^{60}Ni(α,nγ), (HI,xnγ) 1979Mu08,1978Mu02,1998Si04

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huo Junde, Yang Dong, Huo Meirong,	ENSDF	28-Aug-2008

1979Mu08: ^{60}Ni(α,nγ), E=9.5-19 MeV; ^{54}Fe(^{11}B,npγ), E=30 MeV; ^{58}Ni(^{7}Li,npγ), E=20 MeV. $\gamma(\theta)$, nγ, $\gamma\gamma$ coin, linear polarization, $T_{1/2}$.
1978Mu02: ^{60}Ni(α,nγ), E=8.5-16 MeV, $\gamma(\theta)$, p(γ), $\gamma\gamma$ coin, linear polarization, $T_{1/2}$.
1978Me17: ^{60}Ni(α,nγ), E=10, 12, 14 MeV, $\gamma(\theta)$, $\gamma\gamma$ coin ^{54}Fe(^{12}C,2pnγ), E=50, 55, 60 MeV, $\gamma(\theta)$, $\gamma\gamma$ coin.
1977Ni01: ^{60}Ni(α,nγ), E=12 MeV, $\gamma(\theta$,H) of 193γ.
1996HaZV: ^{40}Ca(^{28}Si,4pnγ), E=120 MeV, measured $\gamma\gamma$-coin with 10 Compton-suppressed HPGe detectors, a typical Ge detector has the resolution of 2.1 keV at 1.33 MeV.
1998Si04: ^{50}Cr(^{16}O,2pnγ), E=75 MeV, measured $\gamma\gamma$-coin with 12 Compton suppressed HPGe detectors along with 14 BGO detectors to reduce radioactive background. Measured $\gamma(\theta)$, DCO ratios.
Others: 1967Bi04, 1968Bi03.
Data below 1.3 MeV are from 1978Mu02, others are from 1979Mu08, except as noted.

^{63}Zn Levels

E(level)	J$^\pi$	$T_{1/2}$[#]	Comments
0[b]	3/2$^-$		
192.90[b] *7*	5/2$^-$	0.53[@] ns *12*	$T_{1/2}$: other: 0.62 ns *21* from g$T_{1/2}$=0.19 ns *7*, and if g=0.30 (1977Ni01, integral rotation).
248.17 *7*	1/2$^-$	33[@] ps *8*	J$^\pi$: from $\gamma(\theta)$ and linear polarization of the 1037-keV γ ray deexciting the 5/2$^-$ level.
627.19 *8*	1/2$^-$		J$^\pi$: deduced (1/2$^-$): $\gamma(\theta)$ and yield curve of the decay γ are similar to those of the 248-keV γ ray.
637.21 *9*	3/2$^-$		J$^\pi$: from $\gamma(\theta)$ and linear polarization of the 638-keV decay γ.
650.21 *7*	5/2$^-$		J$^\pi$: from $\gamma(\theta)$ and linear polarization of both decay γ's.
1023.56 *8*	3/2$^-$	>1.0 ps	J$^\pi$: deduced 3/2$^{(-)}$: 3/2 from $\gamma(\theta)$ and linear polarization of the 776-keV decay γ, positive parity favored at this low excitation energy.
1063.78[b] *9*	7/2$^-$		J$^\pi$: 3/2$^-$, 7/2$^-$ from $\gamma(\theta)$ and linear-polarization data.
1065.91 *20*	1/2$^-$		J$^\pi$: 3/2$^-$, 7/2$^-$ from $\gamma(\theta)$ and linear-polarization data.
