (30.07 s).
3097[‡] *3*	(1$^-$,2$^+$)		L	E(level): weighted average of 3098 *3* (d,p) and 3093 *5* (p,p′). J$^\pi$: L=2 (d,p). L(p,p′)=(1,2).
3120.0[#] *10*	2$^+$,3$^+$		L O	J$^\pi$: L(d,p)=0+2.
3123 *5*	(6$^+$)		P	J$^\pi$: from L(p,p′)=(6).
3144[‡] *3*	2$^+$,3$^+$		L	J$^\pi$: L=0 (d,p).
3161.0 *5*	2$^+$		L O	J$^\pi$: L(p,p′)=2.
3163.7 *3*	(1,2$^+$)		A OP	J$^\pi$: γ to 0$^+$.
3173.8[#] *6*	(2$^+$,3$^+$)		G L O	J$^\pi$: L(d,p)=0+2; however, 1969Di14 suggest possible doublet, γ′s to 2$^+$ and 3$^+$.
3176.77[@] *20*	(8$^-$)		EF	J$^\pi$: J=8 from ΔJ(383γ,D+Q)=−1 in ^{96}Zr(^{13}C,3nγ). γ to 6$^-$.
3217 *5*	3$^-$		P T	J$^\pi$: L(p,p′)=3.
3221.37 *25*	0$^+$		A G	J$^\pi$: π=+ from log *ft*=5.51 in ^{106}Rh β^- decay(J$^\pi$=1$^+$). J=0 from (2710γ)(512γ)(θ).
3249.9 *5*	2$^+$		A P T	J$^\pi$: L(p,p′)=2 for E=3250 *5*. L(p,t)=(2) for E=3251 *4*.
3252.0 *4*	2$^+$		A	J$^\pi$: L(p,p′)=2 for E=3250 *5*. L(p,t)=(2) for E=3251 *4*.
3273.5 *7*	1,2		A	J$^\pi$: γ to 0$^+$.
3275 *5*	3$^-$		P	J$^\pi$: L(p,p′)=3.
3289.65[@] *16*	(9$^-$)	0.2 ns *1*	EF	T$_{1/2}$: from $\alpha\gamma$(t) in ^{104}Ru(α,2nγ). J$^\pi$: J=9: ΔJ(496γ,E2 to 7$^-$)=−2.
3299.2 *7*			A	
3320.5 *3*	0$^+$		A G	J$^\pi$: π=+ from log *ft*=5.63 from ^{106}Rh β^- decay (J$^\pi$=1$^+$). J=0 from (2809γ)(512γ)(θ).
3321 *5*	5$^-$		P	J$^\pi$: L(p,p′)=5.
3359 *5*	(5$^-$,6$^+$)		P	J$^\pi$: L(p,p′)=(5,6).
3397 *5*	4$^+$		A P	J$^\pi$: L(p,p′)=4.
3414 *5*	3$^-$		P	J$^\pi$: L(p,p′)=3.
3449 *5*	2$^+$		P	J$^\pi$: L(p,p′)=2.
3461.89[@] *20*	9$^{(-)}$	0.25 ns *10*	EF	T$_{1/2}$: from $\alpha\gamma$(t) in ^{104}Ru(α,2nγ). J$^\pi$: J=9 from ΔJ(285γ,D+Q) to(8$^-$)=−1 and ΔJ(463γ,D+Q)=−1 to (8$^-$) in (^{13}C,3nγ).
3490 *5*	2$^+$		P	J$^\pi$: L(p,p′)=2.
3532 *5*	(5$^-$)		P	J$^\pi$: L(p,p′)=(5).
3533.5[@] *4*	10$^+$		EF	J$^\pi$: E2 to 8$^+$. J=10 from ΔJ(570γ,E2 from this level)=−2.
3575 *5*	5$^-$		P	J$^\pi$: L(p,p′)=5.
3607 *5*	(3$^-$)		P	J$^\pi$: L(p,p′)=(3).
3647 *5*	2$^+$		P	J$^\pi$: L(p,p′)=2.
3654.16 *20*	10$^{(-)}$		EF	J$^\pi$: from ΔJ(65γ,Q)=−2. Q to 8$^-$ in (^{13}C,3nγ).
3708 *5*	(5$^-$)		P	J$^\pi$: L(p,p′)=(5).
3761 *5*	3$^-$		P	J$^\pi$: L(p,p′)=3.
3805 *5*	(3$^-$)		P	J$^\pi$: L(p,p′)=(3).
3825 *5*	3$^-$		P	J$^\pi$: L(p,p′)=3.
3874.80[@] *12*	(10$^-$)		E	J$^\pi$: suggested from (E2) to (8$^-$) in (^{13}C,3nγ).
3879 *5*	3$^-$		P	J$^\pi$: L(p,p′)=3.
3903 *5*	3$^-$		P	J$^\pi$: L(p,p′)=3.
3938 *5*	2$^+$		P	J$^\pi$: L(p,p′)=2.
3949.1[&] *5*	(10$^+$)		EF	J$^\pi$: suggested from (E2) to 8$^+$ in (^{13}C,3nγ).
3998 *5*	4$^+$		P	J$^\pi$: L(p,p′)=4.

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Adopted Levels, Gammas (continued)

^{106}Pd Levels (continued)

E(level)	J^π	XREF	Comments
4021.73[@] *11*	$11^{(-)}$	EF	J^π: J=11 from ΔJ(732γ,Q)=−2 and Q in (^{13}C,3nγ).
4042 *5*	4^+	P	J^π: L(p,p′)=4.
4054 *5*	2^+	P	J^π: L(p,p′)=2.
4088.7[@] *1*	12^+	E	J^π: π=+ from E2 to 10^+. J=12 from ΔJ(555γ,E2)=−2 in (^{13}C,2nγ).
4106 *5*	4^+	P	J^π: L(p,p′)=4.
4134 *5*	3^-	P	J^π: L(p,p′)=3.
4156 *5*	3^-	P	J^π: L(p,p′)=3.
4193 *5*		P	
4224 *5*	4^+	P	J^π: L(p,p′)=4.
4259.8[@] *4*	(11^-)	E	J^π: suggested from (798γ)(γ)(θ) in (^{13}C,2nγ).
4640.2[@] *4*	(12^-)	E	J^π: suggested from (986γ)(γ)(θ) in (^{13}C,2nγ).
4721.8[@] *4*	$12^{(+)}$	E	J^π: from ΔJ(1188γ,Q)=−2 to 10^+ in (^{13}C,2nγ).
4752.3 *4*	(12^-)	E	J^π: Suggested from γ decay pattern in ^{96}Zr(^{13}C,3nγ).
4893.8[@] *3*	14^+	E	J^π: π=+ from E2 to 12^+. J=14 from ΔJ(805γ,E2)=−2 to 12^+ in (^{13}C,2nγ).
4990.1[@] *4*	(13^-)	E	J^π: suggested from 968γ(θ) in (^{13}C,2nγ).
5106.6[@] *6*	(12^+)	E	J^π: suggested from 1018γ(θ) in (^{13}C,2nγ).
5404.0[@] *5*	(14^+)	E	J^π: suggested from (682,1315γ)(γ)(θ) in (^{13}C,2nγ).
5895.0[@] *6*	(16^+)	E	J^π: suggested from doublet(1000,1001γ)(θ) in (^{13}C,2nγ).

