Coulomb excitation 1992Fa01,1992Th04,1996Br09

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 109, 1103 (2008)	1-Mar-2008

Other measurements: 1963Yo09, 1970Ka45, 1972Er04, 1973Be40, 1974Wo01, 1974Sh12, 1972Do01, 1974Ke04, 1977Ke06, 1977Wo03, 1978Mc02, 1983Hu01, 1986Do13, 1992Br07, 1994OsZZ (and 1994KuZY), 1996Fa21, 1998Fa15.

Model-dependent deformation parameters deduced from Coulomb excitation: see 1970Ap03, 1972Er04, 1972Yu03, 1973Be40, 1973He28, 1975Le22, 1977Fi01.

1998Fa15: (^{58}Ni,^{58}Ni′γ), E=240 MeV; GASP spectrometer, two position-sensitive parallel-plate avalanche detectors; measured Eγ, γ(θ) and γγ coin gated by scattered projectiles.

1996Br09: (^{58}Ni,^{58}Ni′γ), E=165, 210, 225 MeV; measured γ(θ,H,T) In polarized Gd (IMPAC technique); deduced g-factors.

1996Fa21: (^{58}Ni,^{58}Ni′γ), E=225 MeV; one high resolution Ge detector and circular segmented Si detector, all surrounded by the Heidelberg Darmstadt Crystal Ball spectrometer array of 160 NaI detectors, operated In coincidence with Ge and Si detectors. Measured Eγ, γγ coin.

1994OsZZ: (^{74}Ge,^{74}Ge′γ), E=295 MeV; (^{58}Ni,^{58}Ni′γ), E=235 MeV; four Ge-BGO γ spectrometers; measured Eγ, Iγ; observed g.s. band to 16^+ state, γ band to 10^+ state, and candidate for γγ vibrational state; data analysis performed using GOSIA code. See also 1994KuZY.

1992Br07: (^{58}Ni,^{58}Ni′γ), E=210 MeV; parallel-plate avalanche counter (for backscattered projectiles), four Ge detectors; Gd ferromagnetic host; measured Eγ, Iγ(θ,H,t); deduced g-factors.

1992Fa01: (^{16}O,^{16}Oγ), E=57 MeV; (^{32}S,^{32}S′γ), E=115, 120 MeV; (^{58}Ni,^{58}Ni′γ), E=221 MeV; E(beam) At center of 96% ^{166}Er target was 56, 112, 117, 214 MeV, respectively. Two parallel-plate avalanche detectors, annular surface-barrier detector, four Ge detectors. Measured Eγ, Iγ and γ(θ), gated with scattered projectiles.

1992Th04: (^{58}Ni,^{58}Ni′γ), E=227 MeV; 96.24% ^{166}Er target, Ni backing; Measured lifetimes using the Recoil Distance Method (RDM).

1986Do13: ^{166}Er(^{58}Ni,^{58}Ni′γ), E=160, 200 MeV; HPGE detector; measured g-factors using transient field technique.

1983Hu01: ^{166}Er(α,α′γ), E=12.5 MeV; ^{166}Er(^{16}O,^{16}Oγ), E(^{16}O)=48 MeV; measured particle-γ coincidence σ, inelastic σ,Ge(Li) and silicon surface-barrier detectors.

1978Mc02: ^{166}Er(α,α′γ), E=14 MeV; measured Iγ, Eγ, γ(θ);Ge(Li).

1977Wo03: ^{166}Er(α,α′γ), E=11.5-12 MeV.

1977Ke06: ^{166}Er(^{56}Fe,^{56}Fe), (^{84}Kr,^{84}Kr′); E(^{56}Fe)=232 MeV, E(^{84}Kr)=348 MeV; measured Eγ (Ge(Li)).

1978Mc02 proposed a 2^+ level at 1159 keV and deexcited by 1159γ, 1078γ, 373γ. These γ′s probably arise from an impurity, based on their absence in the (n,n′γ) reaction study in 1981Bo40.

