^{55}Mn(n,γ), (pol n,γ) E=th 1980De20,1975Co05,1974Bo19

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huo Junde, Huo Su, Yang Dong	NDS 112, 1513 (2011)	29-Oct-2009

1980De20: E=thermal, polarized n and target; measured γ(θ), γ-CP with Ge(Li).
1975Co05: E=thermal; measured Eγ, Iγ with Ge(Li).
1974Bo19: E=resonance; measured primary γ's, deduced E(level).
1971Va01: E=thermal; measured Iγ, Eγ with Ge(Li).
Measured S(n)=7270.6 keV *5* (1980Is02) is consistent with recommended 7270.60 keV *10* (1985Wa02).
For thermal neutron cross sections and neutron resonance parameters, see 1981MuZQ and 1985Ma29.
For polarized beam and circular polarization(γ), see 1969Ko05 and 1972St06.
For γ(θ) using oriented target see 1970Me14.
Others: 1971Bo45, 1971Va01, 1969Al11, 1970Or05, 1966Hu08, 1967Do08, 1961Es02, 1964Ca21, 1961Du05, and 1960Da04.

^{56}Mn Levels

E(level)†	Jπ‡	$T_{1/2}$&	Comments
0.0	3+#		
26.516 *3*	2+@	8.7 ns *5*	Jπ: J=2 from 1980De20. $T_{1/2}$: others: 10.7 ns *+20−30* (1960Da04), 11.4 ns *+20−30* (1961Du05).
110.428 *3*	1+@	5.08 ns *15*	$T_{1/2}$: others: 4.9 ns *6* (1960Da04), 5.1 ns *5* (1961Du05).
212.004 *5*	4+@	≤0.5[a] ns	
215.057 *3*	1+,2+@		
335.509 *6*	5+		Jπ: other: (4,5) (1971Va01).
340.957 *6*	3#		Jπ: other: 2+,3+ (1969Ko05, 1970Me14 and 1972St06).
454.305 *7*	3+		Jπ: other: 4,3,2 (1969Ko05, 1970Me14 and 1972St06).
486.251 *8*	3#		Jπ: other: 2+,3+ (1969Ko05, 1970Me14 and 1972St06).
716.121 *10*	(4)+		Jπ: other: (2,3,4) (1971Va01).
840.38 *3*	(3)+		Jπ: other: (3,4) (1971Va01).
1166.54 *21*	1+@		
1239.85 *21*	1+,2+,3+		
1293.81 *21*	(2)+		
1349.95 *21*	2+,3+@		
1509.55 *21*	2+,3+@		Jπ: J=2,3 from 1980De20.
1692.9 *10*			
1727.46 *21*	+		
1744.3 *10*	2+#		
1833.67 *21*	+		
1865.97 *21*	(2+)		
1980.2 *8*			
2016.39 *15*	2+@		Jπ: other: 2,3 (1980De20).
2071.39 *15*	2,3#		
2089.38 *15*	3−#		
2158.97 *15*			
2202.73 *15*	1#		
2235.14 *21*	2,(3)#		
2255.24 *15*	3+#		Jπ: other: 2+ (1969Ko05,1970Me14,1972St06).
2300.72 *21*	+		
2321.15 *10*	2#		
2335.32 *21*	+		
2362.62 *21*	2,3#		

Continued on next page (footnotes at end of table)

^{55}Mn(n,γ), (pol n,γ) E=th 1980De20,1975Co05,1974Bo19 (continued)

^{56}Mn Levels (continued)

E(level)†	Jπ‡	Comments
2395.89 *15*	2,3#	
2432 *1*		
2441.27 *15*	2+@	
2518.8 *8*	(1+)	
2545.65 *20*	2,(3)#	
2580.54 *21*		
2626.75 *21*	2−,3−	Jπ: other: 2,3,(1) (1980De20).
2652.0 *8*	(2−,3−)	
2681.85 *21*	+	
2703.87 *15*	2,3#	
2719.96 *21*	2,(3)#	
2797.5 *8*	1+,2+,3+	
2824.56 *21*	2+,3+#	
2855.17 *21*	+	
2872.17 *15*	2−,3−	
2889.57 *21*	1+	
2922.57 *21*	+	
2951.07 *21*	+	
3002.88 *12*	2−,3−	
3018.88 *21*	+	
3047.34 *15*	1+	
3071.38 *21*	+	
3159.94 *15*		
3166.39 *15*		
3219.04 *20*	−	
3240.80 *21*	+	
3263.82 *19*	2−,3−	
3291.20 *21*		
3293.66 *15*	2−,3−	
3315.6 *8*		
3373.6 *8*	+	
3386.6 *3*	1+	
3397.61? *21*		
3412.81 *21*	+	
3450.21 *21*		
3455.61 *21*	(2−,3−)	Jπ: other: 1,2,3,(4) (1980De20).
3486.23 *15*	(−)	
3497.82 *21*	1+	
3518.32 *21*		
3524.82 *20*	+	
3628.33 *21*	2,3,(1)#	
3690.03 *21*	(1+)	Jπ: other: 1,2,3 (1980De20).
3696.77 *12*	+	
3721.43 *21*	1+,2+,3+	
3771.74 *21*	2,3,4#	
3839.84 *21*	2−,3−	
3861.54 *21*	2−,3−	
3901.8 *8*		
3927.25 *20*	(+)	
3961.9 *8*		
3982.45 *21*	2−,3−	
3998.56 *15*		
3999.5 *3*		
4001.3 *8*		

Continued on next page (footnotes at end of table)

^{55}Mn(n,γ), (pol n,γ) E=th 1980De20,1975Co05,1974Bo19 (continued)

^{56}Mn Levels (continued)

