

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 125, 201 (2015)	31-Dec-2014

$Q(\beta^-)=3673.5$; $S(n)=5818.3$; $S(p)=12526.5$; $Q(\alpha)=-8.24\times 10^3$ 4 [2012Wa38](#)
 $S(2n)=15094.3$; $S(2p)=23627.4$ ([2012Wa38](#)).

α : [Additional information 1](#).

 ^{83}Se LevelsCross Reference (XREF) Flags

- A** ^{83}As β^- decay
B $^{82}\text{Se}(\text{pol d,p}),(\text{d,p})$
C $^{82}\text{Se}(n,\gamma)$ $E=\text{thermal}$
D $^{208}\text{Pb}(^{18}\text{O},X\gamma)$

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
0.0 [#]	9/2 ⁺	22.3 min 2	ABCD	$\% \beta^- = 100$ T _{1/2} : weighted average of 22.6 min 2 (1967Ma35), 22.4 min 2 (1969To11), 22.1 min 1 (1974Kr27), and 22.4 min 2 (1974KrZG). J ^π : L(pol d,p)=4, vector-analyzing power.
228.92 7	1/2 ⁻	70.1 s 4	ABC	$\% \beta^- = 100$ T _{1/2} : weighted average of 70.4 s 3 (1969Ph03), 69.2 s 6 (1974Kr27), and 69 s 2 (1974KrZG). J ^π : L(pol d,p)=1, vector-analyzing power.
360 [‡] 20	(1/2 ⁺)		B	J ^π : L(d,p)=(0).
430 [‡] 20	3/2 ⁺ , 5/2 ⁺		BC	XREF: C(448?). J ^π : L(d,p)=2.
539.74 9	1/2 ⁺		ABC	XREF: C(546?). J ^π : L(pol d,p)=0.
582.22 6	5/2 ⁺	3.6 ns 6	ABC	XREF: C(577?). J ^π : L(pol d,p)=2, vector-analyzing power. T _{1/2} : from $\gamma\gamma(t)$ in ^{83}As β^- decay.
822 [‡] 3	3/2 ⁺		B	J ^π : L(pol d,p)=2, vector-analyzing power.
963.40 5	3/2 ⁺		AB	XREF: B(958). J ^π : L(pol d,p)=2, vector-analyzing power.
1062.99 7	(1/2 ⁺ , 3/2, 5/2 ⁻)		A	J ^π : 834 γ to 1/2 ⁻ , 268 γ from 5/2 ⁺ .
1100.47 7	3/2 ⁺		AB	J ^π : L(pol d,p)=2, vector-analyzing power.
1265.09 10	(5/2 ⁺ , 7/2 ⁺)		AB	J ^π : 165 γ to 3/2 ⁺ , 1265 γ to 9/2 ⁺ .
1296.34 [#] 9	(11/2 ⁺)		A D	J ^π : 1296 γ to 9/2 ⁺ , band assignment.
1331.63 5	5/2 ⁺		AB	J ^π : L(pol d,p)=2, vector-analyzing power.
1472.97 10	(3/2 ⁺)		ABC	XREF: C(1473?). J ^π : L(d,p)=2, 1243 γ to 1/2 ⁻ .
1526.52 8	(7/2 ⁺ , 9/2 ⁺)		A	J ^π : 230 γ to (11/2 ⁺), 944 γ to 5/2 ⁺ .
1587 [‡] 3	3/2 ⁺ , 5/2 ⁺		B	J ^π : L(d,p)=2.
1664.82 18	5/2 ⁺		AB	J ^π : L(pol d,p)=2, vector-analyzing power.
1710.48 7	(1/2 ⁺ , 3/2)		A	J ^π : 1128 γ to 5/2 ⁺ , 1170 γ to 1/2 ⁺ , 1481 γ to 1/2 ⁻ .
1807.98 [#] 16	(13/2 ⁺)		D	J ^π : (E2) 1808 γ to 9/2 ⁺ , band assignment.
1822.54 6	(5/2 ⁺ , 7/2, 9/2 ⁺)		A	J ^π : 491 γ to 5/2 ⁺ , 1822 γ to 9/2 ⁺ .
1908.0 3			AB	XREF: B(1916).
1943.41 8	(5/2 ⁺ , 7/2 ⁺)		A	J ^π : 980 γ to 3/2 ⁺ , 1944 γ to 9/2 ⁺ .
2076.92 5	(5/2 ⁺ , 7/2 ⁺)		AB	J ^π : 1113 γ to 3/2 ⁺ , 2077 γ to 9/2 ⁺ .
2120 [‡] 3	(5/2 ⁻ , 7/2 ⁻)		BC	XREF: C(2122?).

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Adopted Levels, Gammas (continued) ^{83}Se Levels (continued)