† From ^{105}Pd(n,γ).
‡ From ^{105}Pd(d,p).
# From ^{106}Pd(n,n′γ).
@ From ^{96}Zr(^{13}C,3nγ).
& From ^{96}Zr(^{13}C,3nγ); possible member of ΔJ=2 band built on g.s.
a Band(A): Possible member of ΔJ=2 band built on g.s. for more details see 1976Gr12 in ^{96}Zr(^{13}C,3nγ).

$\gamma(^{106}Pd)$

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[b]	δ[c]	Comments
511.850	2^+	511.842 *28*	100	0.0	0^+	E2		B(E2)(W.u.)=44.3 *15* BE2W=50 +7-5 from Coul. ex. (1995Sv01).
1128.02	2^+	616.174 *24*	100.0 *24*	511.850	2^+	M1+E2+E0	−9.4 *20*	B(M1)(W.u.)=0.00022 *10*; B(E2)(W.u.)=44 *4* B(E2)(W.u.)=39 *4* from Coul. ex. (1995Sv01).
		1128.00 *6*	54.4 *8*	0.0	0^+	E2		B(E2)(W.u.)=1.17 *10* B(E2)(W.u.)=0.87 *10* from Coul. ex. (1995Sv01).
1133.76	0^+	6 *1*		1128.02	2^+	[E2]		E_γ: Deduced from level scheme in Coul. ex. (1995Sv01). B(E2)(W.u.)=19 *+7−3* in Coul. ex. (1995Sv01).
		621.94 *3*	100.0 *12*	511.850	2^+	E2		B(E2)(W.u.)=35 *8* B(E2)(W.u.)=43 *+6−9* in Coul. ex. (1995Sv01).
		1133.7 *7*		0.0	0^+	E0		I(γ+ce)=0.057 *6*.
1229.30	4^+	101 *1*		1128.02	2^+	[E2]		E_γ: calculated from level scheme in (1995Sv01). B(E2)(W.u.)=0.7 +7.2-0.3 in Coul. ex. (1995Sv01).
		717.24 *6*	100	511.850	2^+	E2		B(E2)(W.u.)=76 *11* B(E2)(W.u.)=71 *7* in Coul. ex. (1995Sv01).
1557.68	3^+	328.460 *20*	3.86 *17*	1229.30	4^+	E2(+M1)		Mult.: No δ given in ^{106}Rh β^- decay (131 min).
		429.64 *5*	44.5 *12*	1128.02	2^+	M1+E2	−7.9 *8*	
		1045.83 *8*	100 *5*	511.850	2^+	M1+E2	−3.8 *4*	
1562.25	2^+	333 *1*		1229.30	4^+			E_γ: Deduced by evaluators from level scheme in Coul. ex. (1995Sv01). B(E2)(W.u.)=5.3 +2.5-1.4 in Coul. ex. (1995Sv01).
		428.56 *9*	4.53 *13*	1133.76	0^+	[E2]		B(E2)(W.u.)=39 *4* in Coul. ex. (1995Sv01).
		434.25 *21*	1.30 *13*	1128.02	2^+	[E2]		B(E2)(W.u.)=10.2 +2.2-1.5 in Coul. ex. (1995Sv01).
		1050.39 *5*	100.0 *17*	511.850	2^+	(M1+E2)	+0.24 *1*	B(E2)(W.u.)=0.52 +0.10-0.07 in Coul. ex. (1995Sv01).
		1562.24 *5*	10.43 *12*	0.0	0^+			B(E2)(W.u.)=0.14 *2* in Coul. ex. (1995Sv01).
1706.44	0^+	578.38 *9*	15.1 *11*	1128.02	2^+	E2		B(E2)(W.u.)=14 *3* B(E2)(W.u.)=13 *+3−2* in Coul. ex. (1995Sv01).
		1194.53 *4*	100.0 *7*	511.850	2^+	E2		B(E2)(W.u.)=2.4 *5* Mult.: from α(K)exp in (n,γ). M1 excluded if J^π for the initial and final states are correct. B(E2)(W.u.)=2.4 +0.4-0.3 in Coul. ex. (1995Sv01).
1904.21	$2^-,3^-$	347.14 *13*	≤198	1557.68	3^+	E1		Mult.: from α(K)exp=0.0041 *10* for the 346.59+347.14 γ transitions. E_γ: No final level within 0.48 keV.
		775.75 *11*	100 *11*	1128.02	2^+			
1909.37	2^+	781.6[#] *5*	2.8[#] *9*	1128.02	2^+			
		1397.4[#] *2*	100.0[#] *10*	511.850	2^+			
		1909.5[#] *3*	35[#] *4*	0.0	0^+			
1932.32	4^+	374.46 *13*	2.12 *28*	1557.68	3^+	M1(+E2)		

$^{106}_{46}Pd_{60}$-6

$\gamma(^{106}Pd)$ (continued)