^{166}Er Levels

Values for Q have been estimated by the evaluator from the static (diagonal) matrix elements In table 3 of 1992Fa01 using the relation Q= <J M(E2) J> x $[16\pi\ J(2J-1)/(5(2J+1)(2J+3)(J+1))]^{1/2}$, unless noted to the contrary. They are not included In Adopted Levels.

E(level)[†]	J^{π}[‡]	$T_{1/2}$	Comments
0.0[#]	0^+		
80.574[#]	2^+	1.86 ns *5*	B(E2)↑=5.77 *5* Q=−1.77 *+14−9* based on diagonal matrix element. $T_{1/2}$: from B(E2)↑ and adopted transition properties. B(E2)↑: From an unweighted average of 5.69 *16* (1970Ka45); 5.76 *10* (1972Er04); 5.65 *5* (1973Be40); 5.85 *4* (1974Wo01); 5.91 *3* (1977Fi01). Other: 5.2 *5* (1992Fa01). static matrix element: <2^+ M(E2) 2+> =−2.33 *+19−12* (1992Fa01).
264.98[#]	4^+	120 ps *7*	g=0.297 *13* (1986Do13) Q=−1.60 *+26−12* based on diagonal matrix element. g-factor from transient field IPAC: +0.297 *13* (1986Do13), 0.285 *20* (1996Br09). static matrix element: <4^+ M(E2) 4+> =−2.12 *+34−16* (1992Fa01). E4 matrix element=0.06 *+12−18* (1972Er04); 0.32 *16* (1973Be40); 0.22 *+11−16*(1974Wo01);

Continued on next page (footnotes at end of table)

Coulomb excitation 1992Fa01,1992Th04,1996Br09 (continued)

^{166}Er Levels (continued)