E(level)[†]	J$^\pi$[‡]	Comments
4098.16 *21*		
4132.1 *8*		
4174.1 *8*		
4195.1 *8*		
4300.7 *8*	2^-,3^-	
4417.1 *8*	$(^+)$	
4470.0 *8*	2^-,3^-	
4739.6 *8*	$^+$	
4768.59 *20*	$^+$	
4799.33 *20*	$^+$	
4816.9 *8*		
4818.4 *3*		
4820.6 *8*		
4841.66 *15*	2^-,3^-	
4898.60 *21*		
4928.10 *21*	$^+$	
5129.75 *20*	$^-$	
5298.6 *8*	$^-$	
5313.9 *8*	$^-$	
5485.8 *8*	$^-$	
5564.2 *8*		
5604.2 *8*		
5652.1 *8*	$(2^-,3^-)$	
5664.3 *8*		
5712.0 *8*		
5714.81 *20*	$^+$	
5734.2 *8*	$(^+)$	
5795.1 *8*	$(^+)$	
5956.8 *8*	$(^-)$	
(7270.75 *5*)	2^-,3^-	J$^\pi$: from s-wave capture on $J^\pi=5/2^-$ target.

[†] From Eγ and level scheme by using least-squares adjustment procedure.
[‡] From Adopted Levels, except as noted.
[#] From polarized neutrons and polarized target, and γ-CP and $\gamma(\theta)$ measurement. J values from 1980De20, except as noted.
[@] J from circular polarization and $\gamma(\theta$,t), 1969Ko05, 1970Me14, 1972St06. π from L in ^{55}Mn(d,p).
[&] From $\gamma\gamma$(t) measurement (1971Ca32), except as noted.
[a] From $\gamma\gamma$(t) measurement (1960Da04).

$\gamma(^{56}$Mn)

Primary gammas and unplaced gammas are from 1975Co05, secondary gammas from 1975Co05 (Eγ>2000 keV) and 1971Va01 (Eγ<2000 keV), except as noted.
See 1974Bo19 for average resonance capture.

E$_\gamma$[&]	I$_\gamma$[#a]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.[@]	Comments
26.6043 *4*	18	26.516	2^+	0.0	3^+	M1	B(M1)(W.u.)=0.134 *8* E$_\gamma$: from 1971Va01. α: α(exp)=2.0 *2* from $\gamma\gamma$-coin and intensity balance (1961Es02); α(exp)=1.4 *7* from intensity balance (1971Va01).

Continued on next page (footnotes at end of table)

^{55}Mn(n,γ), (pol n,γ) E=th 1980De20,1975Co05,1974Bo19 (continued)

γ(^{56}Mn) (continued)

E_γ[&]	I_γ[#a]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	Comments
[x]29.830[‡] *12*	0.20						
83.8990 *15*	10.9	110.428	1^+	26.516	2^+	M1	B(M1)(W.u.)=0.00732 *22* α: α(exp)=0.4 *2* from $\gamma\gamma$-coin and intensity balance (1961Es02).
104.6234 *20*	8.4	215.057	1^+,2^+	110.428	1^+	D+Q	δ: −1.2 *8* if J=1; −1.5 *16* if J=2 (1970Me14).
110.505 *4*	0.036	110.428	1^+	0.0	3^+		
[x]112.508[‡] *13*	0.011						
113.348 *4*	0.049	454.305	3^+	340.957	3		
118.803 *4*	0.24	454.305	3^+	335.509	5^+		
123.502 *4*	0.33	335.509	5^+	212.004	4^+		
125.90 *3*	0.033	340.957	3	215.057	1^+,2^+		
128.961 *4*	0.077	340.957	3	212.004	4^+		
145.320 *20*	0.016	486.251	3	340.957	3		
188.524 *6*	1.8	215.057	1^+,2^+	26.516	2^+	D+Q	δ: −0.5 *+5−45* if J=1; +3.0 *+170−34* if J=2 (1970Me14).
212.017 *6*	10.6	212.004	4^+	0.0	3^+	D+Q	δ: +0.03 *3* or −6 *1* (1970Me14).
215.134 *7*	0.88	215.057	1^+,2^+	0.0	3^+		
229.867 *7*	0.38	716.121	$(4)^+$	486.251	3		δ: −0.04 *+14−26* or −4.0 *+25−20* (1970Me14).
[x]231.596[‡] *12*	0.049						
242.36 *10*	0.07	454.305	3^+	212.004	4^+		
271.175 *9*	5.7	486.251	3	215.057	1^+,2^+		δ: +0.03 *5* or −5 *1* if J(215)=2 (1970Me14).
274.28 *3*	0.46	486.251	3	212.004	4^+		
314.395 *10*	9.4	340.957	3	26.516	2^+	D+Q	δ: +0.02 *6* or −5 *1* (1970Me14).
[x]323.13[‡] *20*	0.04						
335.540 *15*	0.85	335.509	5^+	0.0	3^+		
340.990 *25*	0.59	340.957	3	0.0	3^+		
354.11 *3*	0.62	840.38	$(3)^+$	486.251	3		
375.180 *20*	0.83	716.121	$(4)^+$	340.957	3		
454.30 *6*	2.9	454.305	3^+	0.0	3^+	D+Q	δ: −0.17 *+12−3* or +2.0 *5* for J=3, +0.30 *5* or +13 *6* for J=4 (1970Me14).
459.71 *5*	1.6	486.251	3	26.516	2^+	D+Q	δ: −0.17 *13* or −3.0 *15* (1970Me14).
486.47 *8*	0.21	486.251	3	0.0	3^+		
499.66 *9*	0.25	840.38	$(3)^+$	340.957	3		
504.72 *8*	0.61	840.38	$(3)^+$	335.509	5^+		
[x]516.4[‡] *3*	0.10						
[x]523.40[‡] *20*	0.20						
[x]541.4[‡] *3*	0.40						
[x]558.7[†] *10*	0.52						
[x]646.4[†] *10*	0.34						
716.43 *14*	0.74	716.121	$(4)^+$	0.0	3^+		
[x]1140.4[†] *10*	0.66						
[x]1401.7[†] *10*	0.88						
[x]1705.4[†] *10*	1.39						
[x]1747.0[†] *10*	3.31						
[x]1876.2[†] *10*	0.94						
[x]1915.2[†] *10*	2.50						
[x]1987.6[†] *10*	2.74						
2016.5 *2*	3.36	2016.39	2^+	0.0	3^+		
[x]2023.9 *2*	1.11						
2044.7 *2*	2.10	2071.39	2,3	26.516	2^+		
2063.2 *2*	1.41	2089.38	3^-	26.516	2^+		
[x]2090.4 *2*	0.94						
[x]2122.5 *2*	0.52						