E_i(level)	J^π_i	E_γ [†]	I_γ [†]	E_f	J^π_f	Mult. [b]	δ [c]	Comments
1932.32	4+	703.11 *7*	35.8 *13*	1229.30	4+	M1+E2	−2.30 *2*	B(M1)(W.u.)=0.0022 *4*; B(E2)(W.u.)=21 *3* B(E2)(W.u.)=23 +*3*−*2* in Coul. ex. (1995Sv01).
		804.34 *13*	100 *4*	1128.02	2+	E2		B(E2)(W.u.)=35 *6* B(E2)(W.u.)=35 +*5*−*4* in Coul. ex. (1995Sv01).
		1419.4 *8*	0.28 *14*	511.850	2+			B(E2)(W.u.)=0.007 +0.006-0.003 in Coul. ex. (1995Sv01).
2001.48	0+	439.19 *26*	2.9 *5*	1562.25	2+			
		873.48 *4*	100.0 *12*	1128.02	2+	E2		
		1489.60 *19*	0.75 *13*	511.850	2+			
		2002 *1*		0.0	0+	E0		Mult.: from conversion data in ^{105}Pd(n,γ)(n,e).
2076.69	4+	847.270 *20*	100 *33*	1229.30	4+	E2		
		949.52 *25*	12.2 *22*	1128.02	2+			E_γ: No final level within 0.79 keV.
		1565.76 *11*	5.9 *7*	511.850	2+			E_γ: No final level within 0.48 keV.
2077.01	6+	848.0 *2*	100	1229.30	4+	E2		B(E2)(W.u.)=88 *9* B(E2)(W.u.)=89 +*10*−*13* in Coul. ex. (1995Sv01).
2083.92	3−	522.30 *30*	1.33 *27*	1562.25	2+			
		956.22 *22*	7.2 *12*	1128.02	2+			
		1572.35 *15*	100 *8*	511.850	2+	E1		B(E1)(W.u.)=5.9×10^{-5} *17*
		2084.0 *4*	0.35 *7*	0.0	0+	[E3]		B(E3)(W.u.)=29 *10*
2229.20		999.9 *2*	100	1229.30	4+			
2242.48	2+	680.22 *8*	78 *14*	1562.25	2+	M1,E2		Mult.: from α(K)exp in (n,γ). α(K)exp also consistent with E1+M2 with δ=0.4.
		684.80 *20*	42.8 *16*	1557.68	3+			
		1108.76 *12*	47 *4*	1133.76	0+			
		1114.48 *5*	100 *7*	1128.02	2+	M1+E2	+1.5 +*3*−*2*	
		1730.35 *23*	17.9 *13*	511.850	2+			
		2242.46 *12*	15.8 *7*	0.0	0+			
2278.11	0+	715.90 *20*	29.2 *12*	1562.25	2+			
		1150.20 *20*	8.9 *6*	1128.02	2+	[E2]		
		1766.20 *10*	100.0 *18*	511.850	2+	E2		Mult.: from α(K)exp in ^{105}Pd(n,γ)(n,e).
2283.05	4+	1053.77 *21*	100 *15*	1229.30	4+	M1,E2		Mult.: from α(K)exp in (n,γ).
		1771.1 *3*	4.2 *7*	511.850	2+			
2305.62	4−	221.701 *10*	32.3 *11*	2083.92	3−	M1+E2	−0.11 *2*	B(M1)(W.u.)=0.00022 *6*; B(E2)(W.u.)=0.048 *21*
		228.630 *20*	10.2 *5*	2077.01	6+			E_γ: No final level within 0.13 keV. E1 suggested in ^{106}Rh β^- decay (131 min) but impossible if J$^\pi$(2305)=4− and J$^\pi$(2077)=6+.
		748.44 *7*	100.0 *26*	1557.68	3+	E1		B(E1)(W.u.)=2.5×10^{-7} *7* E_γ: No final level within 0.33 keV.
		1077.2 *5*	0.26 *9*	1229.30	4+			
		1178.07 *21*	0.94 *13*	1128.02	2+	[M2]		B(M2)(W.u.)=0.0020 *6*
		1794.01 *27*	0.18 *7*	511.850	2+	[M2]		B(M2)(W.u.)=4.7×10^{-5} *22*
2308.82	2+	751.30 *20*	3.9 [&] *8*	1557.68	3+			
		1180.72 *6*	52.6 [&] *13*	1128.02	2+	M1+E2	−0.06 *12*	
		1796.97 *7*	100.0 [&] *15*	511.850	2+	M1+E2	+0.25 *2*	

γ(^{106}Pd) (continued)

E$_i$(level)	J$^\pi_i$	E$_\gamma$[†]	I$_\gamma$[†]	E$_f$	J$^\pi_f$	Mult.[b]	δ[c]	Comments
2308.82	2$^+$	2309.30 20	≤9.0[&]	0.0	0$^+$			I$_\gamma$: taken from ^{106}Rh β^- decay using the ratio Iγ(2309 from 2309) /Iγ(1180γ+1797γ)≤0.051 8 from ε decay but taking into account the division of the I(2309γ) of the doublet of 2309γ between 2308 and 2821 levels.
2350.86	4$^+$	418.71 28	5.2 10	1932.32	4$^+$			
		793.30 25	83 4	1557.68	3$^+$	M1+E2	−7.5 15	
		1121.60 18	8.1 9	1229.30	4$^+$			
		1222.88 12	100 5	1128.02	2$^+$	E2		
		1839.05 10	29 4	511.850	2$^+$	E2		
2366.01	5$^+$	433.9 4	2.2 9	1932.32	4$^+$			
		808.37 10	100 5	1557.68	3$^+$	(M1+E2)	+1.0 8	Mult.: deduced under the assumption J^π(2365)=4$^+$. γγ(θ) also consistent with mult(808γ)=E2 and J^π(2365)=5$^+$. M1 fraction impossible if J$^\pi$(2566)=5$^+$ and J$^\pi$(1557)=3$^+$.
		1136.85 19	5.7 7	1229.30	4$^+$			
2397.41	(5)$^-$	1168.25 25	100	1229.30	4$^+$	E1+M2	−0.04 2	
2400.84	2$^-$,3$^-$	1272.4 3	100 12	1128.02	2$^+$			
		1889.7 4	52 12	511.850	2$^+$			
2439.10	2$^+$	1209.80 20	2.9 7	1229.30	4$^+$			
		1305.20 20	8.7 9	1133.76	0$^+$			
		1927.27 10	100.0 26	511.850	2$^+$	[M1+E2]	−0.07 +3−7	
		2439.07 12	30.1 13	0.0	0$^+$	[E2]		
2472.26	1$^+$,2$^+$	471.5[#] 2	[#]	2001.48	0$^+$			
		765.67[‡] 12	83[‡] 8	1706.44	0$^+$			
		1960.17[‡] 20	100[‡] 17	511.850	2$^+$			
2484.66	(1$^-$)	1973.5 10	20 11	511.850	2$^+$			
		2484.60 20	100 7	0.0	0$^+$			
2500.31	2$^-$	942.6 4	2.2 5	1557.68	3$^+$			
		1372.30 30	7.9 7	1128.02	2$^+$			
		1988.44 8	100.0 8	511.850	2$^+$	E1+M2	−0.05 +3−5	
2578.56	(5$^-$)	1020.7[#] 3	50[#] 8	1557.68	3$^+$			
		1349.5[#] 6	100[#] 11	1229.30	4$^+$			
2591.6	(2,3)$^+$	659.3[#] 3	100[#]	1932.32	4$^+$			
2624.40	0$^+$	1062.14 5	92.9 12	1562.25	2$^+$			
		1496.33 13	64.5 18	1128.02	2$^+$			
		2112.54 6	100 5	511.850	2$^+$	[E2]		
2626.84	(2,3)$^+$	1064.60[‡] 11	12[‡a] 2	1562.25	2$^+$			
		1498.80[‡] 20	≤100[‡a]	1128.02	2$^+$			Discrepancies exist for branching ratios of the 2626 and 3054 keV levels in (n,γ) and (n,n′γ) due to unresolved doublet of 1498γ deexciting both levels.
		2114.95[‡] 13	49[‡a] 7	511.850	2$^+$			
2648.9	4$^+$	1086.5[#] 5	100[#]	1562.25	2$^+$			

$^{106}_{46}Pd_{60}$-8

Adopted Levels, Gammas (continued)