1206.42 *10*	7/2$^-$		J$^\pi$: from $\gamma(\theta)$ and linear polarization of 1013- and 1207-keV decay γ's.
1284.49 *11*	5/2$^-$		J$^\pi$: from $\gamma(\theta)$ and linear polarization of 1036- and 1284-keV decay γ's.
1394.4 *3*	3/2$^-$	87 fs *25*	J$^\pi$: 3/2 from $\gamma(\theta)$ and linear polarization of the 1394-keV decay γ, 3/2$^+$ leads to unreasonably large B(M2)(W.u.) and is, therefore, rejected.
1437.4 *3*	9/2$^-$[‡]	0.69[a] ps *21*	
1664.0 *4*	7/2$^-$	232[&] fs *63*	J$^\pi$: from $\gamma(\theta)$ and linear polarization of decay γ's.
1691.34 *24*	5/2$^-$	83 fs *21*	J$^\pi$: from $\gamma(\theta)$ and linear polarization of 1691-keV decay γ.
1703.7 *3*	9/2$^+$	32[@] ps *4*	J$^\pi$: from $\gamma(\theta)$ and linear polarization of 497-keV decay γ.
1861.7 *4*	9/2$^-$	0.49 ps *16*	J$^\pi$: from $\gamma(\theta)$ and linear polarization of 797 and 1212-keV decay γ's.
1977.7 *4*	$^-$	<280 fs	J$^\pi$: deduced 9/2$^-$: 9/2$^-$, 5/2$^+$ from $\gamma(\theta)$ and linear polarization of the 1327-keV decay γ, 5/2$^+$ leads to unreasonably large B(M2)(W.u.) and is, therefore, rejected.
2050.7[b] *5*	9/2$^-$		J$^\pi$: deduced $\geq$5/2$^-$ from $\gamma(\theta)$ and linear polarization of the 987-keV γ transition.
2157.4 *3*	3/2$^-$	180[&] fs *49*	J$^\pi$: 3/2 from $\gamma(\theta)$ and linear polarization of the 1909-keV decay γ, 3/2$^+$ rejected from L(p,d)=1.
2233.8 *3*	11/2$^-$	>1.4 ps	J$^\pi$: from $\gamma(\theta)$ and linear polarization of 570-keV decay γ.
2249.5 *4*	$^-$	104[&] fs *28*	J$^\pi$: deduced 9/2$^-$ from $\gamma(\theta)$ and linear polarization of the 1185-keV decay γ.
2289.7 *4*	3/2$^-$	14 fs *7*	J$^\pi$: 3/2 from $\gamma(\theta)$ and linear polarization of the 2042-keV decay γ, 3/2$^+$ leads to unreasonably large B(M2)(W.u.) and is, therefore, rejected.
2319.3[b] *4*	11/2$^-$[‡]	347 fs *90*	
2379.8 *5*	9/2$^+$	>1.4 ps	J$^\pi$: deduced 9/2$^{(+)}$: 9/2 from $\gamma(\theta)$ and linear polarization of the decay γ, 9/2$^+$ favored due to transition to 9/2$^+$ level.
2585.2 *4*	13/2$^+$[†]	3.54[@] ps *28*	J$^\pi$: $\gamma(\theta)$ and linear polarization of the decay γ indicate a stretched E2, >9/2 from the