Continued on next page (footnotes at end of table)

^{55}Mn(n,γ), (pol n,γ) E=th 1980De20,1975Co05,1974Bo19 (continued)

γ(^{56}Mn) (continued)

E_γ[&]	I_γ[#a]	E_i(level)	J_i^π	E_f	J_f^π
x2138.5 2	0.38				
x2147.3 2	0.50				
2159.1 2	0.25	2158.97		0.0	3+
2176.6 2	1.08	2202.73	1	26.516	2+
x2183.1 2	0.48				
x2191.9 2	0.35				
x2205.3 2	0.93				
2211.3 2	1.62	2321.15	2	110.428	1+
x2241.8 2	0.22				
2254.8 2	0.21	2255.24	3+	0.0	3+
x2261.0 2	0.33				
x2286.2 2	0.21				
2294.8 2	1.16	2321.15	2	26.516	2+
x2310.0 2	0.20				
2320.2 2	0.30	2321.15	2	0.0	3+
2331.2 2	1.92	2441.27	2+	110.428	1+
x2338.4 2	0.70				
2342.6 2	0.40	(7270.75)	2−,3−	4928.10	+
x2368.4 2	0.49				
2372.1 2	0.29	(7270.75)	2−,3−	4898.60	
2396.4 2	0.29	2395.89	2,3	0.0	3+
x2405.7 2	0.35				
2428.6 2	0.40	(7270.75)	2−,3−	4841.66	2−,3−
x2437.8 2	0.44				
x2443.1 2	0.21				
x2451.9 2	0.22				
2471.3 2	0.33	(7270.75)	2−,3−	4799.33	+
2508.5 2	0.34	(7270.75)	2−,3−		
x2515.0 2	0.33				
x2534.6 2	0.24				
2545.7 8	0.055	2545.65	2,(3)	0.0	3+
x2557.9 2	0.18				
x2561.4 2	0.19				
x2582.0 2	0.30				
x2594.5 2	0.50				
x2598.6 2	0.37				
x2610.6 2	0.43				
x2622.7 2	0.58				
x2644.1 8	0.085				
2677.7 2	0.79	2703.87	2,3	26.516	2+
x2696.4 2	0.31				
x2708.4 2	0.32				
x2721.6 8	0.090				
x2729.4 8	0.10				
x2740.3 8	0.070				
x2764.1 2	0.11				
x2769.2 8	0.090				
x2779.5 2	0.18				
2790.0 8	0.065	3002.88	2−,3−	212.004	4+
x2802.2 8	0.10				
x2806.6 2	0.12				
x2817.4 2	0.12				
x2832.9 2	0.39				
x2842.1 8	0.080				
x2857.9 2	0.25				
x2864.4 2	0.41				
2872.4 2	0.17	2872.17	2−,3−	0.0	3+
x2885.6 8	0.050				
x2893.7 8	0.10				
x2898.7 2	0.18				
2922.8 2	0.34	3263.82	2−,3−	340.957	3
x2926.9 2	0.41				
x2937.6 8	0.067				
2953.8 2	0.28	3166.39		212.004	4+
x2970.2 2	0.51				
2976.4 2	0.25	3002.88	2−,3−	26.516	2+
x2991.4 2	0.14				
3003.4 2	0.64	3002.88	2−,3−	0.0	3+
x3021.7 2	0.29				
x3034.1 2	0.14				
3047.5 2	0.37	3047.34	1+	0.0	3+
x3058.2 2	0.13				
x3061.9 2	0.15				
x3072.7 8	0.035				
x3076.6 8	0.035				
x3089.3 8	0.030				
x3098.1 8	0.030				
x3116.1 2	0.22				
x3124.7 2	0.19				
x3135.6 2	0.25				
3144.4 2	0.25	3486.23	(−)	340.957	3
3159.6 2	0.11	3159.94		0.0	3+
3172.5 2	0.17	(7270.75)	2−,3−	4098.16	
3191.5 8	0.075	3219.04	−	26.516	2+
x3195.6 2	0.11				
x3203.9 2	0.33				
x3213.7 8	0.061				
x3222.4 8	0.015				
x3231.6 8	0.030				
3236.8 8	0.045	3263.82	2−,3−	26.516	2+
x3242.5 8	0.090				
x3247.3 8	0.090				
x3259.9 2	0.18				
3266.8 2	0.50	3293.66	2−,3−	26.516	2+
3271.8 2	0.32	(7270.75)	2−,3−	3998.56	
3288.2 2	0.12	(7270.75)	2−,3−	3982.45	2−,3−
3293.8 2	0.12	3293.66	2−,3−	0.0	3+
x3301.4 2	0.17				
x3316.9 8	0.085				
x3337.4 2	0.11				
x3346.9 2	0.54				
x3363.5 8	0.085				
x3387.8 2	0.20				
x3399.6 2	0.39				
3409.1 2	3.17	(7270.75)	2−,3−	3861.54	2−,3−
x3418.1 2	0.19				
3430.8 2	0.16	(7270.75)	2−,3−	3839.84	2−,3−
x3437.4 8	0.080				
x3451.6 8	0.040				
x3458.9 8	0.040				
x3479.3 8	0.10				
x3484.4 2	0.11				

