Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 199,271 (2025)	1-Sep-2024

Q(β^-)=1588.0 *14*; S(n)=6700.8 *3*; S(p)=11463 *3*; Q(α)=−7601.1 *10* 2021Wa16
S(2n)=16614.2 *10*, S(2p)=21440 *40* (2021Wa16).

Other Reactions:

^{2}H(^{80}Se,pγ), E(^{80}Se)≈320 MeV (2007Ci05); investigated feasibility of measuring γ-rays in coincidence with (d,p) reaction protons in inverse kinematics using CD_2 targets; observed 765γ-468γ cascade and 1233γ from 1233 level.

2015Al19: Isotopic yield cross section σ(^{81}Se)=0.011 mb *3*, in spallation of ^{136}Xe-induced reactions on deuterium at 500 MeV/nucleon.

^{81}Se Levels

Cross Reference (XREF) Flags

A	^{81}As β^- decay	E	^{80}Se(pol d,p),(d,p)
B	^{81}Se IT decay (57.28 min)	F	^{82}Se(p,d)
C	^{80}Se(n,γ) E=thermal	G	^{82}Se(d,t)
D	^{80}Se(n,γ) E=res	H	^{208}Pb(^{18}O,Xγ)

E(level)[†]	J$^\pi$[#]	$T_{1/2}$	XREF	Comments
0	1/2⁻	18.5 min *1*	ABCDEFGH	%β^-=100 $T_{1/2}$: weighted average of 18.2 min *2* (1954Yt03), 18.6 min *1* (1957Ap46), 17.9 min *5* (1971Do09), and 18.2 min *2* (1975Fe07).
102.968[c] *10*	7/2⁺	57.28 min *2*	ABC EF H	%IT=99.913 *15*; %β^-=0.087 *15* J$^\pi$: L(d,p)=4, E3(+M4) γ to 1/2⁻. $T_{1/2}$: from 1989Ab18. Others: 57.28 min *5* (1971Do09), 56.6 min *6* (1967Ra08). All measurements from 103γ(t). %ε+%β^+ deduced by the evaluator using data of ^{81}Se IT decay and β^- decay (57.28 m). See ^{81}Se β^- decay (57.28 m) dataset.
294.19[c] *18*	9/2⁺		C EFGH	
467.75 *9*	3/2⁻		A CDEFg	
491.05 *10*	(5/2⁻)		A C Fg	J$^\pi$: log *ft*≈5.9 from 3/2⁻; L(p,d)=(3); E2 γ to 1/2⁻.
615.6? *5*			C	
624.10 *12*	5/2⁻		A C EFG	XREF: E(635).
782 *25*	7/2⁺,9/2⁺		F	J$^\pi$: L(p,d)=4.
889.41 *20*	(3/2⁺,5/2,7/2⁺)		C	J$^\pi$: γ from 3/2⁺, 786γ to 7/2⁺ 103. If 889γ to 1/2⁻ g.s. is correctly assigned, J$^\pi$=(3/2⁺,5/2⁻).
1052.73 *13*	5/2⁺		A C EFG	
1059.0[c] *3*	(11/2⁺)[b]		H	
1109 *25*	3/2⁺,5/2⁺		F	J$^\pi$: L(p,d)=2.
1232.79 *22*	1/2⁺		C E	J$^\pi$: L(d,p)=0.
1303.41 *16*	5/2⁺		A C EFG	
1373.0[c] *3*	(13/2⁺)[b]		H	
1406.28 *14*	3/2⁻		A C EFG	
1628 *25*	1/2⁻,3/2⁻		F	J$^\pi$: L(p,d)=1.
1702.5 *3*	3/2⁺		C E	
1711.25 *21*	(5/2⁻,1/2⁻,3/2)		C	J$^\pi$: γs to 1/2⁻ and 5/2⁻; absence of primary γ from 1/2⁺ favors the 5/2⁻ option.
1724.99 *15*	(3/2)⁺		CD F	J$^\pi$: primary γ from 1/2⁺; 1725γ to 1/2⁻ g.s.; L(p,d)=2 for level at 1753 *25*, assumed by evaluator to be the same as this 1725 level.
1812 *25*	7/2⁺,9/2⁺		F	J$^\pi$: L(p,d)=4.
1828.1 *3*	3/2⁺		C E	
2029.65 *15*	1/2⁻,3/2⁻		A EF	XREF: E(2036)F(2056).