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$^{60}Ni(\alpha,n\gamma)$, (HI,xnγ) 1979Mu08,1978Mu02,1998Si04 (continued)

^{63}Zn Levels (continued)

E(level)	J^π	$T_{1/2}$[#]	Comments
			yield curve.
2635.2 *4*	7/2$^-$	187[a] fs *52*	J^π: from $\gamma(\theta)$ and linear polarization of the 1429-keV γ.
2826.9 *5*	11/2$^+$	291[a] fs *90*	J^π: 13/2$^-$, 11/2$^+$ from $\gamma(\theta)$ and linear polarization of the decay γ, 13/2$^-$ leads to unreasonably large B(M2)(W.u.) and is, therefore, rejected.
2911.9 *6*	9/2[‡]	>1.4 ps	
2934.5 *5*	13/2$^-$[‡]	215 fs *62*	
3481.0 *7*	13/2$^+$		From $^{50}Cr(^{16}O,2pn\gamma)$ and $^{40}Ca(^{28}Si,4pn\gamma)$. J^π: based on mult=M2 of 875γ feeding from 15/2$^-$.
3528.0[b] *6*	13/2$^-$		From $^{50}Cr(^{16}O,2pn\gamma)$. J^π: the level feeds the 9/2$^-$ and 11/2$^-$ through two parallel transitions of 1478 and 1209 keV, respectively.
3763.5 *5*	(17/2$^+$)[†‡]		
3770.4 *7*	(15/2)$^+$		From $^{50}Cr(^{16}O,2pn\gamma)$. J^π: 944γ to 11/2$^+$ level, 1185γ(Q) to 13/2$^+$ level.
3891.6 *9*			From $^{40}Ca(^{28}Si,4pn\gamma)$.
4355.3[b] *6*	(15/2)$^-$		From $^{50}Cr(^{16}O,2pn\gamma)$. J^π: 875γ(M2) to 13/2$^+$ level, 591γ(E1) to 17/2$^+$ level.
4902.9 *9*			From $^{40}Ca(^{28}Si,4pn\gamma)$.
5077.0 *7*	(19/2)$^+$		From $^{50}Cr(^{16}O,2pn\gamma)$ and $^{40}Ca(^{28}Si,4pn\gamma)$. J^π: 1307γ(Q) to 15/2$^+$ level.
5347.2 *7*	21/2$^+$[†]	<280 fs	J^π: 21/2, 17/2 from $\gamma(\theta)$ and linear polarization of the decay γ, 21/2$^-$ and 17/2$^-$ lead to unreasonably large B(M2)(W.u.) and are, therefore, rejected. 1584γ(E2) to 17/2$^+$ ruled out 17/2$^+$.
5406.6 *7*	17/2$^-$		From $^{50}Cr(^{16}O,2pn\gamma)$. J^π: 1879γ(Q) to 13/2$^-$ level.
5424.2[b] *6*	17/2$^-$		From $^{50}Cr(^{16}O,2pn\gamma)$. J^π: 1897γ(Q) to 13/2$^-$ level.
5916.4[b] *7*	19/2$^-$		From $^{50}Cr(^{16}O,2pn\gamma)$ and $^{40}Ca(^{28}Si,4pn\gamma)$. J^π: 1561γ to 15/2$^-$ level. 492γ and 510γ to 17/2$^-$ level, respectively.
6234.5[b] *7*	21/2$^-$		From $^{50}Cr(^{16}O,2pn\gamma)$ and $^{40}Ca(^{28}Si,4pn\gamma)$. J^π: 810γ(Q) to 17/2$^-$ level.
6488.0 *13*	(23/2)$^+$		From $^{50}Cr(^{16}O,2pn\gamma)$ and $^{40}Ca(^{28}Si,4pn\gamma)$. J^π: 1411γ, 1307γ, and 944γ in cascade.
6570.7[b] *8*	23/2$^{(-)}$		From $^{50}Cr(^{16}O,2pn\gamma)$ and $^{40}Ca(^{28}Si,4pn\gamma)$. J^π: 654γ(Q) to 19/2$^-$ level.
7611.5[b] *12*	25/2$^-$		From $^{50}Cr(^{16}O,2pn\gamma)$. J^π: 1377γ(Q) to 21/2$^-$ level.
7927.7[b] *13*	27/2$^{(-)}$		From $^{50}Cr(^{16}O,2pn\gamma)$ and $^{40}Ca(^{28}Si,4pn\gamma)$. J^π: 1847γ, 1357γ, and 1224γ in cascade.
9097.6[b] *16*	(29/2$^-$)		From $^{50}Cr(^{16}O,2pn\gamma)$. J^π: 1485γ(Q) to 25/2$^-$ level.
9774.8[b] *17*	(31/2$^-$)		From $^{50}Cr(^{16}O,2pn\gamma)$. J^π: 1847γ, 1357γ, and 1224γ in cascade.