Continued on next page (footnotes at end of table)

^{55}Mn(n,γ), (pol n,γ) E=th 1980De20,1975Co05,1974Bo19 (continued)

γ(^{56}Mn) (continued)

E_γ &	I_γ #a	E_i(level)	J_i^π	E_f	J_f^π
3498.9 2	0.54	(7270.75)	2$^-$,3$^-$	3771.74	2,3,4
3524.7 2	0.15	3524.82	$^+$	0.0	3$^+$
x3527.6 2	0.20				
3549.2 2	0.29	(7270.75)	2$^-$,3$^-$	3721.43	1$^+$,2$^+$,3$^+$
x3553.9 2	0.27				
x3559.4 8	0.10				
3573.9 2	0.24	(7270.75)	2$^-$,3$^-$	3696.77	$^+$
3580.6 2	0.44	(7270.75)	2$^-$,3$^-$	3690.03	(1$^+$)
x3588.5 8	0.075				
x3601.5 8	0.095				
x3605.6 8	0.060				
x3626.8 2	0.68				
3642.3 2	0.61	(7270.75)	2$^-$,3$^-$	3628.33	2,3,(1)
x3658.7 8	0.035				
3669.8 2	0.15	3696.77	$^+$	26.516	2$^+$
3697.0 2	0.12	3696.77	$^+$	0.0	3$^+$
x3716.2 8	0.035				
x3723.2 8	0.035				
x3738.4 8	0.025				
3752.3 2	0.43	(7270.75)	2$^-$,3$^-$	3518.32	
3772.8 2	0.12	(7270.75)	2$^-$,3$^-$	3497.82	1$^+$
3783.6 2	0.32	(7270.75)	2$^-$,3$^-$	3486.23	($^-$)
x3798.7 8	0.045				
3815.0 2	1.07	(7270.75)	2$^-$,3$^-$	3455.61	(2$^-$,3$^-$)
3820.4 2	0.58	(7270.75)	2$^-$,3$^-$	3450.21	
x3837.0 8	0.080				
x3846.0 2	0.13				
3857.8 2	0.60	(7270.75)	2$^-$,3$^-$	3412.81	$^+$
3873.0 2	0.13	(7270.75)	2$^-$,3$^-$	3397.61?	
x3883.7 2	0.15				
3897.0 8	0.095	(7270.75)	2$^-$,3$^-$	3373.6	$^+$
3901.7 8	0.025	3901.8		0.0	3$^+$
3927.1 2	0.44	3927.25	($^+$)	0.0	3$^+$
3955.0 8	0.060	(7270.75)	2$^-$,3$^-$	3315.6	
3961.7 8	0.060	3961.9		0.0	3$^+$
3971.6 2	0.23	3998.56		26.516	2$^+$
3979.4 2	0.38	(7270.75)	2$^-$,3$^-$	3291.20	
4001.1 8	0.060	4001.3		0.0	3$^+$
4007.2 8	0.050	(7270.75)	2$^-$,3$^-$	3263.82	2$^-$,3$^-$
x4024.5 8	0.10				
4029.8 2	0.17	(7270.75)	2$^-$,3$^-$	3240.80	$^+$
x4035.8 2	0.16				
x4048.1 8	0.090				
4051.5 2	0.13	(7270.75)	2$^-$,3$^-$	3219.04	$^-$
x4068.3 8	0.015				
4076.0 8	0.015	4417.1	($^+$)	340.957	3
4084.5 8	0.040	4195.1		110.428	1$^+$
4088.5 8	0.035	4300.7	2$^-$,3$^-$	212.004	4$^+$
4103.7 2	0.39	(7270.75)	2$^-$,3$^-$	3166.39	
4110.4 2	0.35	(7270.75)	2$^-$,3$^-$	3159.94	
x4127.7 8	0.050				
4131.9 8	0.065	4132.1		0.0	3$^+$
4173.9 8	0.035	4174.1		0.0	3$^+$
x4187.2 8	0.050				
x4191.6 8	0.035				
4199.2 2	0.17	(7270.75)	2$^-$,3$^-$	3071.38	$^+$

Continued on next page (footnotes at end of table)

^{55}Mn(n,γ), (pol n,γ) E=th 1980De20,1975Co05,1974Bo19 (continued)

γ(^{56}Mn) (continued)