E(level)†	Jπ‡	$T_{1/2}$	Comments
			0.31 +*9*−*10* (1974Sh12); 0.24 *7* (1977Fi01). $T_{1/2}$: from B(E2) and adopted transition properties.
545.44#	6+	15.0 ps *8*	g=+0.287 *15* (1996Br09) Q=−2.81 +*17*−*14* based on diagonal matrix element. g-factor: method, transient field. other: 0.259 *30* (1986Do13) from g-factor/g-factor(265)=0.85 *9*, g-factor(265)=+0.305 *15*. static matrix element: <6+ M(E2) 6+> =−4.03 +*25*−*20* (1992Fa01). $T_{1/2}$: from RDM (1992Th04); 17.7 ps +*10*−*14* from B(E2) and adopted transition properties.
785.89@	2+	3.12 ps *10*	g=+0.371 *24* (1996Br09) Q=2.18 *30* (1983Hu01) B(E2)↑=0.140 *4* other Q: +2.25 +*13*−*11* based on diagonal matrix element. g-factor: method, transient field. other: 0.271 *44* (1986Do13) from g-factor/g-factor(265)=0.89 *14*, g-factor(265)=+0.305 *15*. static matrix element: <2+ M(E2) 2+> =+2.97 +*17*−*15* (1992Fa01). $T_{1/2}$: from B(E2)↑=0.140 *4* and adopted transition properties. Other value: 4.0 ps *4* from RDM (1992Th04). B(E2)(785.9γ)/B(E2)(705.3γ)=0.544 *15* (1983Hu01). B(E2)↑: Weighted average of 0.140 *8* (1978Mc02), 0.134 *9* (1972Do01), 0.142 *5* (1973Be40), and 0.140 *15* (1992Fa01) from <$2+_{\gamma}$ M(E2) $0+_{g}$> =+0.372 *19*. Others: 0.176 *8* (1977Wo03), 0.19 *4* (1963Yo09).
859.4@	3+	4.5 ps *8*	$T_{1/2}$: from B(E2)(594γ) and adopted transition properties.
911.18#	8+	4.12 ps *15*	g=+0.278 *22* (1996Br09) Q=−3.05 +*15*−*30* based on diagonal matrix element. g-factor: method, transient field. other: 0.229 *41* (1986Do13) from g-factor/g-factor(265)=0.75 *13*, g-factor(265)=+0.305 *15*. static matrix element: <8+ M(E2) 8+> =−4.74 +*24*−*47* (1992Fa01). $T_{1/2}$: weighted average of 4.2 ps *3* (Doppler-broadened lineshape) and 4.7 ps *4* (RDM) (1977Ke06), 3.88 ps *21* RDM (1992Th04); 4.2 ps *3* from B(E2) and adopted transition properties.
956.20@	4+	3.5 ps *2*	Q=−1.08 +*13*−*6* based on diagonal matrix element. static matrix element: <4+ M(E2) 4+> =−1.43 +*17*−*8* (1992Fa01). $T_{1/2}$: weighted average of 3.6 ps *3* from RDM (1992Th04) and 3.4 ps *2* from B(E2) and adopted γ properties.
1075.3@ *3*	5+	2.7 ps *3*	$T_{1/2}$: from measured B(E2) for 530γ and 810γ and adopted transition properties.
1216.0@ *3*	6+	4.4 ps *3*	$T_{1/2}$: from RDM (1992Th04). The unweighted average of 3.5 ps *4*, 4.4 ps *4*, 4.6 ps *5* from B(E2)(260γ), B(E2)(671γ), B(E2)(951γ), respectively, and adopted transition properties is 4.2 ps *3*. Q=−2.57 +*13*−*15* based on diagonal matrix element. static matrix element: <6+ M(E2) 6+> =−3.69 +*18*−*22* (1992Fa01).
1350#	10+	1.62 ps *7*	g=+0.28 *4* (1996Br09) Q=−4.1 +*3*−*6* based on diagonal matrix element. g-factor: method, transient field. other: 0.20 *7* (1986Do13) from g-factor/g-factor(265)=0.64 *24*, g-factor(265)=+0.305 *14*. static matrix element: <10+ M(E2) 10+> =−6.8 +*5*−*10* (1992Fa01). $T_{1/2}$: weighted average of 1.59 ps *8* from RDM (1992Th04) and 1.72 ps *14* from B(E2) and adopted transition properties. others: 1.7 ps *2* (Doppler-broadened lineshape) and 1.6 ps *3* (recoil distance method) (1977Ke06).
1376.4@	7+	4.9 ps *9*	$T_{1/2}$: from B(E2)(301γ) and adopted transition properties. Other values: 5.0 ps *12* from B(E2)(831γ), 8.5 ps *23* from B(E2)(465γ).
1514	3−		B(E3)↑=0.061 *10* (1978Mc02)
1528	2+	45 fs *6*	B(E2)↑=0.018 *2* (1978Mc02) $T_{1/2}$: from measured B(E2) and adopted transition properties.
1555.8@ *4*	8+	3.7 ps *3*	$T_{1/2}$: from RDM (1992Th04). 3.2 ps *3* from B(E2)(340γ), 3.2 ps *4* from B(E2)(645γ) and

Continued on next page (footnotes at end of table)

Coulomb excitation 1992Fa01,1992Th04,1996Br09 (continued)

^{166}Er Levels (continued)