† From $\gamma(\theta)$ in (α,nγ), large cross section in (^{12}C,2pnγ), and systematics of particle-core coupling states.
‡ From $\gamma(\theta)$ and linear polarization of decay γ (1979Mu08).
# From DSAM, except as noted.
@ Recoil-distance method.
& Deduced from weighted f factors.

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^{60}Ni(α,nγ), (HI,xnγ) 1979Mu08,1978Mu02,1998Si04 (continued)

^{63}Zn Levels (continued)

[a] Deduced from nγ coincidence experiment.
[b] K=3/2⁻ band.

γ(^{63}Zn)

E_i(level)	J^π_i	E_γ	I_γ[‡]	E_f	J^π_f	Mult.[#]	δ[#]	Comments
192.90	5/2⁻	192.9[†] *1*	100	0	3/2⁻	M1+E2	+0.07 *3*	δ: others: −0.03 *2* (1978Me17), −0.07 *3* (1968Bi03). DCO=1.4 *1*.
248.17	1/2⁻	248.4 *1*	100	0	3/2⁻			
627.19	1/2⁻	627.0 *1*	100	0	3/2⁻			
637.21	3/2⁻	389.4[†] *2*	95.8 *4*	248.17	1/2⁻	M1+E2	−0.05 *+3−4*	
		637.1[†] *1*	4.2 *4*	0	3/2⁻	M1+E2	+0.04 *2*	
650.21	5/2⁻	457.4[†] *1*	14.6 *12*	192.90	5/2⁻	M1+E2	−0.08 *+1−2*	δ: others: 0.00 *4* or +1.7 *2* (1978Me17).
		650.2[†] *1*	85.4 *12*	0	3/2⁻	M1+E2	−0.57 *3*	δ: other: +0.29 *3* (1978Me17). DCO>2.
1023.56	3/2⁻	373.5[†] *1*	36.6 *16*	650.21	5/2⁻	(M1+E2)	−0.82 *+4−5*	δ: others: +0.4 *1* or +1.5 *5* (1978Me17).
		396.2[†] *1*	5.8 *4*	627.19	1/2⁻	(M1+E2)	+0.57 *+6−3*	
		775.5[†] *1*	27.0 *20*	248.17	1/2⁻	(M1+E2)	−0.91 *+24−6*	δ: others: +0.2 *1* or +1.3 *3* (1978Me17).
		1023.2[†] *2*	30.6 *16*	0	3/2⁻	(M1+E2)	+1.9 *2*	δ: others: −0.4 *2* or −1.5 *5* (1978Me17).
1063.78	7/2⁻	413.5 *1*	16.3 *14*	650.21	5/2⁻	D+Q[@]	+0.08[@] *3*	DCO=2.3 *2*.
		870.8 *1*	10.4 *7*	192.90	5/2⁻	D+Q[@]	−0.51[@] *5*	DCO=1.2 *1*.
		1064.1 *2*	73.3 *14*	0	3/2⁻			DCO=1.0 *1*.
1065.91	1/2⁻	1065.9 *2*	100	0	3/2⁻			
1206.42	7/2⁻	556	2.7 *3*	650.21	5/2⁻	D+Q	−1.24 *9*	
		569.4	9.4[&] *8*	637.21	3/2⁻			E_γ: from 1978Me17.
		1013.4[†] *1*	45.8 *20*	192.90	5/2⁻	M1+E2	+4.7 *+1−7*	δ: others: −0.45 *10* or +7.0 *25* (1978Me17). DCO=1.2 *2*.
		1206.8[†] *2*	42.0 *20*	0	3/2⁻	E2+M3	−0.03 *2*	DCO=1.0 *2*.
1284.49	5/2⁻	1036.3[†] *2*	34.5 *19*	248.17	1/2⁻	E2(+M3)	−0.01 *1*	
		1091.6[†] *1*	59.4 *20*	192.90	5/2⁻			δ: +0.39 *5* or −4.3 *12* (1978Me17).
		1284.0[†] *5*	6.1 *6*	0	3/2⁻	M1+E2	−0.7 *2*	δ: other: +0.8 *3* (1978Me17).
1394.4	3/2⁻	767.2[†] *6*	43 *2*	627.19	1/2⁻			
		1146.5 *6*	5 *2*	248.17	1/2⁻			
		1201.5 *5*	4 *3*	192.90	5/2⁻			
		1394.2[†] *8*	48 *1*	0	3/2⁻	M1+E2	+0.36 *+14−10*	
1437.4	9/2⁻	1244.9[†] *4*	100	192.90	5/2⁻	E2(+M3)	−0.01 *2*	δ: other: −1.2 *2* (1978Me17).
1664.0	7/2⁻	1471.3[†] *5*	75 *1*	192.90	5/2⁻	M1+E2	+0.18 *3*	
		1664.0[†] *6*	25 *1*	0	3/2⁻	E2(+M3)	+0.03 *3*	
1691.34	5/2⁻	1053.7 *5*	6 *3*	637.21	3/2⁻			
		1498.6 *3*	6 *3*	192.90	5/2⁻			
		1691.2[†] *6*	88 *1*	0	3/2⁻	M1+E2	−0.10 *3*	
1703.7	9/2⁺	267[&]	1.9[&] *1*	1437.4	9/2⁻			
		497.2[†] *4*	14.1[&] *4*	1206.42	7/2⁻	E1(+M2)	+0.02 *2*	DCO=2.0 *2*.
		639.5 *6*	82[&] *4*	1063.78	7/2⁻	D(+Q)[@]	0.00[@] *2*	DCO=1.8 *1*.
		1510[&]	2.0[&] *2*	192.90	5/2⁻			
1861.7	9/2⁻	797.4[†] *6*	26 *3*	1063.78	7/2⁻	M1+E2	−0.03 *2*	
		1211.5[†] *5*	70 *3*	650.21	5/2⁻	E2(+M3)	+0.01 *2*	

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$^{60}Ni(\alpha,n\gamma)$, (HI,xnγ) 1979Mu08,1978Mu02,1998Si04 (continued)