E_γ &	I_γ #a	E_i(level)	J_i^π	E_f	J_f^π
4223.5 *2*	0.73	(7270.75)	$2^-,3^-$	3047.34	1^+
x4230.6 *2*	0.36				
4251.7 *2*	0.21	(7270.75)	$2^-,3^-$	3018.88	$^+$
4268.5 *2*	0.69	(7270.75)	$2^-,3^-$	3002.88	$2^-,3^-$
x4298.5 *8*	0.035				
4319.5 *2*	0.11	(7270.75)	$2^-,3^-$	2951.07	$^+$
x4324.1 *2*	0.14				
x4330.4 *8*	0.060				
4348.0 *2*	0.31	(7270.75)	$2^-,3^-$	2922.57	$^+$
x4364.5 *8*	0.010				
4381.0 *2*	0.54	(7270.75)	$2^-,3^-$	2889.57	1^+
4398.7 *2*	0.14	(7270.75)	$2^-,3^-$	2872.17	$2^-,3^-$
4415.4 *2*	0.20	(7270.75)	$2^-,3^-$	2855.17	$^+$
x4423.7 *8*	0.055				
4446.0 *2*	0.79	(7270.75)	$2^-,3^-$	2824.56	$2^+,3^+$
4469.8 *8*	0.055	4470.0	$2^-,3^-$	0.0	3^+
4473.1 *8*	0.10	(7270.75)	$2^-,3^-$	2797.5	$1^+,2^+,3^+$
4550.6 *2*	0.68	(7270.75)	$2^-,3^-$	2719.96	2,(3)
4567.2 *2*	1.94	(7270.75)	$2^-,3^-$	2703.87	2,3
4588.7 *2*	0.43	(7270.75)	$2^-,3^-$	2681.85	$^+$
x4603.3 *8*	0.025				
4618.5 *8*	0.10	(7270.75)	$2^-,3^-$	2652.0	$(2^-,3^-)$
x4636.7 *2*	0.22				
4643.9 *2*	0.84	(7270.75)	$2^-,3^-$	2626.75	$2^-,3^-$
x4670.6 *8*	0.075				
4690.0 *2*	1.00	(7270.75)	$2^-,3^-$	2580.54	
x4709.0 *8*	0.075				
4725.0 *2*	2.76	(7270.75)	$2^-,3^-$	2545.65	2,(3)
4739.4 *8*	0.070	4739.6	$^+$	0.0	3^+
4751.7 *8*	0.025	(7270.75)	$2^-,3^-$	2518.8	(1^+)
x4764.1 *8*	0.025				
4768.8 *8*	0.050	4768.59	$^+$	0.0	3^+
4793.9 *8*	0.095	4820.6		26.516	2^+
4798.1 *8*	0.070	4799.33	$^+$	0.0	3^+
4816.7 *8*	0.070	4816.9		0.0	3^+
4829.7 *2*	1.25	(7270.75)	$2^-,3^-$	2441.27	2^+
4841.0 *2*	0.63	4841.66	$2^-,3^-$	0.0	3^+
x4854.1 *8*	0.070				
4875.2 *2*	0.72	(7270.75)	$2^-,3^-$	2395.89	2,3
4907.9 *2*	0.68	(7270.75)	$2^-,3^-$	2362.62	2,3
4935.2 *2*	0.36	(7270.75)	$2^-,3^-$	2335.32	$^+$
4949.4 *2*	2.02	(7270.75)	$2^-,3^-$	2321.15	2
4969.8 *2*	0.36	(7270.75)	$2^-,3^-$	2300.72	$^+$
x4982.9 *8*	0.050				
5015.0 *2*	6.12	(7270.75)	$2^-,3^-$	2255.24	3^+
5035.5 *2*	1.02	(7270.75)	$2^-,3^-$	2235.14	2,(3)
5068.3 *2*	2.73	(7270.75)	$2^-,3^-$	2202.73	1
x5102.0 *2*	0.35				
5111.7 *2*	0.30	(7270.75)	$2^-,3^-$	2158.97	
5129.5 *2*	0.15	5129.75	$^-$	0.0	3^+
x5135.1† *10*	0.15				
5181.6 *2*	3.79	(7270.75)	$2^-,3^-$	2089.38	3^-
5199.1 *2*	0.85	(7270.75)	$2^-,3^-$	2071.39	2,3
x5245.3 *2*	0.17				
5254.3 *2*	1.24	(7270.75)	$2^-,3^-$	2016.39	2^+
5290.3 *8*	0.055	(7270.75)	$2^-,3^-$	1980.2	

Continued on next page (footnotes at end of table)

^{55}Mn(n,γ), (pol n,γ) E=th 1980De20,1975Co05,1974Bo19 (continued)

$\gamma(^{56}Mn)$ (continued)

E_γ &	I_γ #a	E_i(level)	J_i^π	E_f	J_f^π
5298.3 *8*	0.055	5298.6	$^-$	0.0	3^+
5313.6 *8*	0.085	5313.9	$^-$	0.0	3^+
5404.5 *2*	0.39	(7270.75)	2^-,3^-	1865.97	(2^+)
x5432.9 *2*	1.33				
5437.0 *2*	1.27	(7270.75)	2^-,3^-	1833.67	$^+$
x5464.7 *8*	0.030				
5485.5 *8*	0.055	5485.8	$^-$	0.0	3^+
5493.5 *8*	0.030	5604.2		110.428	1^+
5527.4 *2*	6.72	(7270.75)	2^-,3^-	1744.3	2^+
5543.0 *2*	0.17	(7270.75)	2^-,3^-	1727.46	$^+$
5563.9 *8*	0.030	5564.2		0.0	3^+
5601.3 *8*	0.045	5712.0		110.428	1^+
5625.3 *8*	0.020	5652.1	$(2^-,3^-)$	26.516	2^+
5637.5 *8*	0.030	5664.3		26.516	2^+
x5678.6 *8*	0.030				
x5707.0 *8*	0.045				
5714.5 *2*	0.13	5714.81	$^+$	0.0	3^+
5733.9 *8*	0.015	5734.2	$(^+)$	0.0	3^+
5760.9 *2*	1.74	(7270.75)	2^-,3^-	1509.55	2^+,3^+
5794.8 *8*	0.015	5795.1	$(^+)$	0.0	3^+
5846.0 *8*	0.03	5956.8	$(^-)$	110.428	1^+
x5905.6 *8*	0.10				
5920.5 *2*	0.82	(7270.75)	2^-,3^-	1349.95	2^+,3^+
5976.6 *2*	0.18	(7270.75)	2^-,3^-	1293.81	$(2)^+$
x6019.2 *8*	0.065				
6030.6 *2*	0.52	(7270.75)	2^-,3^-	1239.85	1^+,2^+,3^+
6103.9 *2*	2.00	(7270.75)	2^-,3^-	1166.54	1^+
x6318.1 *8*	0.013				
6429.1 *2*	0.73	(7270.75)	2^-,3^-	840.38	$(3)^+$
6553.8 *2*	0.19	(7270.75)	2^-,3^-	716.121	$(4)^+$
x6619.6 *2*	0.15				
x6624.9 *2*	0.12				
6783.3 *2*	3.42	(7270.75)	2^-,3^-	486.251	3
6928.7 *2*	2.34	(7270.75)	2^-,3^-	340.957	3
7057.8 *2*	11.0	(7270.75)	2^-,3^-	212.004	4^+
7159.7 *2*	5.96	(7270.75)	2^-,3^-	110.428	1^+
7243.8 *2*	12.3	(7270.75)	2^-,3^-	26.516	2^+
7270.3 *2*	3.5	(7270.75)	2^-,3^-	0.0	3^+