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{81}Se Levels (continued)

E(level)[†]	J^{π}[#]	XREF	Comments
			J^{π}: L(p,d)=1 for E(level)=2056 *25*; consistent with observed gammas to $1/2^-$ and $3/2^-$.
2150 *25*	$1/2^-,3/2^-$	F	J^{π}: L(p,d)=1.
2173.9 *5*		C ef	XREF: e(2175)f(2199). J^{π}: γ to $5/2^-$ and to $3/2^-$. L=2 in (p,d) and (pol d,p) for 2174 and/or 2179 level(s).
2179.32 *17*		A ef	XREF: e(2175)f(2199). J^{π}: γ to $(5/2^-)$. L=2 in (p,d) and (pol d,p) for 2174 and/or 2179 level(s).
2252.96 *23*	$(5/2^+)$	C	J^{π}: 1785γ to $3/2^-$ 468; 1960γ to $9/2^+$ 294; primary γ from $1/2^+$. Assignment implies [E2] for primary γ from $1/2^+$.
2282 *25*	$1/2^-,3/2^-$	F	J^{π}: L(p,d)=1.
2333.07 *20*	$5/2^+$	A C EF	J^{π}: $5/2^+$ from (pol d,p), consistent with primary γ from $1/2^+$ but 2332γ to $1/2^-$ g.s. implies level half-life > 1.7 ps for B(M2) W.u. $\leq$ 1 (RUL). L(p,d)=(2+4) for E=2325, so another π=+ level may exist at approximately this energy.
2383.4 *3*	$(5/2^-,7/2,9/2^-)$	C	J^{π}: 1892γ to $(5/2^-)$ 491, no primary γ from $1/2^+$.
2475 *25*		F	
2532[‡]	$(5/2)^+$	EF	J^{π}: $J^{\pi}=5/2^+$ from (pol d,p) is in conflict with L(p,d)=4. The evaluator adopts $(5/2)^+$ because the DWBA fit is better and $\sigma(\theta)$ spans a greater angular range in the (d,p) measurement. Alternatively, a different level with $J^{\pi}=7/2^+,9/2^+$ and similar energy may be excited in (p,d).
2568.8 *9*	(1/2,3/2)	C	J^{π}: primary γ from $1/2^+$; 2570γ to $1/2^-$ g.s. and 1162γ to $3/2^-$ 1406.
2569.97 *13*	$(1/2^-,3/2^-,5/2^-)$	A	J^{π}: log *ft*=5.3 from $3/2^-$.
2596[‡]	$1/2^-,3/2^-$	EF	J^{π}: L(p,d)=1.
2659.65 *20*	$(5/2)^-$	A EF	J^{π}: log *ft*=5.8 from $3/2^-$; L(p,d)=3.
2691.3[c] *4*	$(15/2^+,17/2^+)$[b]	H	
2734[‡]		E	
2769.76 *17*	$(5/2^-)$[@]	A f	XREF: f(2763). J^{π}: log *ft*=5.3 from $3/2^-$; L(p,d)=(3+2).
2773.6 *5*	$5/2^+$	C Ef	XREF: f(2763).
2832.2 *5*	$(17/2^-)$[b]	H	J^{π}: negative parity assigned (^{18}O,xγ) based on non-observation of a transition to $(13/2^+)$ state at 1372.
2891[‡]	$(7/2^+,9/2^+)$[&]	Ef	XREF: f(2893).
2935.17 *14*	$(5/2)^-$[&]	A f	XREF: f(2893). J^{π}: log *ft*=4.9 from $3/2^-$; 2832γ to $7/2^+$ 103. Consistent with L=(3) component of 2893 doublet in (p,d).
2938[‡]	$(1/2^+)$	E	J^{π}: L(d,p)=(0).
2953.4 *20*	$1/2,3/2,5/2^+$	C	J^{π}: primary γ from $1/2^+$.
2965.08 *19*	$(5/2^-)$[a]	A F	XREF: F(2985). J^{π}: log *ft*=5.2 from $3/2^-$; 1662γ to $5/2^+$ 1304; L(p,d)=(3).
2985 *25*	$(7/2^+,9/2^+)$[a]	F	
2986[‡]	$(1/2^+)$	E	J^{π}: L(d,p)=(0).
3053[‡] *6*	$3/2^+$	EF	XREF: F(3087).
3093[‡]		E	
3150[‡] *25*	$(^-)$	F	J^{π}: L(p,d)=(1+3).
3208[‡]		E	
3222.7? *16*	$(5/2)^-$	A Ef	XREF: f(3257). E(level): from β^- decay; see comment in source data set. J^{π}: γ to $(5/2^-)$ and $7/2^+$, log *ft*>4.9 from $3/2^-$ (if deexcitation γ rays placed correctly).
3287[‡]		Ef	XREF: f(3257).
3308[‡]		E	
3349[‡] *25*	$1/2^-,3/2^-$	F	J^{π}: L(p,d)=1.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{81}Se Levels (continued)