E(level)[†]	J^{π}[‡]	$T_{1/2}$	Comments
			4.0 ps +9−5 from B(E2)(1010γ) and adopted transition properties if 206.0 branch is not significant. Q=−3.17 +28−22 based on diagonal matrix element. static matrix element: <8$^+$ M(E2) 8+> =−4.92 +44−34 (1992Fa01).
1721	(3$^-$)		B(E3)↑=0.032 5 (1978Mc02)
1751.1[@] 5	9$^+$	2.4 ps 5	$T_{1/2}$: from B(E2)(375γ) and adopted γ properties.
1847[#]	12$^+$	0.91 ps 5	$T_{1/2}$: weighted average of 0.90 ps 8 (1977Ke06) and 0.92 ps 6 from RDM (1992Th04). 0.94 ps 8 from B(E2) and adopted transition properties.
1942.9 11	(0$^+$)		J^{π}: Possible K^{π}=0$^+$, γγ bandhead.
1964.6[@] 4	10$^+$	1.78 ps 17	$T_{1/2}$: weighted average of 1.73 ps 21 from RDM (1992Th04) and 1.86 ps 26 from B(E2)(409γ) and adopted transition properties. other value: 1.7 ps +4−3 from B(E2)(1054γ).
1977.8 7	(4$^+$)	2.2 ps +11−9	J^{π}: Possible K^{π}=4$^+$, γγ bandhead. $T_{1/2}$: from B(E2)(1192γ) and adopted transition properties assuming 903γ branch is negligible. B(E2)↑(786 to 1978)=B(E2)↑(g.s. to 786)x 0.16 12 (1994OsZZ)= 0.022 17 if B(E2)↑(g.s. to 786)=0.140 4.
1986.1 8	(4$^+$)		
2028.2[&] 7	(4$^+$)	0.33 ps 12	$T_{1/2}$: from B(E2)(1243γ) and adopted transition properties, assuming 1070 branch is negligible.
2101.6	(4$^+$)	0.27 ps 19	E(level): level reported by 1994OsZZ only. 1996Fa21 report No evidence for the deexciting transitions reported by 1994OsZZ In a study using the same beam species and similar beam energy. However, level is known from an ε decay study. J^{π}: candidate for two-phonon (γγ vibration) state (1994OsZZ). B(E2)↑(786 to 2102)=0.47 35 x B(E2)↑(g.s. to 786)(1994OsZZ)= 0.07 5 if B(E2)↑(786 level)=0.140 4. $T_{1/2}$: from B(E2)(1316γ) and adopted transition properties assuming negligible 1145γ branch.
2155.8 8	(6$^+$)		
2260.3[&] 8	(6$^+$)		
2389.6[#] 6	14$^+$	0.55 ps 7	$T_{1/2}$: from RDM (1992Th04). Other value: 0.52 +11−5 ps from B(E2) and adopted transition properties.
2429.6[@] 5	12$^+$	1.18 ps 21	$T_{1/2}$: from RDM (1992Th04). Other datum: 1.8 +7−4 ps from B(E2)(465γ) if 1081γ is negligible.
2574.0[&] 11	(8$^+$)		
2968.8[#] 7	16$^+$	0.49 ps 27	$T_{1/2}$: from B(E2) an adopted transition properties.
3577?[#]	18$^+$		E(level): from fig. 1 of 1998Fa15; justification for value is unknown.

[†] From least-squares adjustment of Eγ, except as noted, assuming Δ(Eγ)=0.3 keV for Eγ data quoted to one decimal place and 1 keV for for all other data.
[‡] From Adopted Levels.
[#] Band(A): g.s. band.
[@] Band(B): γ band.
[&] Band(C): possible K^{π}=4$^+$, γγ vibration band.

Coulomb excitation 1992Fa01,1992Th04,1996Br09 (continued)