† From 1970Or05.
‡ From 1971Va01.
# Photons per 100 neutron captures.
@ From α(exp) (1961Es02 and 1971Va01) for 26.4 and 83.9 γ's; and from $\gamma(\theta)$ and δ (1970Me14) for other γ's.
& 1971Va01 give a calibration uncertainty of $5.\times10^{-5}$ (max). This should be added to the uncertainties given for E$\gamma\leq$541.4 and Eγ=716.43.
a Intensity per 100 neutron captures.
x γ ray not placed in level scheme.

^{55}Mn(n,γ), (pol n,γ) E=th 1980De20,1975Co05,1974Bo19

Level Scheme

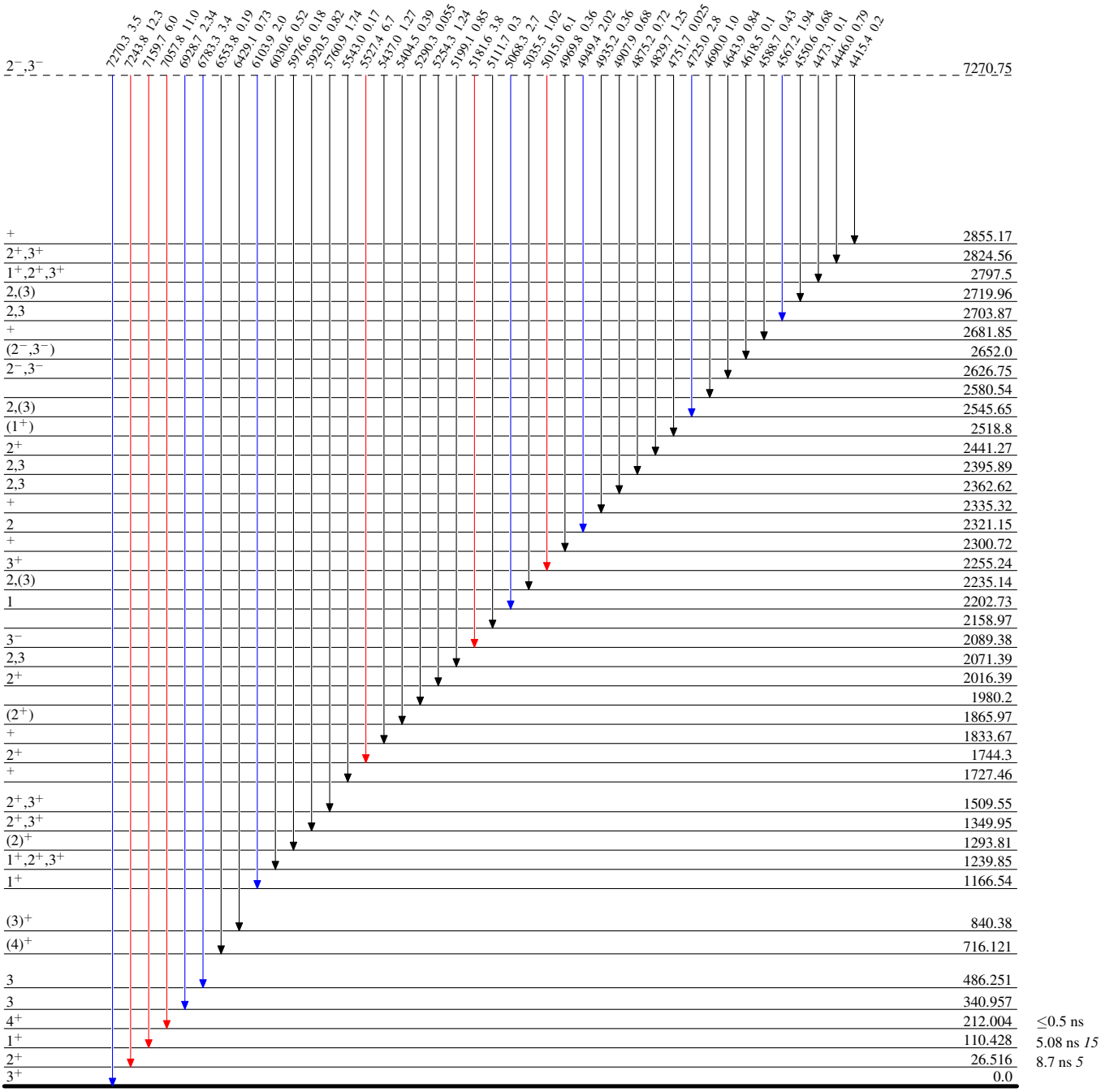
Intensities: I_γ per 100 neutron captures