$\gamma(^{63}Zn)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#]	Comments
1861.7	9/2⁻	1669.3 *7*	4 *2*	192.90	5/2⁻			
1977.7	⁻	1327.3[†] *4*	23 *2*	650.21	5/2⁻	E2(+M3)	−0.01 *2*	
		1785.1[†] *6*	77 *2*	192.90	5/2⁻	E2+M3	−0.10 *5*	
2050.7	9/2⁻	844.6 *7*	29 *2*	1206.42	7/2⁻			
		986.9[†] *7*	68 *2*	1063.78	7/2⁻	D+Q[@]	+0.40[@] *5*	DCO=2.1 *5*.
		1858[&]	2.8[&] *4*	192.90	5/2⁻			
2157.4	3/2⁻	1530.0[†] *4*	10 *1*	627.19	1/2⁻	M1+E2	−2.0 *2*	
		1909.3[†] *4*	90 *1*	248.17	1/2⁻	M1+E2	−2.3 *2*	
2233.8	11/2⁻	570.2[†] *5*	38 *1*	1664.0	7/2⁻	E2(+M3)	−0.03 *3*	
		796.6 *3*	20 *2*	1437.4	9/2⁻			
		1169.6 *4*	42 *2*	1063.78	7/2⁻			
2249.5	⁻	1185.4[†] *5*	71 *2*	1063.78	7/2⁻	M1+E2	+0.9 *2*	
		1599.5[†] *5*	29 *2*	650.21	5/2⁻	E2(+M3)	−0.04 *3*	
2289.7	3/2⁻	1639.1 *5*	75 *3*	650.21	5/2⁻			
		2041.9[†] *5*	25 *3*	248.17	1/2⁻	M1+E2	−0.6 *3*	
2319.3	11/2⁻	1255.6[†] *4*	100	1063.78	7/2⁻	E2(+M3)	−0.05 *+5−2*	DCO=0.8 *2*.
2379.8	9/2⁺	676.1[†] *3*	100	1703.7	9/2⁺	(M1+E2)	−2.5 *+5−12*	
2585.2	13/2⁺	881.3[†] *3*	100	1703.7	9/2⁺	E2+M3	−0.25 *10*	DCO=0.9 *1*.
2635.2	7/2⁻	1428.5[†] *4*	70 *2*	1206.42	7/2⁻	M1(+E2)	+0.02 *7*	
		2442.7 *5*	30 *2*	192.90	5/2⁻			
2826.9	11/2⁺	1123.3[†] *4*	100	1703.7	9/2⁺	M1+E2	+0.7 *1*	DCO=0.8 *2*.
2911.9	9/2	1705.5[†] *5*	100	1206.42	7/2⁻	D+Q	−1.7 *1*	
2934.5	13/2⁻	1497.2[†] *5*	100	1437.4	9/2⁻	E2(+M3)	−0.02 *3*	DCO=1.6 *5*.
3481.0	13/2⁺	654[&]		2826.9	11/2⁺			
		1778[&]	100[&]	1703.7	9/2⁺			
3528.0	13/2⁻	1209[&]	58[&] *4*	2319.3	11/2⁻			DCO=1.9 *4*.
		1478[&]	42[&] *2*	2050.7	9/2⁻			DCO=1.0 *2*.
3763.5	(17/2⁺)	1177.7[†] *5*	100	2585.2	13/2⁺	(E2+M3)	−0.20 *3*	DCO=1.1 *1*.
3770.4	(15/2)⁺	944[&]	44[&] *3*	2826.9	11/2⁺			DCO=1.4 *4*.
		1185[&]	56[&] *1*	2585.2	13/2⁺	Q[&]		DCO=0.9 *1*.
3891.6		1306[a]		2585.2	13/2⁺			
4355.3	(15/2)⁻	591[&]	49.6[&] *24*	3763.5	(17/2⁺)	E1		DCO=1.3 *6*.
		875[&]	6.6[&] *7*	3481.0	13/2⁺	M2[&]		
		1770[&]	43.8[&] *24*	2585.2	13/2⁺			DCO=1.2 *3*.
		(2036)		2319.3	11/2⁻			
4902.9		1139[a]		3763.5	(17/2⁺)			
5077.0	(19/2)⁺	1185[a]		3891.6				
		1307[&]	30.2[&] *15*	3770.4	(15/2)⁺	Q		DCO=0.9 *2*.
		1313[&]	70[&] *4*	3763.5	(17/2⁺)			DCO=0.9 *2*.
5347.2	21/2⁺	1584.1[†] *6*	100	3763.5	(17/2⁺)	E2		Mult.: from $\gamma(\theta)$ and RUL. DCO=1.2 *1*.
5406.6	17/2⁻	1879[&]	78[&] *5*	3528.0	13/2⁻	Q		DCO=1.1 *2*.
		2472[&]	22[&] *5*	2934.5	13/2⁻			
5424.2	17/2⁻	1659[&]	41.3[&] *25*	3763.5	(17/2⁺)			DCO>2.
		1897[&]	53.2[&] *30*	3528.0	13/2⁻	Q		DCO=1.0 *2*.
		2490[&]	5.5[&] *19*	2934.5	13/2⁻			
5916.4	19/2⁻	492[&]	28[&] *2*	5424.2	17/2⁻			

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^{60}Ni(α,nγ), (HI,xnγ) 1979Mu08,1978Mu02,1998Si04 (continued)

γ(^{63}Zn) (continued)