E(level) [†]	J ^π	XREF	Comments
2137.85 11	(1/2 ⁺ ,3/2)	AB	J ^π : L(d,p)=(3). J ^π : 806γ to 5/2 ⁺ , 1597γ to 1/2 ⁺ , 1909γ to 1/2 ⁻ .
2178 [‡] 3		B	
2189.86 20	(5/2 ⁺)	AB	XREF: B(2195). J ^π : L(d,p)=(2), 2191γ to 9/2 ⁺ .
2298.7 [#] 3	(15/2 ⁺)	D	J ^π : D 491γ to (13/2 ⁺), 1002γ to (11/2 ⁺), band assignment.
2314 [‡] 3	5/2 ⁺	B	J ^π : L(pol d,p)=2, vector-analyzing power.
2409 [‡] 3		BC	XREF: C(2413?).
2477.9 4	17/2	D	J ^π : D 179γ to (15/2 ⁺).
2482.35 8	5/2 ⁺	AB	J ^π : L(pol d,p)=2, vector-analyzing power.
2545.71 21	3/2 ⁺	AB	XREF: B(2536). J ^π : L(pol d,p)=2, vector-analyzing power.
2678.82 10		A	
2724.71 7	(5/2 ⁺ ,7/2 ⁺)	A	J ^π : 1761γ to 3/2 ⁺ , 2725γ to 9/2 ⁺ .
2741 [‡] 3	5/2 ⁺	B	J ^π : L(pol d,p)=2, vector-analyzing power.
2803 [‡] 15		B	
2858.10 6	5/2 ⁺	AB	J ^π : L(d,p)=2, 2858γ to 9/2 ⁺ .
2880.62 5		A	
2900 [‡] 15		B	E(level): possibly corresponds to the 2880-keV level.
2971.2 3	(3/2 ⁻)	ABC	XREF: B(2978)C(2975?). J ^π : L(d,p)=(1), 2388γ to 5/2 ⁺ . J ^π : 2018γ to 3/2 ⁺ , 2981γ to 9/2 ⁺ .
2981.10 6	(5/2 ⁺ ,7/2 ⁺)	A	
3023 [‡] 15		B	
3106 [‡] 18		B	
3167.31 7	(1/2 ⁺ ,3/2)	A	J ^π : 685γ to 5/2 ⁺ , 2629γ to 1/2 ⁺ , 2938γ to 1/2 ⁻ .
3211 [‡] 15	5/2 ⁺	B	J ^π : L(pol d,p)=2, vector-analyzing power.
3243.59 7	(5/2 ⁺ ,7/2 ⁺)	A	J ^π : 2280γ to 3/2 ⁺ , 3244γ to 9/2 ⁺ .
3282.02 8	(1/2 ⁺ ,3/2,5/2 ⁺)	A	J ^π : 2700γ to 5/2 ⁺ , 2742.5γ to 1/2 ⁺ .
3333.32 8		A	
3353 [‡] 13	5/2 ⁺	B	J ^π : L(pol d,p)=2, vector-analyzing power. E(level): possibly corresponds to the 3333-keV level.
3386.5 3		A	
3424.0 6		A	
3463.7 10	5/2 ⁺	AB	J ^π : L(pol d,p)=2, vector-analyzing power.
3558.5 10		A	
3610 [‡] 15		B	
3647 [‡] 12		B	
3690.0 5		A	
3777 [‡] 12	(1/2 ⁺)	B	J ^π : L(d,p)=(0).
3800 [‡] 15		B	
3827.8? 8	(1/2 ⁺)	AB	XREF: B(3841). J ^π : L(d,p)=(0).
3898.8 6		D	
3911.7 20		A	
4001.5 11		A	
4020? [‡] 20		B	E(level): possibly corresponds to the 4001-keV level.
4080 [‡] 20	(3/2 ⁺ ,5/2 ⁺)	B	J ^π : L(d,p)=(2).
4180 [‡] 20	3/2 ⁺ ,5/2 ⁺	B	J ^π : L(d,p)=2.
4286.3 9		D	
4290? [‡] 20		B	
4420? [‡] 20		B	

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Adopted [Levels](#), [Gammas](#) (continued)

 ^{83}Se Levels (continued)

<u>E(level)[†]</u>	<u>XREF</u>
4520 [‡] 20	B
4680 [‡] 20	B
4770 [‡] 20	B
4950 [‡] 20	B

[†] From a least-squares fit to $E\gamma$, by evaluator, except where noted.

[‡] From $^{82}\text{Se}(\text{pol d,p}),(\text{d,p})$.

[#] Band(A): Yrast sequence. Configuration suggested as a $\nu 9/2$ hole coupled to the yrast states of ^{84}Se ([2009Po04](#)).

Adopted Levels, Gammas (continued)