E(level)[†]	J^{π}[#]	XREF	Comments
3379[‡]		E	
3411[‡]		E	
3435[‡]		E	
3477[‡]		E	
3525.7 *11*	1/2,3/2,5/2$^+$	C E	E(level): from (n,γ) E=Thermal. J^{π}: primary γ from 1/2$^+$.
3562[‡]		E	
3682[‡]	3/2$^+$	E	
3774[‡]	3/2$^+$,5/2$^+$	E	J^{π}: L(d,p)=2.
3801.1		H	
3830[‡]	1/2$^+$	E	
3920?	(1/2$^+$)	E	J^{π}: L(d,p)=(0).
3970?	(1/2$^+$)	E	J^{π}: L(d,p)=(0).
4095[‡]		E	
4137[‡]		E	
4164[‡]		E	
4215[‡]	(3/2$^+$,5/2$^+$)	E	J^{π}: L(d,p)=(2).
4260[‡]	(3/2$^+$,5/2$^+$)	E	J^{π}: L(d,p)=(2).
4437[‡]		E	
4559[‡]		E	
4656[‡]		E	
4708[‡]		E	
4845[‡]		E	
4958[‡]		E	
5080[‡]		E	
5180?		E	
5330?		E	

[†] From a least-squares fit to Eγ if ΔE<1 keV; from (p,d) if ΔE=25 keV; from (pol d,p) otherwise. Based on a comparison with E(level) derived from Eγ data for E(level)<3550, E(level) data from 1978Mo12 and 1960Ca16 in (d,p) are reliable to better than 6 keV (typically 0-2 keV), with the exception of the 635 level (which is 11 keV high). For E(level)>1400, E(level) values from (p,d) are 10-30 keV higher than those from (d,p). The evaluator, therefore, adopts E(level) from (d,p) in preference to E(level) from (p,d).

[‡] Estimated ΔE≈6 keV from level energy deviations of (d,p) dataset from adopted values by more than 6 keV.

[#] From (pol d,p), unless noted otherwise. From DWBA analysis of angular distribution and vector analyzing power (1978Mo12).

[@] L(p,d)=(2+3) for 2763 *25* state. Evaluator assumes this to be 2770+2774 doublet, in which case the L=(2) component would correspond to the 2774 level, leaving the L=(3) component to correspond to the 2770 level, thus favoring J^{π}=5/2$^-$,7/2$^-$ for it.

[&] L(p,d)=(3+4) for 2893 *25* state. Evaluator assumes this to be 2891+2935 doublet, in which case the L=(3) component would correspond to the 2935 level leaving the L=(4) component to correspond to the 2891 level, favoring J^{π}=7/2$^+$,9/2$^+$ for this level.

[a] L(p,d)=(3+4) for 2985 *25* state. Evaluator assumes this to be a doublet, in which case the L=(3) component could correspond to the 2965 level leaving the L=(4) component to correspond to an E≈2986 level and favoring J^{π}=7/2$^+$,9/2$^+$ for this level. The L(d,p)=(0) state at E=2986 is then presumed to be a different level.

[b] Based on the assumption (by authors in 2009Po04 (^{18}O,xγ)) that in yrast decays spin values increase with excitation energy. See the dataset for other assumptions.

[c] Band(A): Yrast sequence.

$\gamma(^{81}Se)$

Additional information 1.