Legend

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

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

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



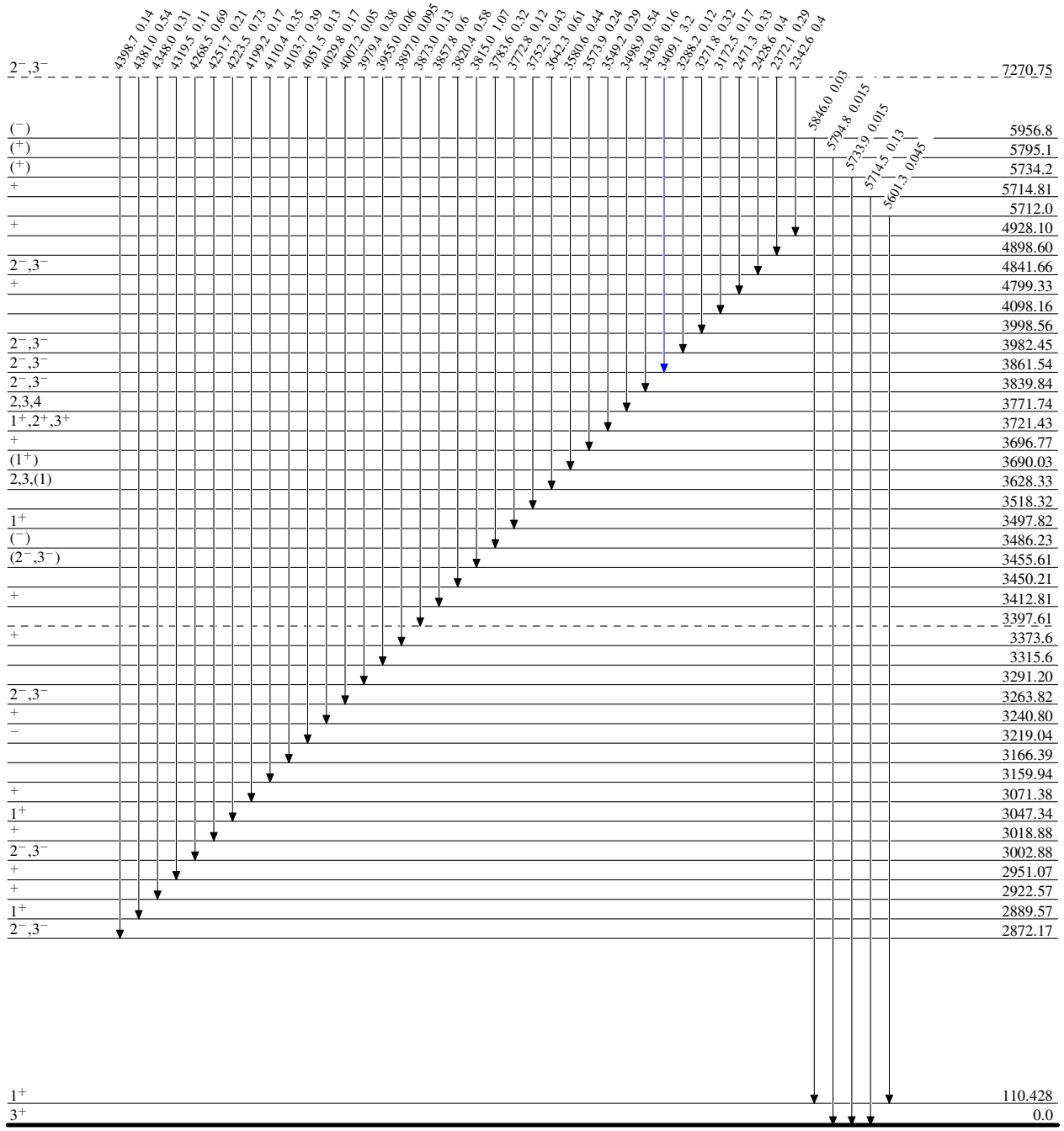
$^{56}_{25}Mn_{31}$

^{55}Mn(n,γ), (pol n,γ) E=th 1980De20,1975Co05,1974Bo19

Level Scheme (continued)