$\gamma(^{83}\text{Se})$								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult.	α	Comments
539.74	1/2 ⁺	311.5 3	100	228.92	1/2 ⁻			
582.22	5/2 ⁺	42 [#] 2	≤0.01	539.74	1/2 ⁺	[E2]	20 4	$\alpha(\text{K})=16\ 3$; $\alpha(\text{L})=3.9\ 10$; $\alpha(\text{M})=0.60\ 15$; $\alpha(\text{N})=0.040\ 10$ B(E2)(W.u.)≤6
		582.4 1	100 2	0.0	9/2 ⁺	[E2]	1.74×10 ⁻³	$\alpha(\text{K})=0.001550\ 22$; $\alpha(\text{L})=0.0001658\ 24$; $\alpha(\text{M})=2.58\times 10^{-5}\ 4$; $\alpha(\text{N})=2.17\times 10^{-6}\ 3$ B(E2)(W.u.)≤0.11
963.40	3/2 ⁺	380.7 8	0.04 3	582.22	5/2 ⁺			
		423.0 [#] 20	<0.06	539.74	1/2 ⁺			
		734.9 1	100 1	228.92	1/2 ⁻			
1062.99	(1/2 ⁺ ,3/2,5/2 ⁻)	480.0 [#] 20	<0.2	582.22	5/2 ⁺			
		834.1 1	100 1	228.92	1/2 ⁻			
1100.47	3/2 ⁺	135.8 30	0.6 6	963.40	3/2 ⁺			
		518.2 1	100 6	582.22	5/2 ⁺			
		560.6 1	29 3	539.74	1/2 ⁺			
		871.0 15	4 3	228.92	1/2 ⁻			
1265.09	(5/2 ⁺ ,7/2 ⁺)	165.3 12	0.8 8	1100.47	3/2 ⁺			
		682.9 1	100 7	582.22	5/2 ⁺			
		1265.1 5	7.3 24	0.0	9/2 ⁺			
1296.34	(11/2 ⁺)	1296.2 1	100	0.0	9/2 ⁺			
1331.63	5/2 ⁺	231 [#] 2	≤0.5	1100.47	3/2 ⁺			
		268 2	0.15 15	1062.99	(1/2 ⁺ ,3/2,5/2 ⁻)			
		367.5 20	0.4 4	963.40	3/2 ⁺			
		748.8 2	9.0 18	582.22	5/2 ⁺			
		791.0 10	0.29 22	539.74	1/2 ⁺			
		1331.2 1	100 3	0.0	9/2 ⁺			
1472.97	(3/2) ⁺	207 [#] 2	<14	1265.09	(5/2 ⁺ ,7/2 ⁺)			
		372.6 1	100 11	1100.47	3/2 ⁺			
		933.1 2	84 9	539.74	1/2 ⁺			
		1243.0 10	23 18	228.92	1/2 ⁻			
1526.52	(7/2 ⁺ ,9/2 ⁺)	195 [#] 1	<2.2	1331.63	5/2 ⁺			
		230.0 2	12.3 12	1296.34	(11/2 ⁺)			
		944.0 3	0.7	582.22	5/2 ⁺			
		1526.4 1	100 4	0.0	9/2 ⁺			
1664.82	5/2 ⁺	192 2	10 8	1472.97	(3/2) ⁺			
		333.2 [#] 6	<7	1331.63	5/2 ⁺			
		400 [#] 2	<6	1265.09	(5/2 ⁺ ,7/2 ⁺)			
		565 [#] 2	<3	1100.47	3/2 ⁺			
		603 [#] 2	<6	1062.99	(1/2 ⁺ ,3/2,5/2 ⁻)			
		702.1 [#] 16	<20	963.40	3/2 ⁺			
		1082.9 5	100 20	582.22	5/2 ⁺			

Adopted Levels, Gammas (continued)

$\gamma(^{83}\text{Se})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ [†]	I_γ [†]	E_f	J_f^π	Mult.	α	Comments
1664.82	5/2 ⁺	1125.0 3	39 8	539.74	1/2 ⁺			
		1664.6 3	25 6	0.0	9/2 ⁺			
1710.48	(1/2 ⁺ , 3/2)	237.0 [#]	1.0	1472.97	(3/2) ⁺			
		445.6 2	68 3	1265.09	(5/2 ⁺ , 7/2 ⁺)			
		609.7 1	5 3	1100.47	3/2 ⁺			
		648 [#] 2	<4	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)			
		1127.8 1	100 8	582.22	5/2 ⁺			
		1170.0 [#]	2.0	539.74	1/2 ⁺			
		1480.7 3	28 5	228.92	1/2 ⁻			
1807.98	(13/2 ⁺)	511.0 [‡] 3	29 [‡] 8	1296.34	(11/2 ⁺)			
		1808.3 [‡] 2	100 [‡] 10	0.0	9/2 ⁺	(E2)	3.39×10 ⁻⁴	$\alpha(\text{K})=0.0001079$ 16; $\alpha(\text{L})=1.114\times 10^{-5}$ 16; $\alpha(\text{M})=1.733\times 10^{-6}$ 25; $\alpha(\text{N})=1.484\times 10^{-7}$ 21 Mult.: Q from $\gamma\gamma(\theta)$ in $^{208}\text{Pb}(^{18}\text{O}, \text{X}\gamma)$, (E2) from assumed band structure.
1822.54	(5/2 ⁺ , 7/2, 9/2 ⁺)	157.2 13	1.1 11	1664.82	5/2 ⁺			
		296 [#] 2	<1.2	1526.52	(7/2 ⁺ , 9/2 ⁺)			
		350 [#] 2	<0.7	1472.97	(3/2) ⁺			
		491.2 1	9.9 5	1331.63	5/2 ⁺			
		526 [#] 2	<1	1296.34	(11/2 ⁺)			
		557 [#] 2	<0.24	1265.09	(5/2 ⁺ , 7/2 ⁺)			
		722 [#] 2	<0.7	1100.47	3/2 ⁺			
		759 2	<0.7	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)			
		1240.0 5	1.0 5	582.22	5/2 ⁺			
		1822.5 1	100 3	0.0	9/2 ⁺			
1908.0		807.5 3	100 30	1100.47	3/2 ⁺			
		845.0 15	40 20	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)			
		1326.8 10	60 30	582.22	5/2 ⁺			
		1367.0 [#] 11	<8	539.74	1/2 ⁺			
1943.41	(5/2 ⁺ , 7/2 ⁺)	979.8 1	100 5	963.40	3/2 ⁺			
		1944.0 5	19 10	0.0	9/2 ⁺			
2076.92	(5/2 ⁺ , 7/2 ⁺)	411.8 [#] 11	<0.55	1664.82	5/2 ⁺			
		549.8 2	0.94 11	1526.52	(7/2 ⁺ , 9/2 ⁺)			
		745.4 1	0.80 17	1331.63	5/2 ⁺			
		812.0 20	0.08 8	1265.09	(5/2 ⁺ , 7/2 ⁺)			
		1014.0 1	16.9 6	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)			
		1113.4 1	100 3	963.40	3/2 ⁺			
		2077.0 1	69.3 14	0.0	9/2 ⁺			
2137.85	(1/2 ⁺ , 3/2)	806.0 10	16 8	1331.63	5/2 ⁺			
		1036.8 [#] 20	<8	1100.47	3/2 ⁺			
		1074.0 7	75 10	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)			