E_i(level)	J^π_i	E_γ	I_γ[‡]	E_f	J^π_f	Mult.[#]	Comments
5916.4	19/2⁻	510[&]	23[&] *3*	5406.6	17/2⁻		
		1013[a]		4902.9			
		1561[&]	49[&] *3*	4355.3	(15/2)⁻		
6234.5	21/2⁻	318[&]	12.1[&] *6*	5916.4	19/2⁻		DCO=1.4 *3*.
		810[&]	22.4[&] *11*	5424.2	17/2⁻	Q	DCO=0.7 *2*.
		828[&]	20.1[&] *17*	5406.6	17/2⁻	Q	DCO=1.0 *2*.
		888[&]	3.8[&] *3*	5347.2	21/2⁺		
		1157[&]	41.2[&] *22*	5077.0	(19/2)⁺		DCO=1.4 *3*.
6488.0	(23/2)⁺	1411[&]	100 *7*	5077.0	(19/2)⁺		DCO=0.8 *3*.
6570.7	23/2⁽⁻⁾	336[&]	8.4[&] *5*	6234.5	21/2⁻		DCO=2.0 *4*.
		654[&]	8.7[&] *5*	5916.4	19/2⁻	Q	DCO=1.1 *2*.
		1224[&]	83[&] *4*	5347.2	21/2⁺		DCO=2.1 *2*.
7611.5	25/2⁻	1377[&]	100[&] *5*	6234.5	21/2⁻	Q	DCO=0.7 *2*.
7927.7	27/2⁽⁻⁾	1357[&]	100[&] *5*	6570.7	23/2⁽⁻⁾	Q	DCO=1.3 *1*.
9097.6	(29/2⁻)	1486[&]	100[&] *6*	7611.5	25/2⁻	Q	DCO=1.2 *3*.
9774.8	(31/2⁻)	1847[&]	100[&] *10*	7927.7	27/2⁽⁻⁾		

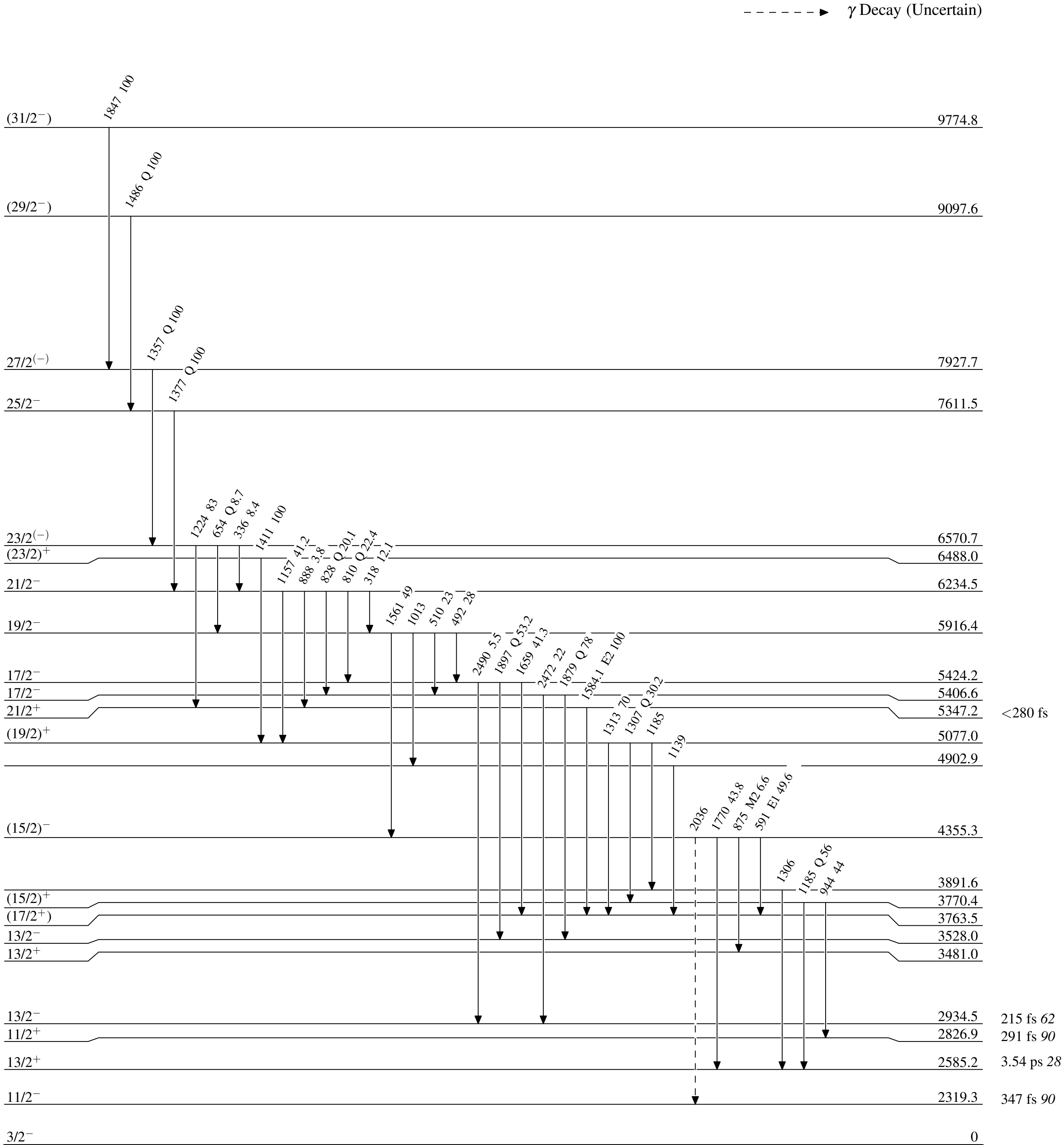
[†] γ linear polarization measured (1979Mu08,1978Mu02).
[‡] % photon branching from each level.
[#] From γ(θ) and linear polarization (1979Mu08,1978Mu02), except as noted otherwise.
[@] From γ(θ) only (1978Me17).
[&] From 1998Si04.
[a] From 1996HaZV.