$\gamma(^{166}Er)$

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ	α[d]	Comments
80.574	2^+	80.6	100	0.0	0^+	E2		6.77	<4+$_g$ M(E2) 2+$_g$> =+3.86 *12* (1992Fa01).
264.98	4^+	184.4	100	80.574	2^+	E2		0.331	B(E2)↓=1.66 *10* B(E2)↓: from <4+$_g$ M(E2) 2+$_g$> =+3.86 *12* (1992Fa01).
545.44	6^+	280.5	100	264.98	4^+	E2		0.0848	B(E2)↓=1.70 *+14−10* B(E2)↓: from <6+$_g$ M(E2) 4+$_g$> =+4.70 *+19−14* (1992Fa01).
785.89	2^+	521.0	2.1	264.98	4^+	E2		0.01480	B(E2)↓=0.0052 *+17−14* B(E2)↓: from <2+$_\gamma$ M(E2) 4+$_g$> =+0.161 *+26−22* (1992Fa01).
		705.3	100	80.574	2^+	E2+M1	−19 *+9−38*	0.011 *4*	B(E2)↓=0.054 *5* B(E2)↓: from <2+$_\gamma$ M(E2) 2+$_g$> =+0.518 *26* (1992Fa01). A_2=−0.24 *4*, A_4=−0.46 *7* and A_2=−0.24 *9*, A_4=−0.40 *12* (1972Do01). δ: from 1972Do01. Others: −38 *+24−INFINITY*Y (1972Do01);≥25 (1978Mc02).
		785.9	88	0.0	0^+	E2		0.00561	B(E2)↓=0.028 *3* B(E2)↓: from <2+$_\gamma$ M(E2) 0+$_g$> =+0.372 *19* (1992Fa01). Iγ(786γ)/Iγ(705γ)=0.85 *4* and 80 *5* (1972Do01).
859.4	3^+	73.4[b]	0.04	785.89	2^+				
		594.4	16.5	264.98	4^+				B(E2)↓=0.026 *5* B(E2)↓: from <3+$_\gamma$ M(E2) 4+$_g$> =−0.43 *4* (1992Fa01).
		778.8	100	80.574	2^+				B(E2)↓=0.018 *+5−4* B(E2)↓: from <3+$_\gamma$ M(E2) 2+$_g$> =−0.35 *+5−4* (1992Fa01).
911.18	8^+	366.1[@] *5*	100	545.44	6^+	E2		0.0384	B(E2)↓=1.99 *14* B(E2)↓: from <8+$_g$ M(E2) 6+$_g$> =+5.81 *20* (1992Fa01).
956.20	4^+	97.0[b]	1.99	859.4	3^+				I_γ: this value appears to Be an order of magnitude too large; evaluator suspects a typographical error In 1992Fa01.
		170.3	1.08	785.89	2^+				B(E2)↓=0.75 *8* B(E2)↓: from <4+$_\gamma$ M(E2) 2+$_\gamma$> =+2.60 *13* (1992Fa01).
		410.7	1.38	545.44	6^+				B(E2)↓=0.0118 *+12−30* B(E2)↓: from <4+$_\gamma$ M(E2) 6+$_g$> =+0.326 *+16−41* (1992Fa01).
		691.2	100	264.98	4^+	D+Q	−3.3 *+12−30*		B(E2)↓=0.059 *6* B(E2)↓: from <4+$_\gamma$ M(E2) 4+$_g$> =+0.727 *36* (1992Fa01). A_2=−0.47 *6*, A_4=−0.55 *9* (1972Do01). δ: from 1972Do01.
		875.64	57	80.574	2^+				B(E2)↓=0.0110 *11* B(E2)↓: from <4+$_\gamma$ M(E2) 2+$_g$> =+0.315 *16* (1992Fa01). Iγ(876γ)/Iγ(691γ)=0.53 *5* (1972Do01). A_2=+0.51 *11*, A_4=−0.43 *19* (1972Do01).