E_i(level)	J^π_i	E_γ[†]	I_γ[†]	E_f	J^π_f	Mult.	δ	α[&]	Comments
102.968	7/2$^+$	102.968 *10*	100	0	1/2$^-$	E3(+M4)	<0.0056	6.80 *10*	B(E3)(W.u.)=9.47×10^{-4} *13* α(K)=5.30 *7*; α(L)=1.286 *18*; α(M)=0.2006 *28* α(N)=0.01349 *19* E_γ,I_γ,Mult.: from ^{81}Se IT decay. δ: <0.0056 if B(M4)(W.u.)<30. From α(K)exp=7.1 *3* and α(L)exp=1.6 *3* (^{81}Se IT decay) using BriccMixing code, one gets δ=0.171 *1*; yields higher value compared to RUL.
294.19	9/2$^+$	190.83 *23*	100	102.968	7/2$^+$				E_γ: weighted average of 191.05 *20* from (n,γ) E=thermal and 190.6 *2* from (^{18}O,Xγ).
467.75	3/2$^-$	467.74 *15*	100	0	1/2$^-$				
491.05	(5/2$^-$)	388.2 *2*	10.6 *8*	102.968	7/2$^+$				E_γ: weighted average of 388.1 *2* from ^{81}As β^- decay and 388.4 *3* from (n,γ) E=thermal. I_γ: weighted average of 10.1 *12* from ^{81}As β^- decay and 10.8 *8* from (n,γ) E=thermal. Mult.: L≤2 from RUL and 40-ns coin resolving time in (n,γ) E=thermal. Mult.=M2 implies $T_{1/2}$(491 level)>17 ns if B(M2)(W.u.)<1, so is unlikely. If $T_{1/2}$(491 level)>40 ns, B(E2)(W.u.)<0.007 (also unlikely).
		491.28 *15*	100.0[‡] *12*	0	1/2$^-$	(E2)		0.00291 *4*	α(K)=0.00258 *4*; α(L)=0.000279 *4*; α(M)=4.33×10^{-5} *6* α(N)=3.64×10^{-6} *5* E_γ: weighted average of 491.2 *2* from ^{81}As β^- decay and 491.33 *15* from (n,γ) E=thermal. Mult.: D,E2 from RUL and 40-ns coin resolving time in (n,γ) E=thermal; ΔJ>1 from level scheme.
615.6?		126[b] *1*		491.05	(5/2$^-$)				
		148[b] *1*		467.75	3/2$^-$				
624.10	5/2$^-$	156.1 *2*	20.3[‡] *29*	467.75	3/2$^-$	[M1,E2]		0.09 *6*	α(K)=0.08 *6*; α(L)=0.010 *7*; α(M)=0.0015 *11* α(N)=1.2×10^{-4} *8* E_γ: weighted average of 156.0 *2* from ^{81}As β^- decay and 156.4 *3* from (n,γ) E=thermal. Mult.: M1,E2 expected for 5/2$^-$ to 3/2$^-$ transition.
		521.1[‡] *2*	100[‡] *10*	102.968	7/2$^+$				
889.41	(3/2$^+$,5/2,7/2$^+$)	264.8 *3*	29 *7*	624.10	5/2$^-$				