Adopted Levels, Gammas (continued)

$\gamma(^{83}\text{Se})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.	α	Comments
2137.85	(1/2 ⁺ , 3/2)	1596.6 8	5 3	539.74	1/2 ⁺			
		1908.9 1	100 6	228.92	1/2 ⁻			
2189.86	(5/2 ⁺)	1607.0 15	90 60	582.22	5/2 ⁺			
		2190.6 7	100 60	0.0	9/2 ⁺			
2298.7	(15/2 ⁺)	490.8 ‡ 3	100 ‡ 15	1807.98	(13/2 ⁺)	(M1)	0.00181	$\alpha(\text{K})=0.001612$ 23; $\alpha(\text{L})=0.0001695$ 24; $\alpha(\text{M})=2.64 \times 10^{-5}$ 4; $\alpha(\text{N})=2.25 \times 10^{-6}$ 4 Mult.: D from $\gamma\gamma(\theta)$ in $^{208}\text{Pb}(^{18}\text{O}, \text{X}\gamma)$, (M1) from assumed band structure.
		1002.0 ‡ 5	6 ‡ 3	1296.34	(11/2 ⁺)			
2477.9	17/2	179.2 ‡ 3	100 ‡	2298.7	(15/2 ⁺)	D		Mult.: from $\gamma\gamma(\theta)$ in $^{208}\text{Pb}(^{18}\text{O}, \text{X}\gamma)$.
2482.35	5/2 ⁺	817.2 10	11 5	1664.82	5/2 ⁺			
		1010.0 20	4 4	1472.97	(3/2) ⁺			
		1151.1 4	23.3 19	1331.63	5/2 ⁺			
		1218.0 10	2.7 23	1265.09	(5/2 ⁺ , 7/2 ⁺)			
		1381.2 10	8 4	1100.47	3/2 ⁺			
		1419.5 2	8.9 16	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)			
		1518.4 1	100 4	963.40	3/2 ⁺			
		1900.3 5	7 3	582.22	5/2 ⁺			
2545.71	3/2 ⁺	1582.3 2	100	963.40	3/2 ⁺			
2678.82		1615.5 1	100 3	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)			
		2098.3 12	4 4	582.22	5/2 ⁺			
		2141.7 3	13 3	539.74	1/2 ⁺			
		2449.9 2	43 4	228.92	1/2 ⁻			
2724.71	(5/2 ⁺ , 7/2 ⁺)	1623.6 4	55 5	1100.47	3/2 ⁺			
		1761.4 1	100 5	963.40	3/2 ⁺			
		2142.5 7	10 5	582.22	5/2 ⁺			
		2724.6 1	25 8	0.0	9/2 ⁺			
2858.10	5/2 ⁺	781.1 1	19.0 14	2076.92	(5/2 ⁺ , 7/2 ⁺)			
		914.5 1	3.1 3	1943.41	(5/2 ⁺ , 7/2 ⁺)			
		1331.1 3	8.3 6	1526.52	(7/2 ⁺ , 9/2 ⁺)			
		1795.3 1	11.8 6	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)			
		1894.8 2	72.4 18	963.40	3/2 ⁺			
		2858.1 1	100 2	0.0	9/2 ⁺			
2880.62		397.8 1	1.9 3	2482.35	5/2 ⁺			
		690.8 2	2.1 3	2189.86	(5/2 ⁺)			
		803.8 1	72.1 16	2076.92	(5/2 ⁺ , 7/2 ⁺)			
		1058.2 1	59.7 16	1822.54	(5/2 ⁺ , 7/2, 9/2 ⁺)			
		1169.3 1	11.1 7	1710.48	(1/2 ⁺ , 3/2)			
		1408.0 2	<3	1472.97	(3/2) ⁺			
		1548.8 1	24.0 8	1331.63	5/2 ⁺			
		1780.2 1	12.6 5	1100.47	3/2 ⁺			
		1818.0 2	4.7 8	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)			

Adopted Levels, Gammas (continued)