γ(^{106}Pd) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[†]	E_f	J^π_f	Mult.[b]	δ[c]	Comments
2699.37	(6)$^-$	301.99[@] *10*	100[@] *3*	2397.41	(5)$^-$	M1+E2	+0.64 *22*	B(M1)(W.u.)=0.0010 *3*; B(E2)(W.u.)=3.9 *21*
		393.36[@] *20*	14[@] *2*	2305.62	4$^-$	E2		B(E2)(W.u.)=0.50 *13*
2705.30	(1)$^+$	702.8 *10*	6 *4*	2001.48	0$^+$			
		1572.40 *20*	3.8 *4*	1133.76	0$^+$			E_γ: No final level within 0.68 keV.
		1577.20 *20*	22 *4*	1128.02	2$^+$			
		2193.30 *10*	100 *6*	511.850	2$^+$	M1+E2	−0.17 *6*	
		2705.02 *18*	50.5 *20*	0.0	0$^+$			
2713.89	2$^+$,3$^+$	1156.28[‡] *12*	100[‡] *13*	1557.68	3$^+$			
		1484.49[‡] *11*	50[‡] *7*	1229.30	4$^+$			
		2202.07[‡] *15*	30[‡] *5*	511.850	2$^+$			
2717.59		1159.90 *20*	100	1557.68	3$^+$			
2741.0	4$^+$	2229.5[#] *10*	51[#] *13*	511.850	2$^+$			
		2740.9[#] *5*	100[#] *28*	0.0	0$^+$			
2748.2	2,3$^-$	2236.3[#] *4*	100[#]	511.850	2$^+$			
2757.06	5$^+$	178.2 *5*	0.19 *6*	2578.56	(5$^-$)			
		391.039 *30*	13.3 *5*	2366.01	5$^+$	E2(+M1)		B(M1)(W.u.)>2.1×10^{-6}; B(E2)(W.u.)>0.012 $\delta\approx-16$ from $\gamma(\theta)$ (1975Sc38) in ^{106}Ag ε decay (8.28 d).
		406.17 *3*	47.6 *11*	2350.86	4$^+$	M1+E2	−3.2 *2*	B(M1)(W.u.)>1.1×10^{-6}; B(E2)(W.u.)>0.063
		450.97 *3*	100.0 *22*	2305.62	4$^-$	E1		B(E1)(W.u.)>2.8×10^{-7}
		474.060 *30*	3.31 *19*	2283.05	4$^+$	M1+E2	−4.0 *+9−6*	B(M1)(W.u.)>2.0×10^{-8}; B(E2)(W.u.)>0.0021
		680.420 *10*	5.50 *28*	2076.69	4$^+$	M1,E2		
		824.79 *15*	54.7 *14*	1932.32	4$^+$	M1+E2	−6.5 *6*	B(M1)(W.u.)>3.5×10^{-8}; B(E2)(W.u.)>0.0023
		1199.39 *10*	40.0 *19*	1557.68	3$^+$	E2		B(E2)(W.u.)>0.00026
		1527.65 *19*	58 *15*	1229.30	4$^+$	M1+E2	−2.46 *9*	B(M1)(W.u.)>4.1×10^{-8}; B(E2)(W.u.)>9.7×10^{-5}
2775.9	(4$^+$)	533.53[‡] *12*	64[‡] *8*	2242.48	2$^+$			
		1218.26[‡] *14*	100[‡] *17*	1557.68	3$^+$			
		1546.64[‡] *16*	36[‡] *6*	1229.30	4$^+$			
		2263.84[‡] *17*	64[‡] *11*	511.850	2$^+$			
2783.74	2$^+$	1554.50[‡] *15*	3.7[‡] *10*	1229.30	4$^+$			
		1655.66[‡] *17*	7.3[‡] *10*	1128.02	2$^+$			
		2271.84[‡] *15*	100[‡] *16*	511.850	2$^+$			
2793.67	(7$^-$)	396.26[@] *5*	100[@] *2*	2397.41	(5)$^-$	(E2)		
		717.1[@] *4*	81[@] *5*	2077.01	6$^+$	(E1)		
2820.97	2$^+$	1258.80 *20*	13.3[&] *19*	1562.25	2$^+$			
		1687.40 *30*	13[&] *3*	1133.76	0$^+$			
		1693.20 *30*	15[&] *3*	1128.02	2$^+$			
		2309.00 *10*	100.0[&] *29*	511.850	2$^+$			I_γ: taken from ^{106}Rh β^- decay using the ratio Iγ(2309 from 2309) /Iγ(1180γ+1797γ)≤0.051 *8* from ε decay but taking into account the

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γ(^{106}Pd) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[b]	δ[c]	α[d]	Comments
									division of the I(2309γ) of the doublet of 2309γ between 2308 and 2821 levels.
2820.97	2^+	2821.10 *30*	28[&] *1*	0.0	0^+				
2828.29	0^+	1266.00 *20*	16.3 *16*	1562.25	2^+				
		2316.42 *9*	100.0 *9*	511.850	2^+	E2			
2850.6	$2^+,3^+$	1621.3[#] *4*	100[#]	1229.30	4^+				
2861.4	$(^+)$	1303.4[#] *4*	100[#] *28*	1557.68	3^+				
		1631.7[#] *6*	52[#] *12*	1229.30	4^+				
2877.92	0^+	1315.70 *20*	14.9 *9*	1562.25	2^+	[E2]			
		2366.04 *7*	100.0 *9*	511.850	2^+	[E2]			
2886.5	$(^-)$	2374.6[#] *7*	100[#]	511.850	2^+				
2898.1	$(1^-,4^-)$	1668.8[#] *7*	100[#]	1229.30	4^+				
2902.48	2^+	1774.5 *7*	19 *3*	1128.02	2^+				
		2390.60 *10*	100.0 *22*	511.850	2^+	(M1+E2)	−0.10 *+7−10*		
		2902.5 *8*	1.0 *3*	0.0	0^+				
2908.7	(1^-)	2396.8[#] *7*	100[#]	511.850	2^+				
2917.86	2^+	1355.70 *30*	4.4 *10*	1562.25	2^+				
		1360.20 *30*	15.4 *4*	1557.68	3^+				
		1784.10 *30*	3.0 *8*	1133.76	0^+				
		2405.96 *9*	100.0 *28*	511.850	2^+	M1+E2	−0.05 *+2−5*		
		2917.90 *30*	6.34 *28*	0.0	0^+				
2936.0	$(2^-,3^-)$	2424.1[#] *6*	100[#]	511.850	2^+				
2951.84	5^+	195.06 *15*	19.5 *20*	2757.06	5^+	M1(+E2)	0.13 *+22−13*	0.061	α(K)exp=0.061 *12* α(K)(M1)=0.053, α(K)(E2)=0.108.
		585.97 *10*	28.2 *26*	2366.01	5^+	M1(+E2)	0.13 *+22−13*		
		601.17 *7*	100 *4*	2350.86	4^+	M1+E2	−3.0 *7*		B(M1)(W.u.)>6.0×10^{-7}; B(E2)(W.u.)>0.021
		646.02 *5*	90 *4*	2305.62	4^-	E1			B(E1)(W.u.)>1.0×10^{-7}
		874.81 *18*	20.7 *27*	2077.01	6^+				
		1019.9 *3*	66 *5*	1932.32	4^+	M1,E2			
		1394.35 *14*	93 *11*	1557.68	3^+	[E2]			B(E2)(W.u.)>0.00034 E_γ: taken from ^{106}Ag ε decay (8.46 d).
		1722.76 *18*	74 *14*	1229.30	4^+	(M1+E2)	−2.5 *14*		B(M1)(W.u.)>1.5×10^{-9}; B(E2)(W.u.)>6.9×10^{-5}
2963.0	8^+	886.0[@] *3*	100[@]	2077.01	6^+	E2			B(E2)(W.u.)=105 *23* B(E2)(W.u.)=107 *+13−26* in Coul. ex. (1995Sv01).
2968.68	3^-	2456.8 *2*	100	511.850	2^+				E_γ: taken from ^{106}Rh β^- decay (29.8 s).
2977.93	(7^-)	901.1[@] *2*	100[@]	2077.01	6^+	(E1)			
2998.77	(8^-)	205.11[@] *5*	100[@] *6*	2793.67	(7^-)	(M1+E2)	+0.21 *2*		B(M1)(W.u.)>0.0062; B(E2)(W.u.)>4.6 Mult.: from level scheme.
		299.39[@] *10*	96[@] *10*	2699.37	$(6)^-$	(E2)			B(E2)(W.u.)>19
3037.32	1,2	1909.30 *20*	100 *7*	1128.02	2^+				