$^{81}_{34}Se_{47}$-4

$\gamma(^{81}$Se) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[†]	E_f	J^π_f	Comments
889.41	(3/2+,5/2,7/2+)	399.8[a] *6*	≤32[a]	491.05	(5/2−)	
		786.4 *4*	100 *27*	102.968	7/2+	
		889[b] *1*	125	0	1/2−	
1052.73	5/2+	757.6 *3*	100 *12*	294.19	9/2+	
		949.68 *20*	<298	102.968	7/2+	E_γ: weighted average of 949.7 *2* from ^{81}As β^- decay and 949.65 *25* from (n,γ) E=thermal. I_γ: for doublet in (n,γ) E=thermal; undivided Iγ given. Only this branch is reported in β^- decay.
1059.0	(11/2+)	764.7[@#] *3*	100	294.19	9/2+	
1232.79	1/2+	765.04 *20*	100 *8*	467.75	3/2−	
		1232.7[a]	≤25[a]	0	1/2−	
1303.41	5/2+	812.5[a] *6*	≤29[a]	491.05	(5/2−)	
		835.92 *20*	100 *11*	467.75	3/2−	E_γ: weighted average of 836.1 *2* from ^{81}As β^- decay and 835.74 *20* from (n,γ) E=thermal.
		1201.0 *10*	36 *27*	102.968	7/2+	
1373.0	(13/2+)	313.9[#@] *3*	37[#] *7*	1059.0	(11/2+)	
		1078.9[#] *2*	100[#] *10*	294.19	9/2+	
1406.28	3/2−	915.0 *2*	9.5 *20*	491.05	(5/2−)	E_γ: weighted average of 915.0 *2* from ^{81}As β^- decay and 915.4 *6* from (n,γ) E=thermal. I_γ: weighted average of 10.2 *20* from ^{81}As β^- decay and 7.7 *31* from (n,γ) E=thermal.
		938.8 *2*	28.8 *31*	467.75	3/2−	E_γ: weighted average of 938.9 *2* from ^{81}As β^- decay and 938.7 *3* from (n,γ) E=thermal. I_γ: weighted average of 33 *6* from ^{81}As β^- decay and 27.7 *31* from (n,γ) E=thermal.
		1406.1 *3*	100.0[‡] *12*	0	1/2−	E_γ: weighted average of 1406.0 *2* from ^{81}As β^- decay and 1406.7 *4* from (n,γ) E=thermal.
1702.5	3/2+	399.8[a] *6*	≤26[a]	1303.41	5/2+	
		649.5 *5*	24 *6*	1052.73	5/2+	
		812.5[a] *6*	≤46[a]	889.41	(3/2+,5/2,7/2+)	
		1087.2[a] *4*	≤43[a]	615.6?		
		1210.8 *10*	100 *57*	491.05	(5/2−)	
		1599.5 *5*	50 *6*	102.968	7/2+	
		1702.2 *10*	47 *16*	0	1/2−	
1711.25	(5/2−,1/2−,3/2)	1087.2[a] *4*	≤45[a]	624.10	5/2−	
		1243.54 *25*	100 *9*	467.75	3/2−	
		1711.0 *6*	83 *12*	0	1/2−	
1724.99	(3/2)+	491.33[b]	≤10	1232.79	1/2+	E=491.33 *15* for doublet in (n,γ) E=thermal; divided Iγ given.
		672.19[a] *25*	≤9.5[a]	1052.73	5/2+	

$^{81}_{34}$Se$_{47}$-5

$\gamma(^{81}Se)$ (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[†]	E_f	J^π_f	Comments
1724.99	(3/2)+	1232.7[a]	≤6.6[a]	491.05	(5/2−)	
		1257.14 *20*	18.8 *15*	467.75	3/2−	
		1725.4 *3*	100 *8*	0	1/2−	
1828.1	3/2+	938.7 *3*	≤10	889.41	(3/2+,5/2,7/2+)	Eγ is for doublet in (n,γ) E=thermal; divided Iγ given.
		1360.7 *10*	62 *13*	467.75	3/2−	
		1828.1 *4*	100 *13*	0	1/2−	
2029.65	1/2−,3/2−	1561.9[‡] *2*	100[‡] *11*	467.75	3/2−	
		2029.6[‡] *2*	60[‡] *5*	0	1/2−	
2173.9		1549.4 *7*	58 *10*	624.10	5/2−	
		1706.6 *7*	100 *12*	467.75	3/2−	
2179.32		1688.4[‡] *2*	100[‡]	491.05	(5/2−)	
2252.96	(5/2+)	949.65 *25*	≤156	1303.41	5/2+	E_γ,I_γ: for doublet in (n,γ) E=thermal; undivided Iγ given.
		1627.1 *10*	31 *6*	624.10	5/2−	
		1636.2 *8*	42 *8*	615.6?		
		1784.8 *8*	100 *27*	467.75	3/2−	
		1959.5 *5*	47 *8*	294.19	9/2+	
		2149.6[a] *8*	≤45[a]	102.968	7/2+	
2333.07	5/2+	1842.1 *2*	54 *9*	491.05	(5/2−)	E_γ: weighted average of 1842.1 *2* from ^{81}As β^- decay and 1841.9 *5* from (n,γ) E=thermal. I_γ: weighted average of 61 *9* from ^{81}As β^- decay and 46 *9* from (n,γ) E=thermal.
		1864.9 *4*	100 *11*	467.75	3/2−	E_γ: unweighted average of 1864.5 *2* from ^{81}As β^- decay and 1865.3 *3* from (n,γ) E=thermal. I_γ: weighted average of 100 *11* from ^{81}As β^- decay and 100 *12* from (n,γ) E=thermal.
		2332.3[‡] *2*	58[‡] *9*	0	1/2−	E_γ: reported only in β^- decay; placement implies mult=M2, see comments with the level for J^π.
2383.4	(5/2−,7/2,9/2−)	672.19[a] *25*	≤233[a]	1711.25	(5/2−,1/2−,3/2)	
		1892.0 *8*	100 *21*	491.05	(5/2−)	
2568.8	(1/2,3/2)	1162.0 *10*	51 *22*	1406.28	3/2−	γ reported in (n,γ) only.
		2570.0 *15*	100 *15*	0	1/2−	
2569.97	(1/2−,3/2−,5/2−)	2079.3[‡] *2*	18.6[‡] *27*	491.05	(5/2−)	
		2102.2[‡] *2*	100[‡] *11*	467.75	3/2−	
		2569.5[‡] *2*	47[‡] *5*	0	1/2−	E_γ: could be same as 2570γ in (n,γ) E=thermal or could be doublet deexciting both 2569 and 2570 levels.
2659.65	(5/2)−	2659.6[‡] *2*	100[‡]	0	1/2−	
2691.3	(15/2+,17/2+)	1318.2[#] *3*	100	1373.0	(13/2+)	
2769.76	(5/2−)	2145.8[‡] *2*	20[‡] *4*	624.10	5/2−	