$\gamma(^{83}\text{Se})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π
2880.62		1917.3 1	100 3	963.40	3/2 ⁺
		2299.2 1	6.9 4	582.22	5/2 ⁺
2971.2	(3/2 ⁻)	1641.0 4	7 7	1331.63	5/2 ⁺
		2388.3 9	79 17	582.22	5/2 ⁺
		2429.5 5	100 17	539.74	1/2 ⁺
2981.10	(5/2 ⁺ , 7/2 ⁺)	904.0 1	5.5 4	2076.92	(5/2 ⁺ , 7/2 ⁺)
		1036.8 [#] 20	<30	1943.41	(5/2 ⁺ , 7/2 ⁺)
		1158.7 1	25 4	1822.54	(5/2 ⁺ , 7/2, 9/2 ⁺)
		1454.7 3	100 6	1526.52	(7/2 ⁺ , 9/2 ⁺)
		1649.2 1	41.5 13	1331.63	5/2 ⁺
		1715.6 5	1.5 6	1265.09	(5/2 ⁺ , 7/2 ⁺)
		1919.3 5	13 3	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)
		2017.9 1	24.0 19	963.40	3/2 ⁺
		2981.2 5	29.1 11	0.0	9/2 ⁺
3167.31	(1/2 ⁺ , 3/2)	685.0 20	1.2 4	2482.35	5/2 ⁺
		1258.0 21	0.9 3	1908.0	
		2104.2 2	1.7 2	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)
		2204.2 1	100 2	963.40	3/2 ⁺
		2585.2 1	0.80 14	582.22	5/2 ⁺
		2629.0 15	0.14 9	539.74	1/2 ⁺
		2937.9 1	3.1 5	228.92	1/2 ⁻
3243.59	(5/2 ⁺ , 7/2 ⁺)	760.6 15	4.0 17	2482.35	5/2 ⁺
		1420.0 10	6.6 11	1822.54	(5/2 ⁺ , 7/2, 9/2 ⁺)
		1912.0 10	1.4 11	1331.63	5/2 ⁺
		2180.3 19	0.9 9	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)
		2279.9 1	16.0 14	963.40	3/2 ⁺
		3243.8 1	100 3	0.0	9/2 ⁺
3282.02	(1/2 ⁺ , 3/2, 5/2 ⁺)	1143.6 3	9.1 24	2137.85	(1/2 ⁺ , 3/2)
		2218.7 2	57 6	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)
		2318.8 1	100 2	963.40	3/2 ⁺
		2699.6 1	20.6 12	582.22	5/2 ⁺
		2742.5 2	17.5 20	539.74	1/2 ⁺
3333.32		1196.0 6	12 3	2137.85	(1/2 ⁺ , 3/2)
		1257.0 2	20 4	2076.92	(5/2 ⁺ , 7/2 ⁺)
		1860.0 3	15 9	1472.97	(3/2) ⁺
		2001.0 1	11 9	1331.63	5/2 ⁺
		2270.8 5	13 4	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)
		2370.4 1	100 5	963.40	3/2 ⁺
3386.5		2423.1 3	100	963.40	3/2 ⁺
3424.0		2092.0 10	56 12	1331.63	5/2 ⁺
		2360.0 10	28 16	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)
		2461.9 10	100 16	963.40	3/2 ⁺
3463.7	5/2 ⁺	2881.4 10	100	582.22	5/2 ⁺

Adopted Levels, Gammas (continued)

$\gamma(^{83}\text{Se})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π
3558.5		2976.2	100	582.22	5/2 ⁺	3898.8		1421.0 ‡	5 100 ‡	2477.9	17/2
3690.0		2626.7 5	16 4	1062.99	(1/2 ⁺ , 3/2, 5/2 ⁻)	3911.7		2580.0 20	100	1331.63	5/2 ⁺
		2729.0 15	100 10	963.40	3/2 ⁺	4001.5		3038.0 11	100	963.40	3/2 ⁺
3827.8?	(1/2 ⁺)	2865.0 $^\#$	12 $\approx$ 100	963.40	3/2 ⁺	4286.3		388 ‡	1 100 ‡	3898.8	
		3245.0 10	$\approx$ 70	582.22	5/2 ⁺			1808 ‡	1 100 ‡	2477.9	17/2

† From ^{83}As β^- decay, except where noted.
 ‡ From $^{208}\text{Pb}(^{18}\text{O}, \text{X}\gamma)$.
 $^\#$ Placement of transition in the level scheme is uncertain.

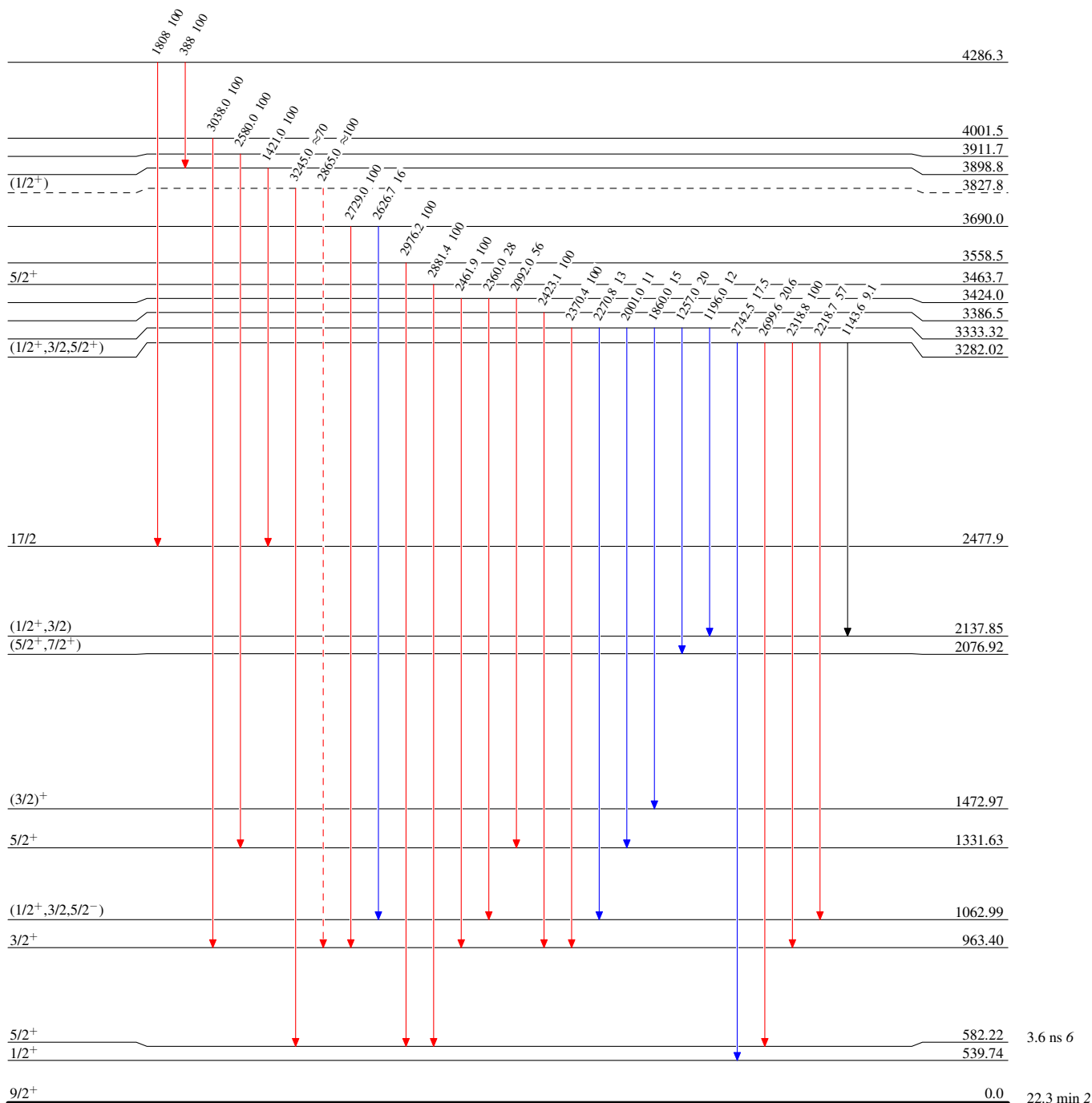
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Type not specified