^{60}Ni(α,nγ), (HI,xnγ) 1979Mu08,1978Mu02,1998Si04

Legend

Level Scheme

Intensities: % photon branching from each level

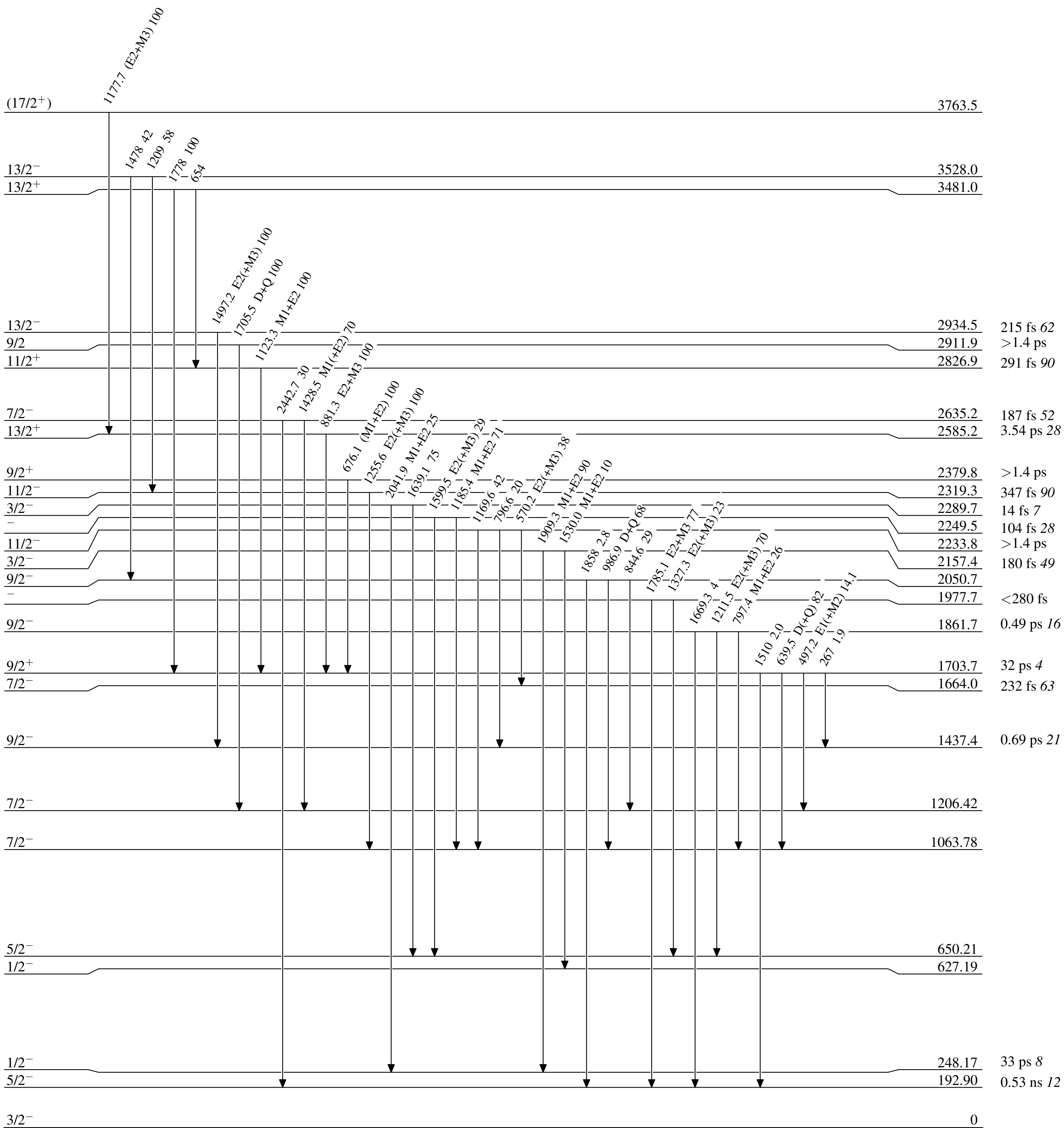


$^{63}_{30}Zn_{33}$

^{60}Ni(α,nγ), (HI,xnγ) 1979Mu08,1978Mu02,1998Si04

Level Scheme (continued)