Continued on next page (footnotes at end of table)

Coulomb excitation 1992Fa01,1992Th04,1996Br09 (continued)

$\gamma(^{166}Er)$ (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[‡]	E_f	J^π_f	Comments
1075.3	5^+	119.1[b]	0.39	956.20	4^+	
		216.0	4.32	859.4	3^+	B(E2)↓=1.6 *+9−4* B(E2)↓: from <5+$_\gamma$ M(E2) 3+$_\gamma$> =+4.20 *+12−5* (1992Fa01).
		529.8	15.6	545.44	6^+	B(E2)↓=0.066 *+9−12* B(E2)↓: from <5+$_\gamma$ M(E2) 6+$_g$> =−0.85 *+6−8* (1992Fa01).
		810.3	100	264.98	4^+	B(E2)↓=0.050 *8* B(E2)↓: from <5+$_\gamma$ M(E2) 4+$_g$> =−0.74 *6* (1992Fa01).
1216.0	6^+	140.7[b]	0.73	1075.3	5^+	
		259.7	24.8	956.20	4^+	B(E2)↓=1.52 *15* B(E2)↓: from <6+$_\gamma$ M(E2) 4+$_\gamma$> =+4.44 *20* (1992Fa01).
		304.7		911.18	8^+	B(E2)↓≈0.008 B(E2)↓: from <6+$_\gamma$ M(E2) 8+$_g$> =+0.33 *+31−30* (1992Fa01).
		670.5	100	545.44	6^+	B(E2)↓=0.054 *5* B(E2)↓: from <6+$_\gamma$ M(E2) 6+$_g$> =+0.834 *42* (1992Fa01).
		951.0	49.1	264.98	4^+	B(E2)↓=0.0046 *4* B(E2)↓: from <6+$_\gamma$ M(E2) 4+$_g$> =+0.244 *12* (1992Fa01).
1350	10^+	438.5[@] *5*	100	911.18	8^+	B(E2)↓=1.99 *16* B(E2)↓: from <10+$_g$ M(E2) 8+$_g$> =+6.47 *25* (1992Fa01).
1376.4	7^+	301.0		1075.3	5^+	B(E2)↓=1.18 *22* B(E2)↓: from <7+$_\gamma$ M(E2) 5+$_\gamma$> =+4.2 *4* (1992Fa01).
		464.8		911.18	8^+	B(E2)↓=0.025 *7* B(E2)↓: from <7+$_\gamma$ M(E2) 8+$_g$> =−0.61 *+9−8* (1992Fa01).
		830.6		545.44	6^+	B(E2)↓=0.018 *4* B(E2)↓: from <7+$_\gamma$ M(E2) 6+$_g$> =−0.52 *6* (1992Fa01).
1514	3^-	558[c]		956.20	4^+	
		655[c]		859.4	3^+	
		728[c]		785.89	2^+	
1528	2^+	1528[c]		0.0	0^+	
1555.8	8^+	206.0		1350	10^+	B(E2)↓≈0.008 B(E2)↓: from <8+$_\gamma$ M(E2) 10+$_g$> =+0.37 *+18−30* (1992Fa01).
		339.7	86	1216.0	6^+	B(E2)↓=1.64 *16* B(E2)↓: from <8+$_\gamma$ M(E2) 6+$_\gamma$> =+5.28 *26* (1992Fa01).
		644.5	100	911.18	8^+	B(E2)↓=0.055 *5* B(E2)↓: from <8+$_\gamma$ M(E2) 8+$_g$> =+0.97 *5* (1992Fa01).
		1010.3	38	545.44	6^+	B(E2)↓=0.0027 *+3−6* B(E2)↓: from <8+$_\gamma$ M(E2) 6+$_g$> =+0.214 *+11−22* (1992Fa01).
1721	(3^-)	935[ce]		785.89	2^+	
1751.1	9^+	375.0	100	1376.4	7^+	B(E2)↓=1.57 *+28−21* B(E2)↓: from <9+$_\gamma$ M(E2) 7+$_\gamma$> =+5.5 *+5−4* (1992Fa01).
		401.9[b]	5	1350	10^+	
		840.2[b]	88	911.18	8^+	
1847	12^+	497.3[@] *5*	100	1350	10^+	B(E2)↓=1.96 *17* B(E2)↓: from <12+$_g$ M(E2) 10+$_g$> =+7.0 *3* (1992Fa01).
1942.9	(0^+)	1156.7[&] *4*	100	785.89	2^+	Iγ:Iγ(1243.4γ)=121 *29*:359 *50* (1996Fa21). $\gamma(\theta)$ is isotropic (1998Fa15).
1964.6	10^+	408.5	100	1555.8	8^+	B(E2)↓=1.52 *15* B(E2)↓: from <10+$_\gamma$ M(E2) 8+$_\gamma$> =+5.65 *28* (1992Fa01).
		614.3[b]	28	1350	10^+	
		1053.7	62	911.18	8^+	B(E2)↓=0.0082 *+11−17* B(E2)↓: from <10+$_\gamma$ M(E2) 8+$_g$> =+0.416 *+27−44* (1992Fa01).
1977.8	(4^+)	903.1		1075.3	5^+	E_γ: from level energy difference In fig. 3 of 1994OsZZ.
		1021[a]		956.20	4^+	
		1119[&] *1*	29 *10*	859.4	3^+	Iγ(1119γ):Iγ(1191.6γ)=41 *15*:143 *36* (1996Fa21).