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



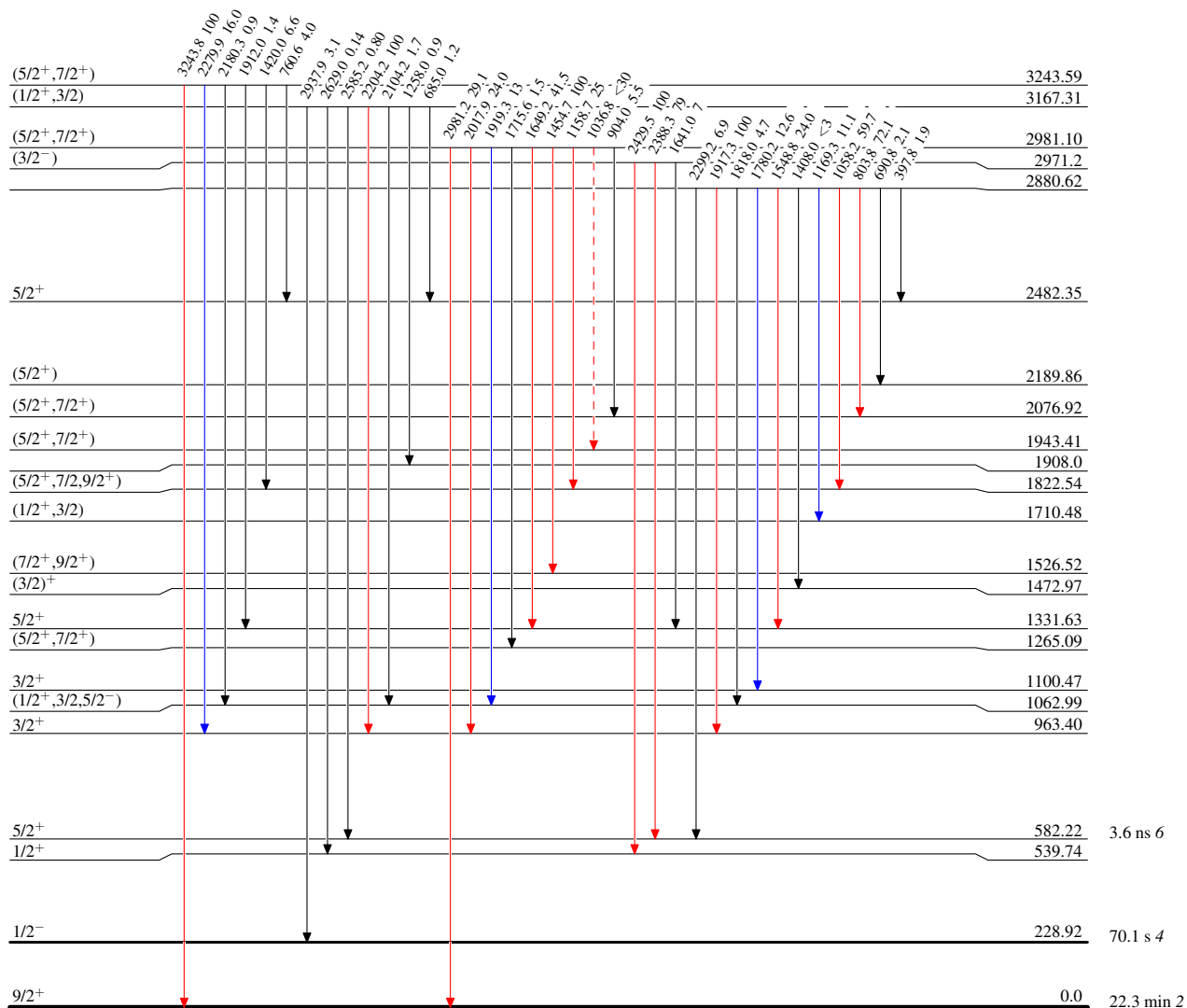
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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