Adopted Levels, Gammas (continued)

γ(^{106}Pd) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[†]	E_f	J^π_f	Mult.[b]	δ[c]	Comments
3037.32	1,2	2525.2 6	14.3 29	511.850	2⁺			
		3037.30 30	71.4 29	0.0	0⁺			
3054.97	1⁺	1498.80 20	100[&a] 6	1557.68	3⁺			E_γ: No final level within 0.89 keV. Discrepancies exist for branching ratios of the 2626 and 3054 keV levels in (n,γ) and (n,n′γ) due to unresolved doublet of 1498γ deexciting both levels.
		2542.70 10	44[&a] 2	511.850	2⁺	[M1+E2]	+0.07 7	
		3055.0 4	5[&a] 1	0.0	0⁺			
3069.9	(2,3)⁻	2558.0[#] 6	100[#]	511.850	2⁺			
3083.91	0	1954.6 4	12.7 28	1128.02	2⁺			
		2571.10 20	100 4	511.850	2⁺	Q		E_γ: No final level within 0.78 keV.
3120.0	2⁺,3⁺	2608.1[#] 10	100[#]	511.850	2⁺			
3161.0	2⁺	1602.2[#] 12	23[#] 12	1557.68	3⁺			
		2649.3[#] 5	100[#] 18	511.850	2⁺	Q		
3163.7	(1,2⁺)	2651.7 3		511.850	2⁺			
		3165.4[#] 13	[#]	0.0	0⁺			
3173.8	(2⁺,3⁺)	1616.4[#] 6	93[#] 28	1557.68	3⁺			
		2045.1[#] 9	100[#] 23	1128.02	2⁺			
3176.77	(8⁻)	199.0[@] 3	46[@] 8	2977.93	(7⁻)	(D+Q)		Mult.: no δ given in ^{96}Zr(^{13}C,3nγ).
		383.11[@] 20	100[@] 12	2793.67	(7⁻)	D+Q		δ=−0.55 25 γ(θ); −0.38 11 or −1.5 3 γγ(θ) in ^{96}Zr(^{13}C,3nγ).
		477.0[@] 3	62[@] 12	2699.37	(6)⁻			
3221.37	0⁺	2093.3 4	9.8 22	1128.02	2⁺	[E2]		
		2709.5 3	100 27	511.850	2⁺	[E2]		
3249.9	2⁺	3249.8 5	100	0.0	0⁺			
3252.0	2⁺	2740.1 4	100	511.850	2⁺			
3273.5	1,2	3273.4 7	100	0.0	0⁺			
3289.65	(9⁻)	290.89[@] 10	63[@] 2	2998.77	(8⁻)	D+Q	+0.36 4	
		495.97[@] 5	100[@] 5	2793.67	(7⁻)	E2		B(E2)(W.u.)=1.9 10
3299.2		2787.3 7	100	511.850	2⁺			
3320.5	0⁺	2185.7[e] 5	35 9	1133.76	0⁺			E_γ,I_γ: if J^π=0⁺ for 3320 and 1133 level than 2185γ is impossible.
		2809.00 30	100 6	511.850	2⁺	[E2]		
3461.89	9$^{(-)}$	285.0[@] 5	27[@] 9	3176.77	(8⁻)	D+Q	−0.9 5	
		463.03[@] 20	64[@] 9	2998.77	(8⁻)	D+Q	−0.9 5	
		484.2[@] 3	41[@] 9	2977.93	(7⁻)			
		668.1[@] 3	100[@] 14	2793.67	(7⁻)			
3533.5	10⁺	570.47[@] 5	100[@]	2963.0	8⁺	E2		
3654.16	10$^{(-)}$	655.40[@] 15	100[@]	2998.77	(8⁻)	(E2)		
3874.80	(10⁻)	412.8[@] 3	30[@] 8	3461.89	9$^{(-)}$			

$^{106}_{46}Pd_{60}$-11

$\gamma(^{106}Pd)$ (continued)

E_i(level)	J_i^π	E_γ†	I_γ†	E_f	J_f^π	Mult.[b]	δ[c]
3874.80	(10^-)	697.96[@] *20*	100[@] *8*	3176.77	(8^-)	(Q)	
		876.3[@] *3*	44[@] *26*	2998.77	(8^-)		
3949.1	(10^+)	986.1[@] *3*	100[@]	2963.0	8^+	(E2)	
4021.73	$11^{(-)}$	367.6[@] *2*	8[@] *2*	3654.16	$10^{(-)}$		
		732.07[@] *10*	100[@] *6*	3289.65	(9^-)	(Q)	
4088.7	12^+	555.2[@] *2*	100[@] *5*	3533.5	10^+	E2	
4259.8	(11^-)	797.9[@] *3*	100[@] *15*	3461.89	$9^{(-)}$		
4640.2	(12^-)	986.1[@] *3*	100[@]	3654.16	$10^{(-)}$		
4721.8	$12^{(+)}$	633.1[@] *3*	100[@] *25*	4088.7	12^+		
		1188.3[@] *2*	100[@] *17*	3533.5	10^+	Q	
4752.3	(12^-)	877.5 *3*	100	3874.80	(10^-)		
4893.8	14^+	805.1[@] *2*	100[@]	4088.7	12^+	E2	
4990.1	(13^-)	968.4[@] *3*	100[@]	4021.73	$11^{(-)}$	(Q)	
5106.6	(12^+)	1017.9[@] *4*	100[@]	4088.7	12^+	(D+Q)	−0.36 *30*
5404.0	(14^+)	682.2[@] *2*	100[@] *12*	4721.8	$12^{(+)}$	(Q)	
		1315.3[@] *3*	76[@] *12*	4088.7	12^+	(Q)	
5895.0	(16^+)	1001.2[@] *3*	100[@]	4893.8	14^+		

† Unless noted otherwise, relative photon branchings from each level were calculated with least square procedures using data from ^{106}Rh β^- decay (29.8 s), ^{106}Rh β^- decay (130 min), ^{106}Ag ε decay (8.46 d) and ^{106}Ag ε decay (24 min) if all available, if not only available data sets used. Notify also the discrepancy between the gamma energies from 131-min ^{106}Rh β^- decay and the other data sets.

‡ From ^{105}Pd(n,γ)(n,e).

From ^{106}Pd(n,n′γ).

@ From ^{96}Zr(^{13}C,3nγ).