$^{81}_{34}Se_{47}$-6

Adopted Levels, Gammas (continued)

$\gamma(^{81}Se)$ (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[†]	E_f	J^π_f
2769.76	(5/2⁻)	2301.8[‡] *2*	100[‡] *10*	467.75	3/2⁻
2773.6	5/2⁺	1367.2 *10*	66 *10*	1406.28	3/2⁻
		1884.2 *5*	100 *12*	889.41	(3/2⁺,5/2,7/2⁺)
		2149.6[a] *8*	<80[a]	624.10	5/2⁻
2832.2	(17/2⁻)	140.9[#] *2*	100	2691.3	(15/2⁺,17/2⁺)
2935.17	(5/2)⁻	756.0[‡] *2*	61[‡] *7*	2179.32	
		1882.0[‡] *2*	<3[‡]	1052.73	5/2⁺
		2832.4[‡] *2*	100[‡] *11*	102.968	7/2⁺
2953.4	1/2,3/2,5/2⁺	2485.6 *20*	100	467.75	3/2⁻
2965.08	(5/2⁻)	1661.8[‡] *2*	100[‡] *15*	1303.41	5/2⁺
		2340.8[‡] *2*	59[‡] *9*	624.10	5/2⁻
3222.7?	(5/2)⁻	2733.3[‡b] *2*	100[‡] *15*	491.05	(5/2⁻)
		3118.2[‡b] *2*	38[‡] *10*	102.968	7/2⁺
3801.1		968.9[#] *4*	100	2832.2	(17/2⁻)