 $^{83}_{34}\text{Se}_{49}$

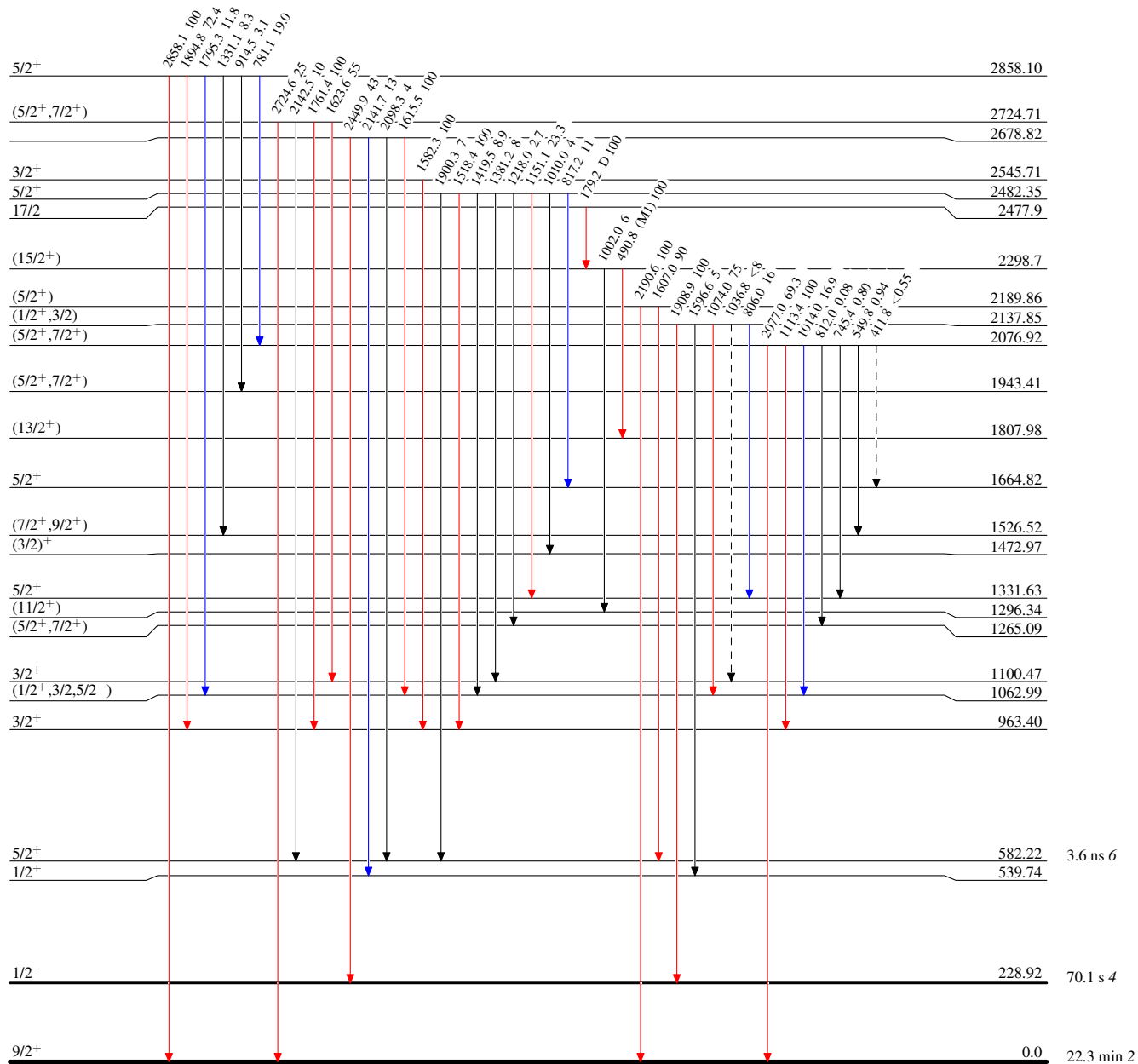
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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