& From ^{106}Rh β^- decay.

a The 1498γ is doubly placed in (n,γ),(n,n′γ); however, the branchings in these data sets are not consistent if one assumes that the 2626 level is not fed in β^- decay. These branchings can be made consistent if part of 1498γ intensity in β^- decay is placed from the 2626 level. The 2114 level, which also deexcites 2626 level is not seen in β^- decay, but would be masked by strong 2112.5 γ.

b From α(K)exp, K:L1:L2:L3, $\gamma(\theta)$ and $\gamma\gamma(\theta)$ data.

c From $\gamma(\theta)$, $\gamma\gamma(\theta)$ or $\gamma(\theta)$ with polarized nuclei oriented at low T.

d Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

e Placement of transition in the level scheme is uncertain.

$^{106}_{46}Pd_{60}$-12

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

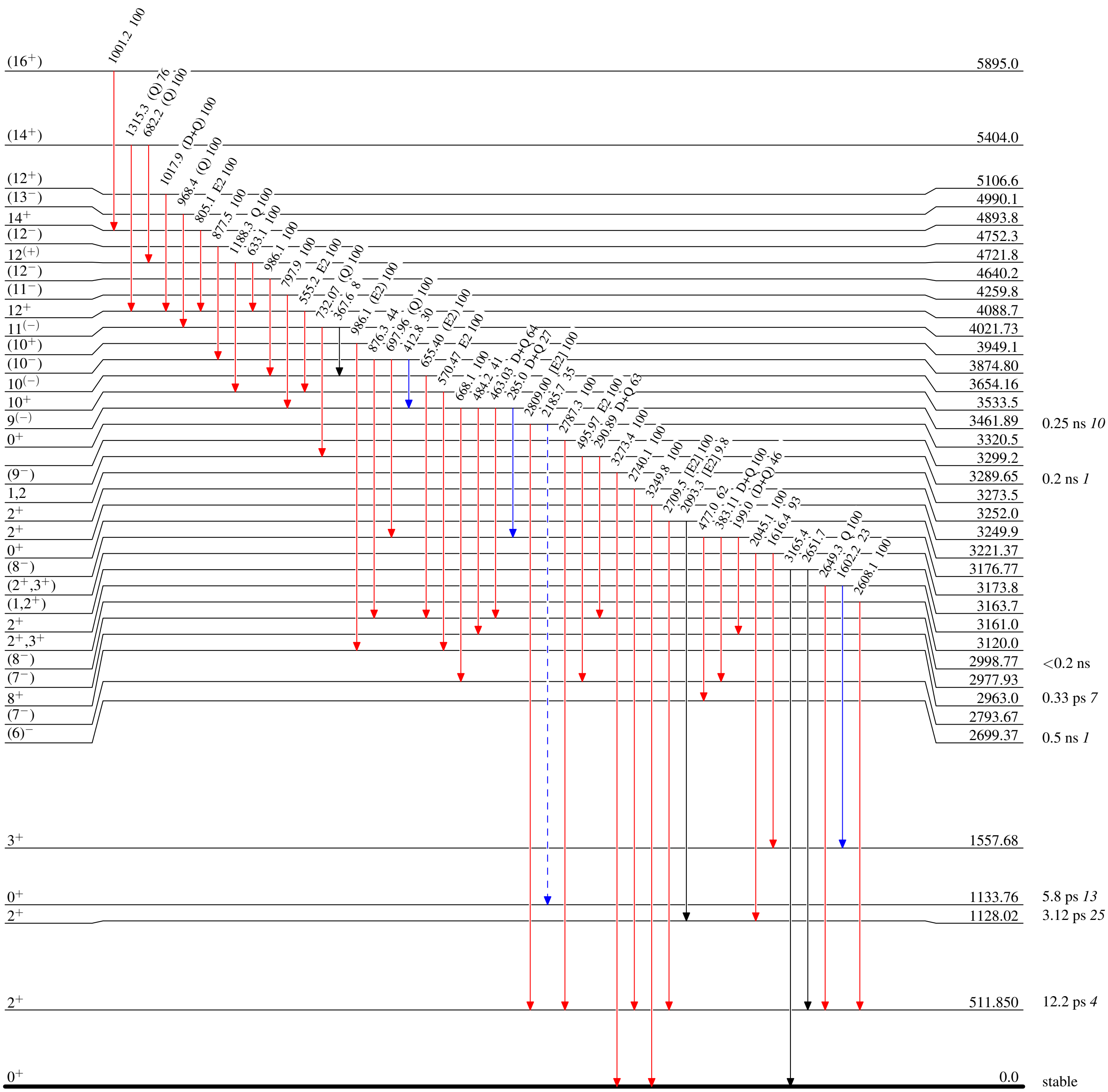
Legend

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

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

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

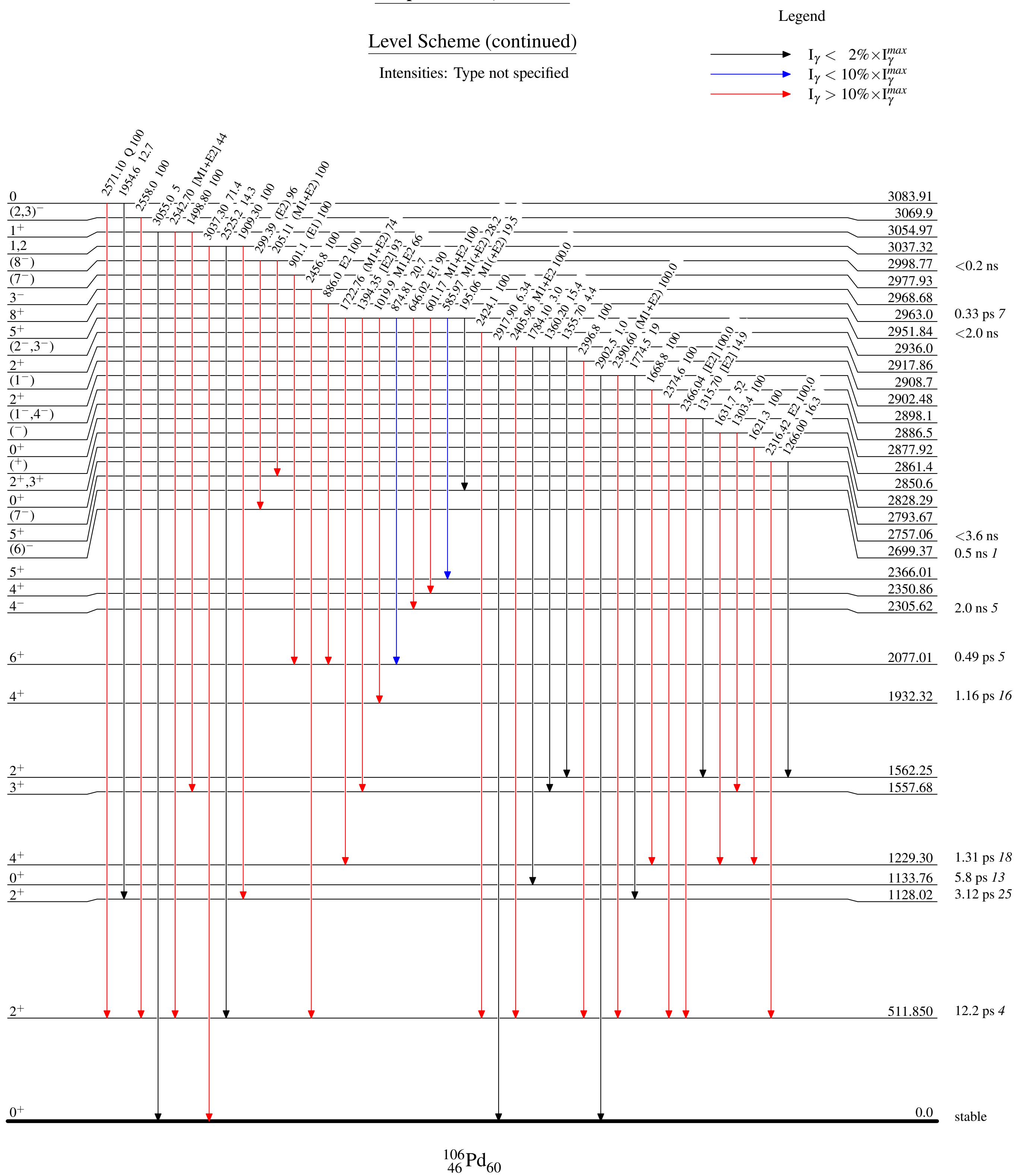
γ Decay (Uncertain)