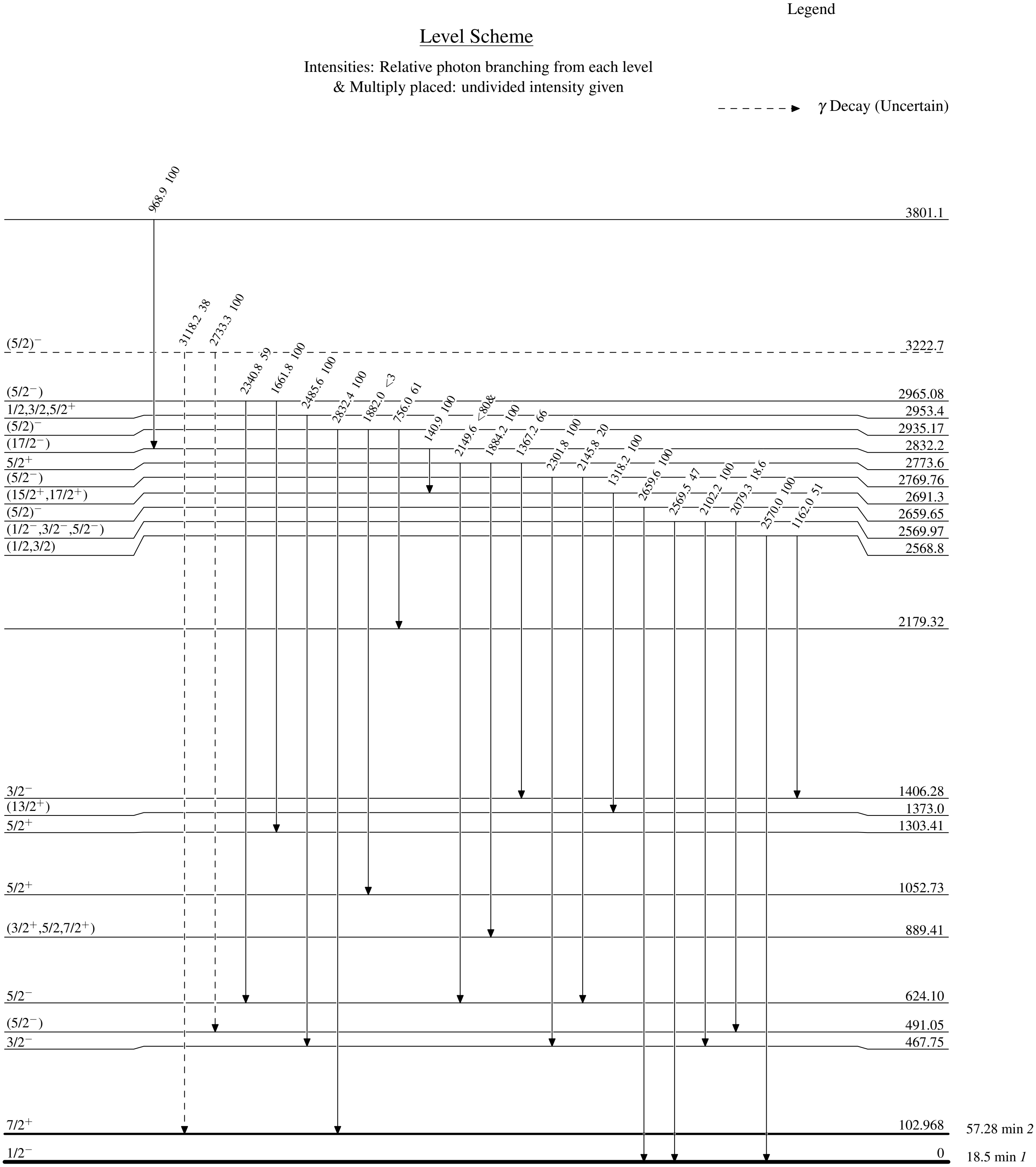
[†] From ^{80}Se(n,γ) E=thermal, except as noted.
[‡] From ^{81}As β^- decay.
[#] From (^{18}O,xγ).
[@] Assumed to be of M1 (dipole) transition (by authors (^{18}O,xγ)), based on the 1079γ crossover transition.
[&] Additional information 2.
[a] Multiply placed with undivided intensity.
[b] Placement of transition in the level scheme is uncertain.