Intensities: I_γ per 100 neutron captures

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



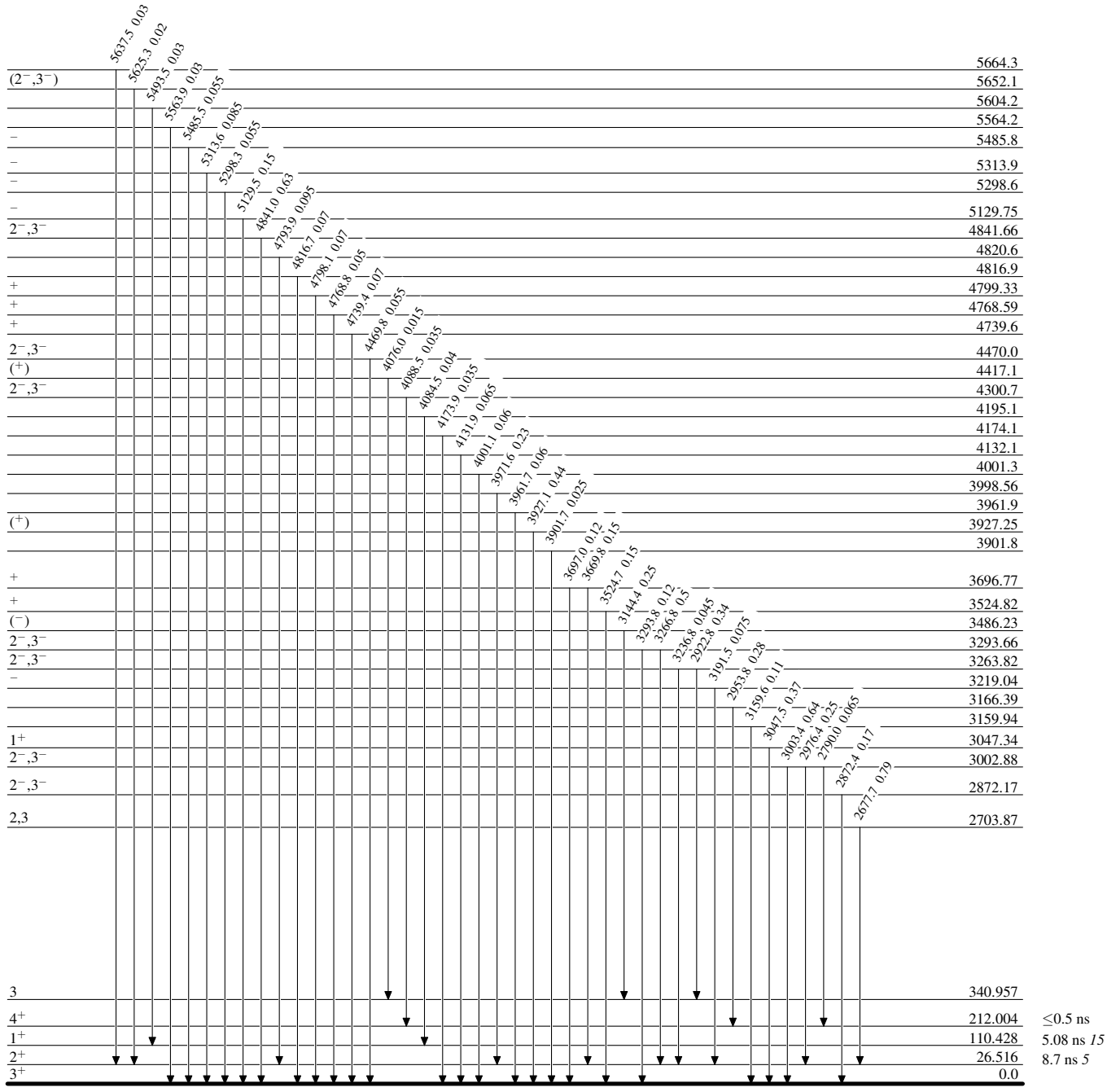
$^{56}_{25}Mn_{31}$

^{55}Mn(n,γ), (pol n,γ) E=th 1980De20,1975Co05,1974Bo19

Level Scheme (continued)

Intensities: I_γ per 100 neutron captures

Legend
- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$



$^{56}_{25}Mn_{31}$

^{55}Mn(n,γ), (pol n,γ) E=th 1980De20,1975Co05,1974Bo19

Level Scheme (continued)

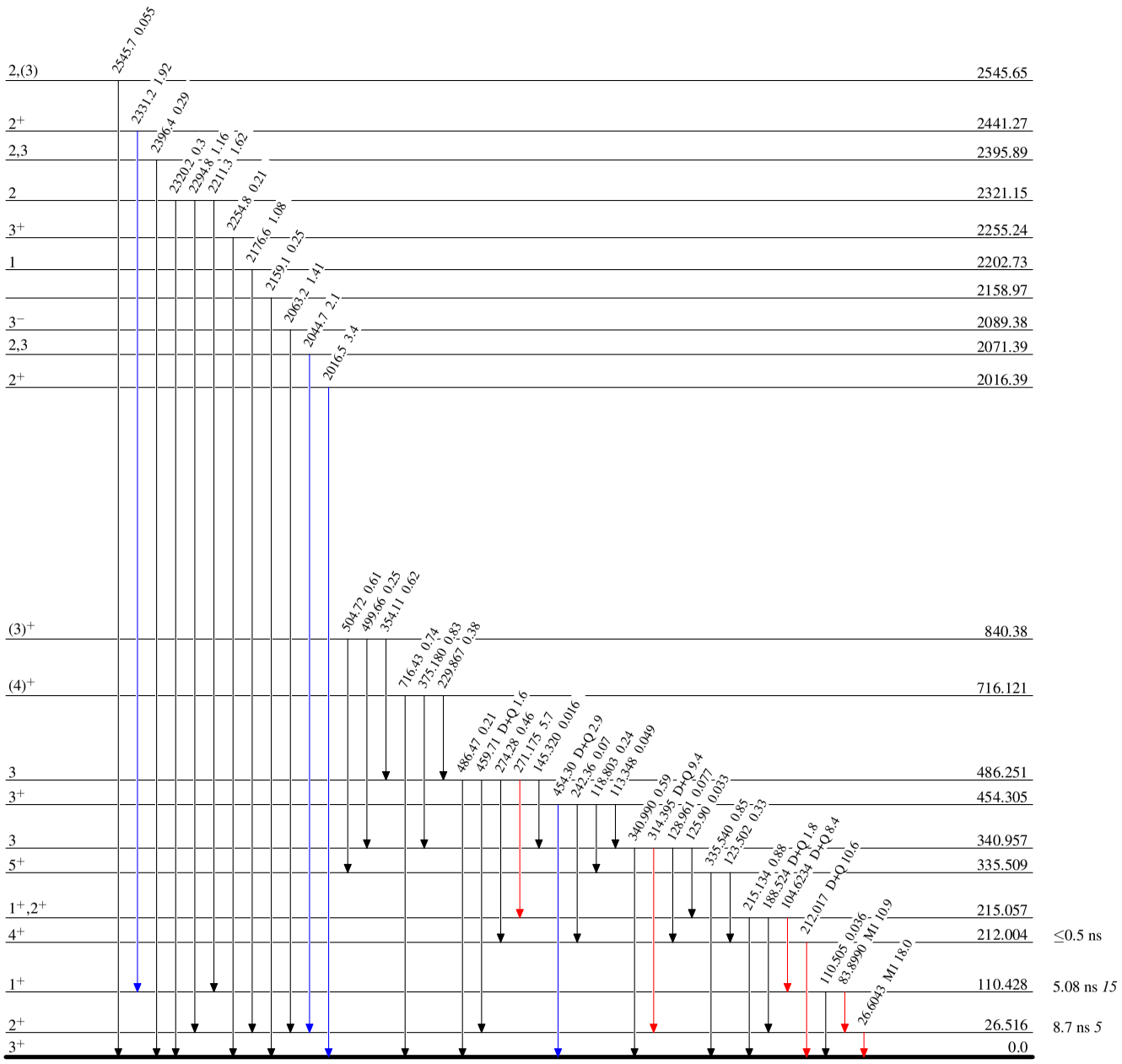
Intensities: I_γ per 100 neutron captures

Legend

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

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

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



$^{56}_{25}Mn_{31}$