Adopted Levels, Gammas

Level Scheme (continued)

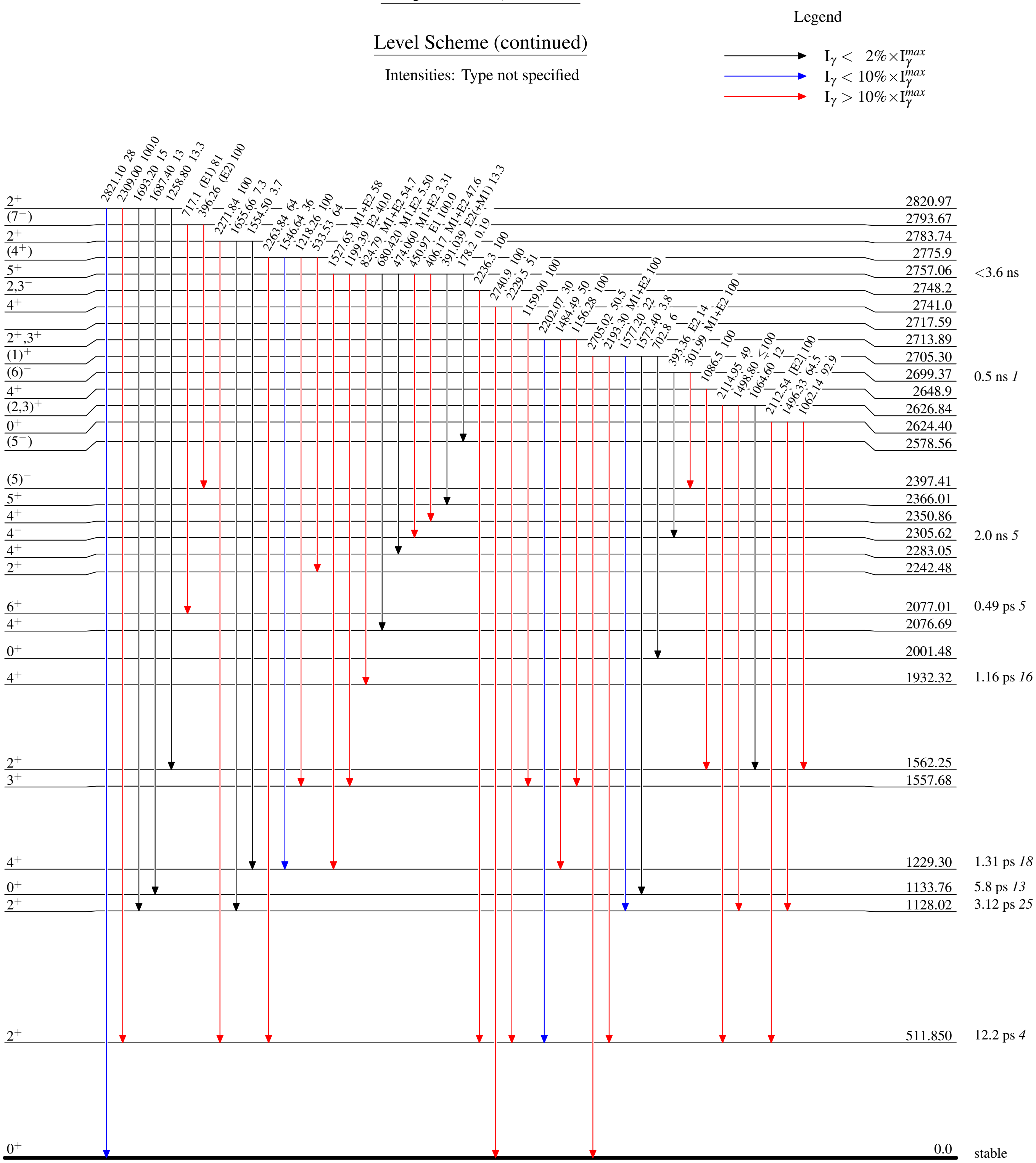
Intensities: Type not specified



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

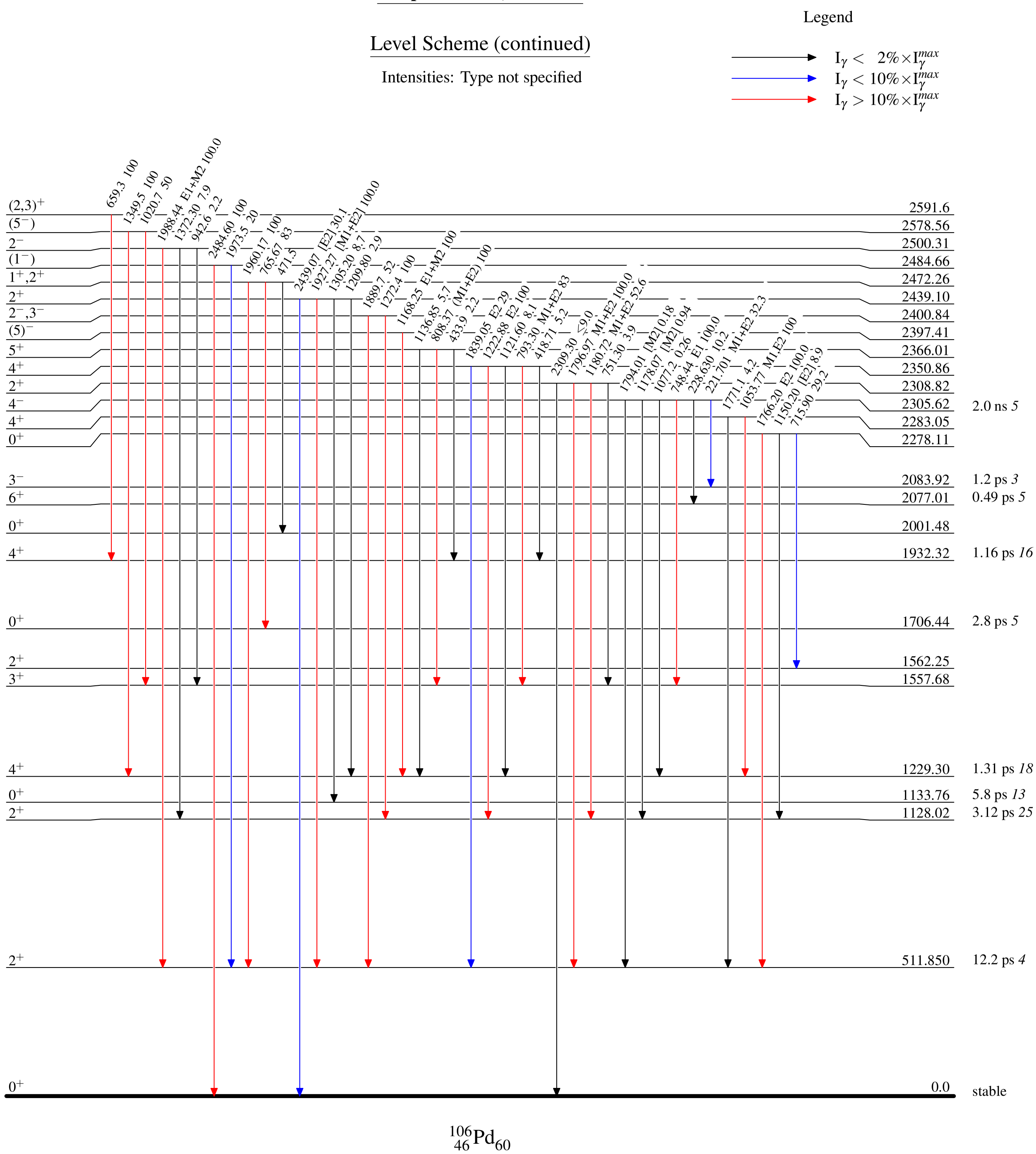


$^{106}_{46}Pd_{60}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified



Adopted Levels, Gammas

Level Scheme (continued)