Intensities: % photon branching from each level

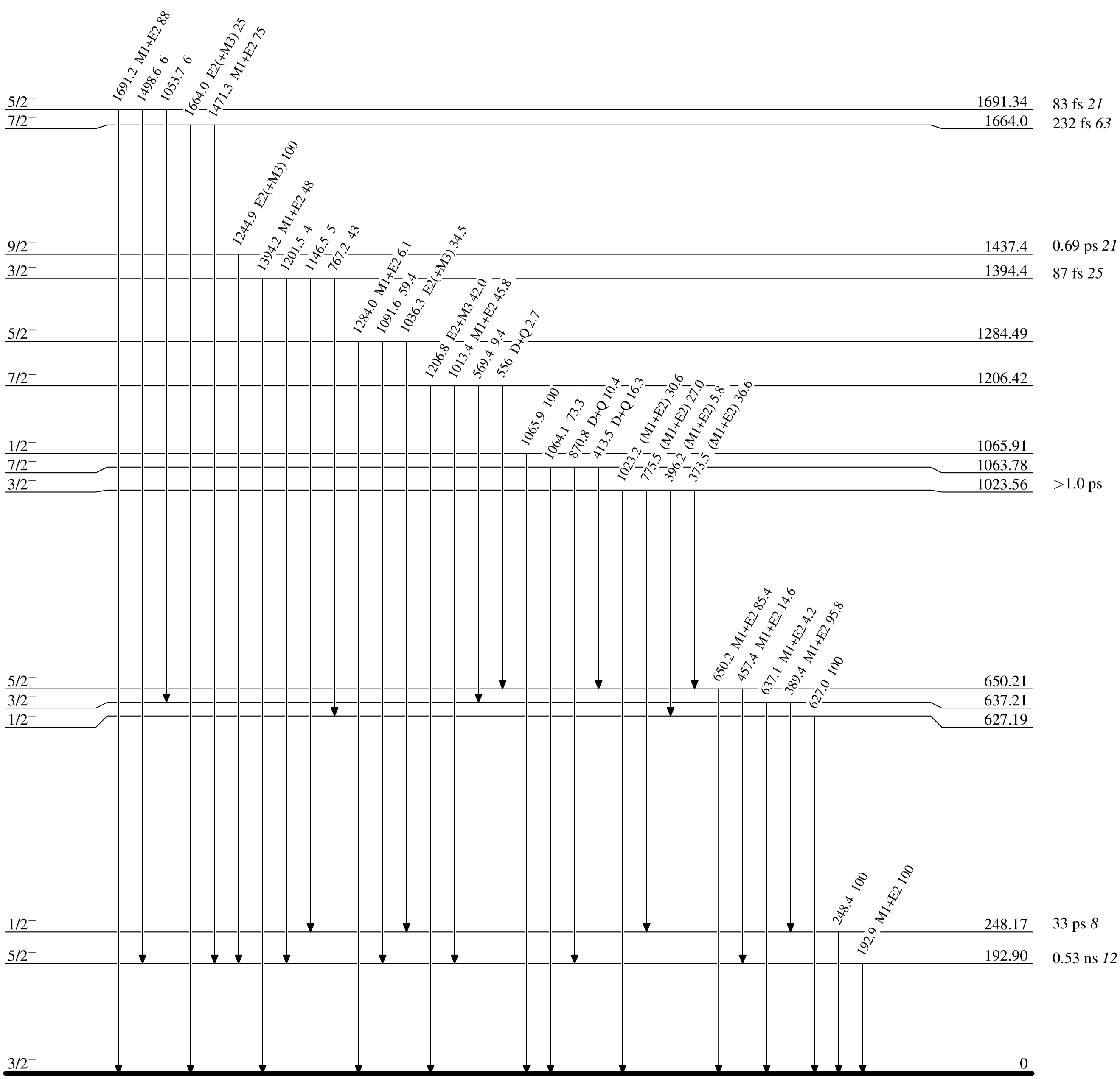


$^{63}_{30}Zn_{33}$

^{60}Ni(α,nγ), (HI,xnγ) 1979Mu08,1978Mu02,1998Si04

Level Scheme (continued)

Intensities: % photon branching from each level



$^{63}_{30}Zn_{33}$