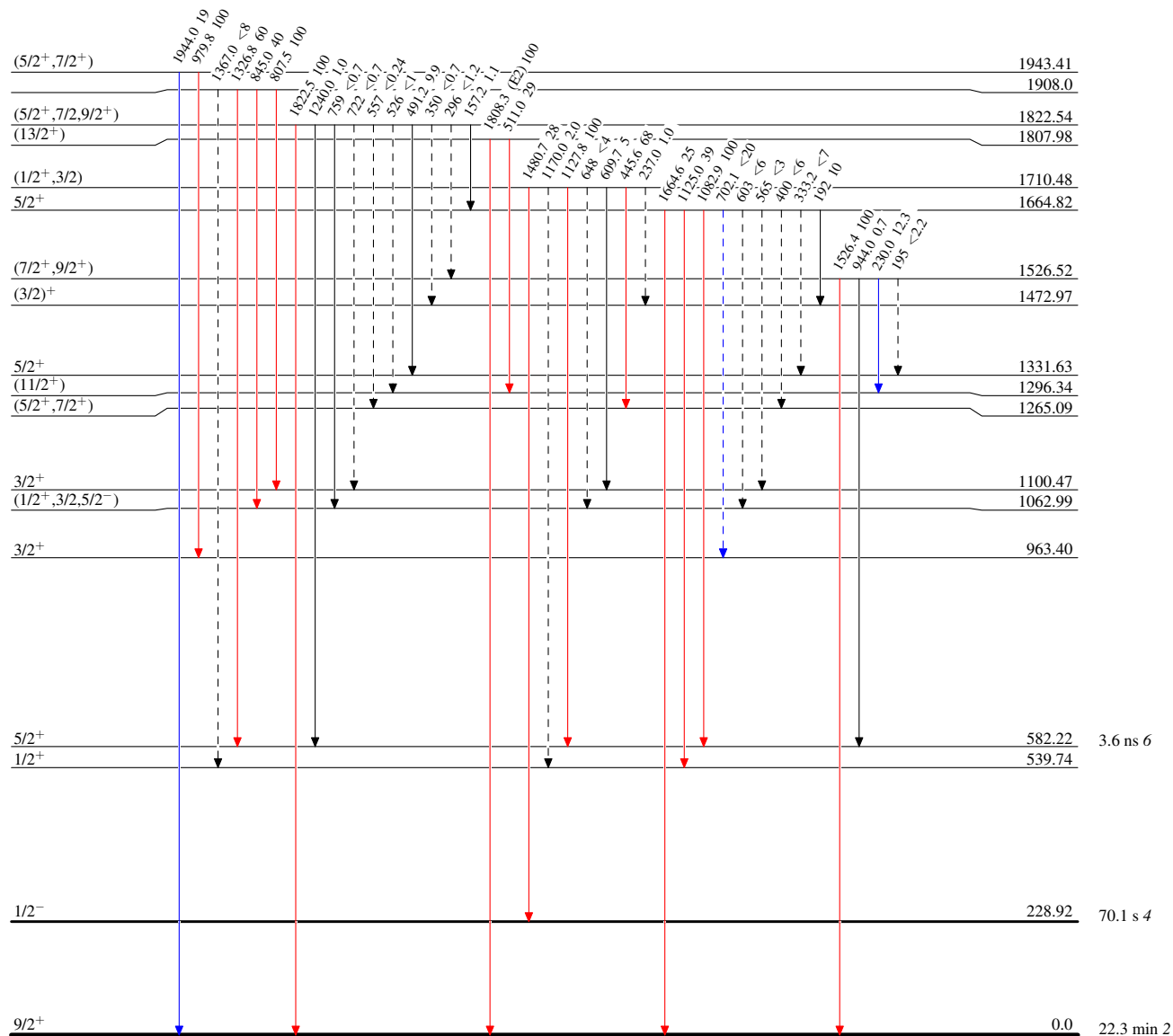
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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



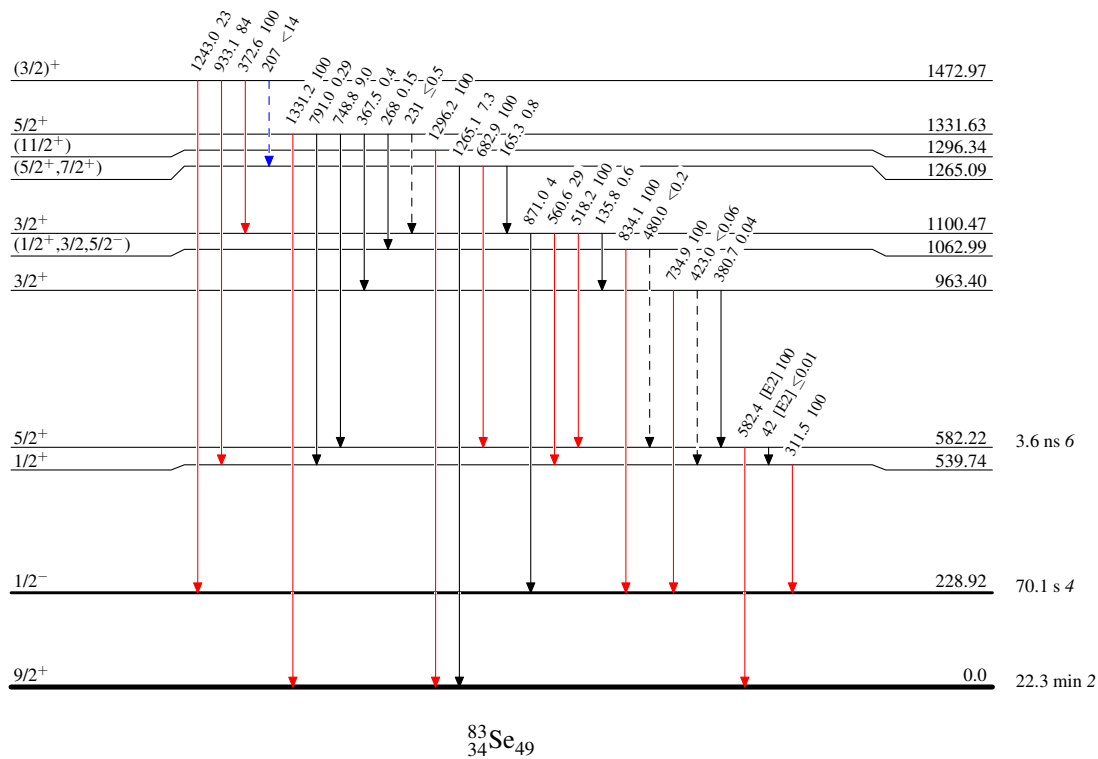
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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



Adopted Levels, Gammas