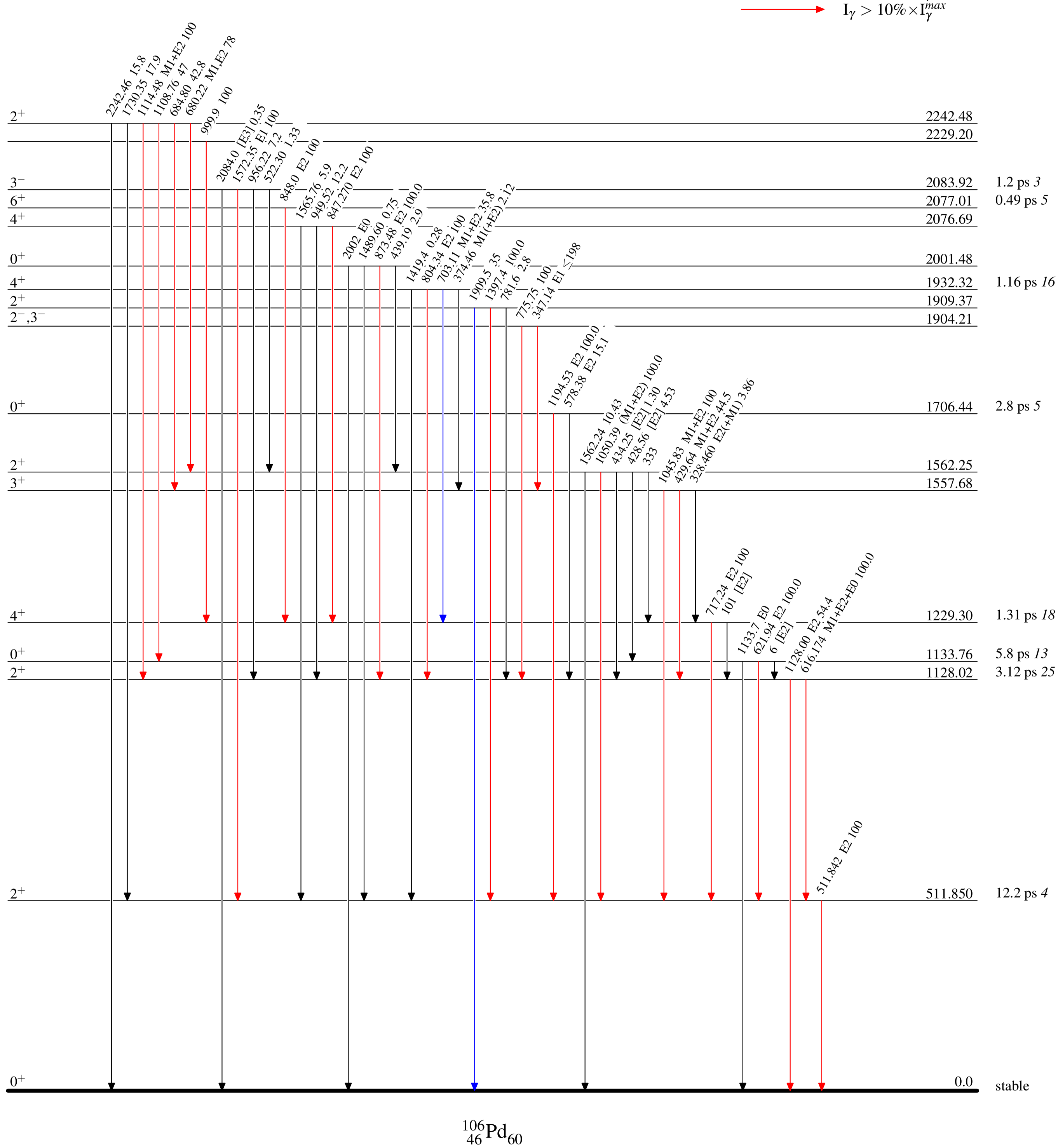
Intensities: Type not specified

Legend

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

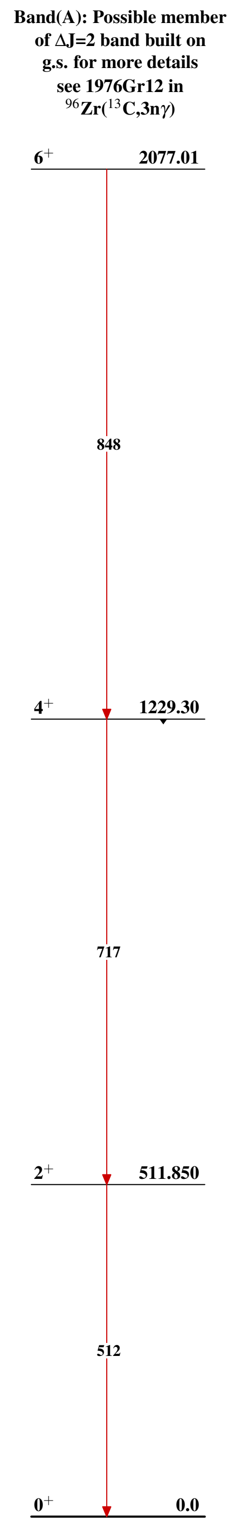
$I_\gamma < 10\% \times I_\gamma^{max}$

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



$^{106}_{46}Pd_{60}$

Adopted Levels, Gammas



$^{106}_{46}Pd_{60}$