$^{81}_{34}Se_{47}$-7

Adopted Levels, Gammas

Level Scheme

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



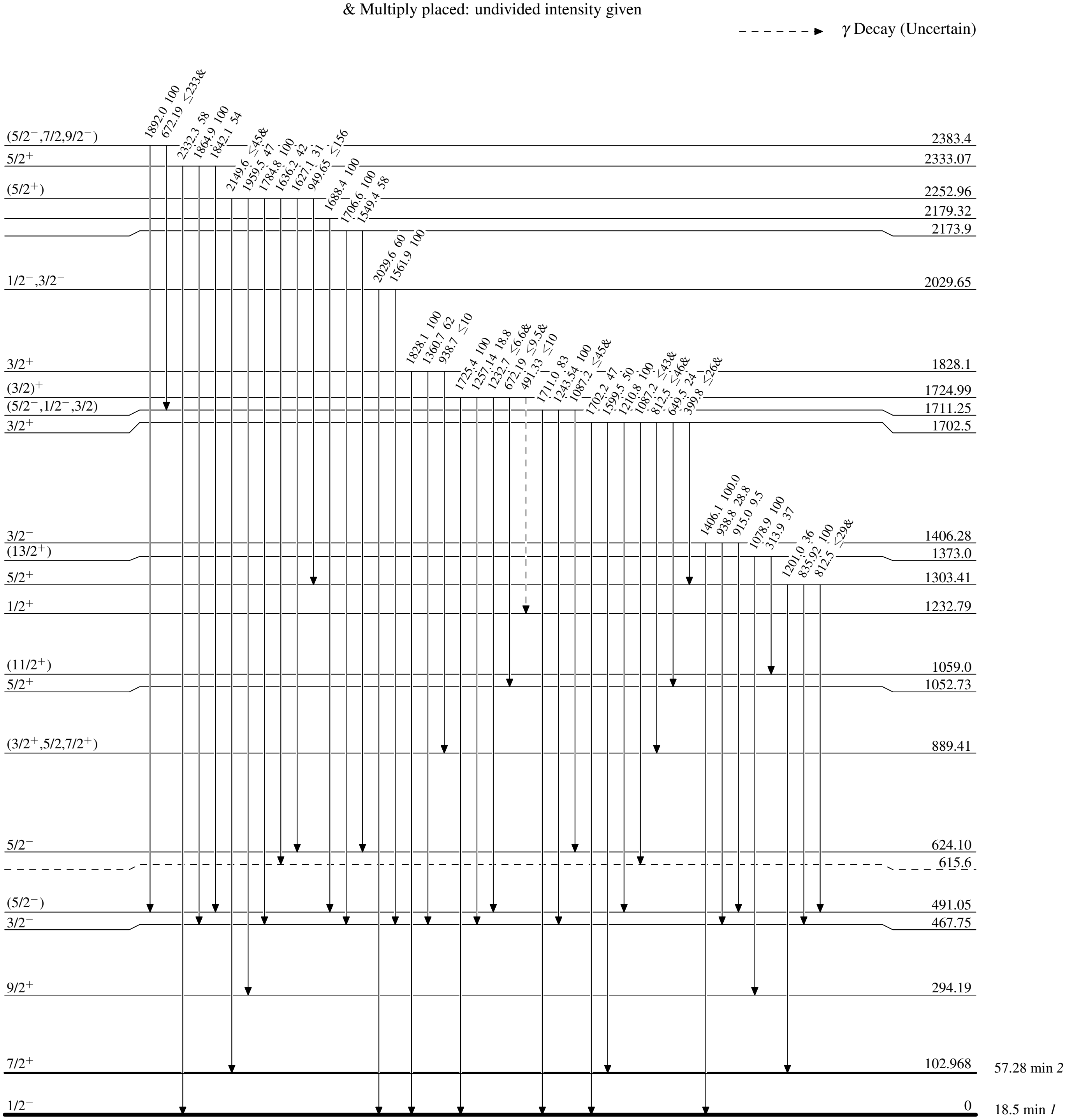
$^{81}_{34}Se_{47}$

Adopted Levels, Gammas

Legend

Level Scheme (continued)

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



$^{81}_{34}Se_{47}$

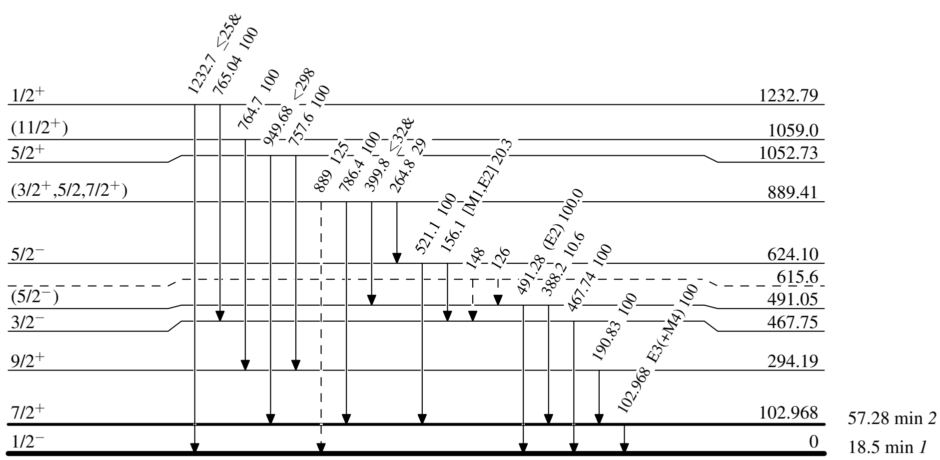
Adopted Levels, Gammas

Legend

Level Scheme (continued)

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

γ Decay (Uncertain)



$^{81}_{34}Se_{47}$

Adopted Levels, Gammas