Continued on next page (footnotes at end of table)

Coulomb excitation 1992Fa01,1992Th04,1996Br09 (continued)

$\gamma(^{166}Er)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	Comments
1977.8	(4+)	1191.6[&] 4	100 25	785.89	2+		B(E2)↓=0.0049 +20−25 (1996Fa21) I_γ: see comment on 1119γ.
1986.1	(4+)	1127[a]		859.4	3+		
		1200[a]		785.89	2+		
2028.2	(4+)	1070[a]		956.20	4+		
		1169.7[&] 3	68 14	859.4	3+		Iγ(1169.7γ):Iγ(1243.4γ)=243 50:359 50 (1996Fa21).
		1243.4[&] 3	100 14	785.89	2+	Q	B(E2)↓=0.027 10 (1996Fa21) I_γ: see comment on 1169.7γ. Mult.: Q from preliminary γ(θ) data (1998Fa15).
2101.6	(4+)	1145.4[e]		956.20	4+		E_γ: from level energy difference In fig. 3 of 1994OsZZ.
		1242.2		859.4	3+		E_γ: from level energy difference In fig. 3 of 1994OsZZ.
		1315.7		785.89	2+		E_γ: from level energy difference In fig. 3 of 1994OsZZ.
2155.8	(6+)	1080[a]		1075.3	5+		
		1200[a]		956.20	4+		
2260.3	(6+)	1185[a]		1075.3	5+		
		1304[a]		956.20	4+		
2389.6	14+	542.8	100	1847	12+		B(E2)↓=2.29 +23−49 B(E2)↓: from <14+$_g$ M(E2) 12+$_g$> =+8.15 +41−86 (1992Fa01).
2429.6	12+	465.0		1964.6	10+		B(E2)↓=1.4 +4−6 B(E2)↓: from <12+$_\gamma$ M(E2) 10+$_\gamma$> =+6.0 +8−12 (1992Fa01).
		1081.2		1350	10+		E_γ: from level energy difference In fig. 3 of 1994OsZZ.
2574.0	(8+)	1358[a]		1216.0	6+		
2968.8	16+	579.2		2389.6	14+		B(E2)↓=1.8 10 B(E2)↓: from <16+$_g$ M(E2) 14+$_g$> =+7.7 +20−22 (1992Fa01).

[†] From 1992Fa01, unless otherwise stated. Uncertainty unstated by authors.
[‡] Relative photon branching from level; from 1992Fa01, except As noted. values result from analysis of data using the code GOSIA.
[#] From Adopted Gammas, unless otherwise noted.
[@] From 1977Ke06.
[&] From 1996Fa21.
[a] From 1998Fa15. Uncertainty unstated by authors.
[b] Rounded-off value from Adopted Gammas. Transition shown in figure 5 of 1992Fa01.
[c] From 1978Mc02. Uncertainty unstated by authors.
[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.

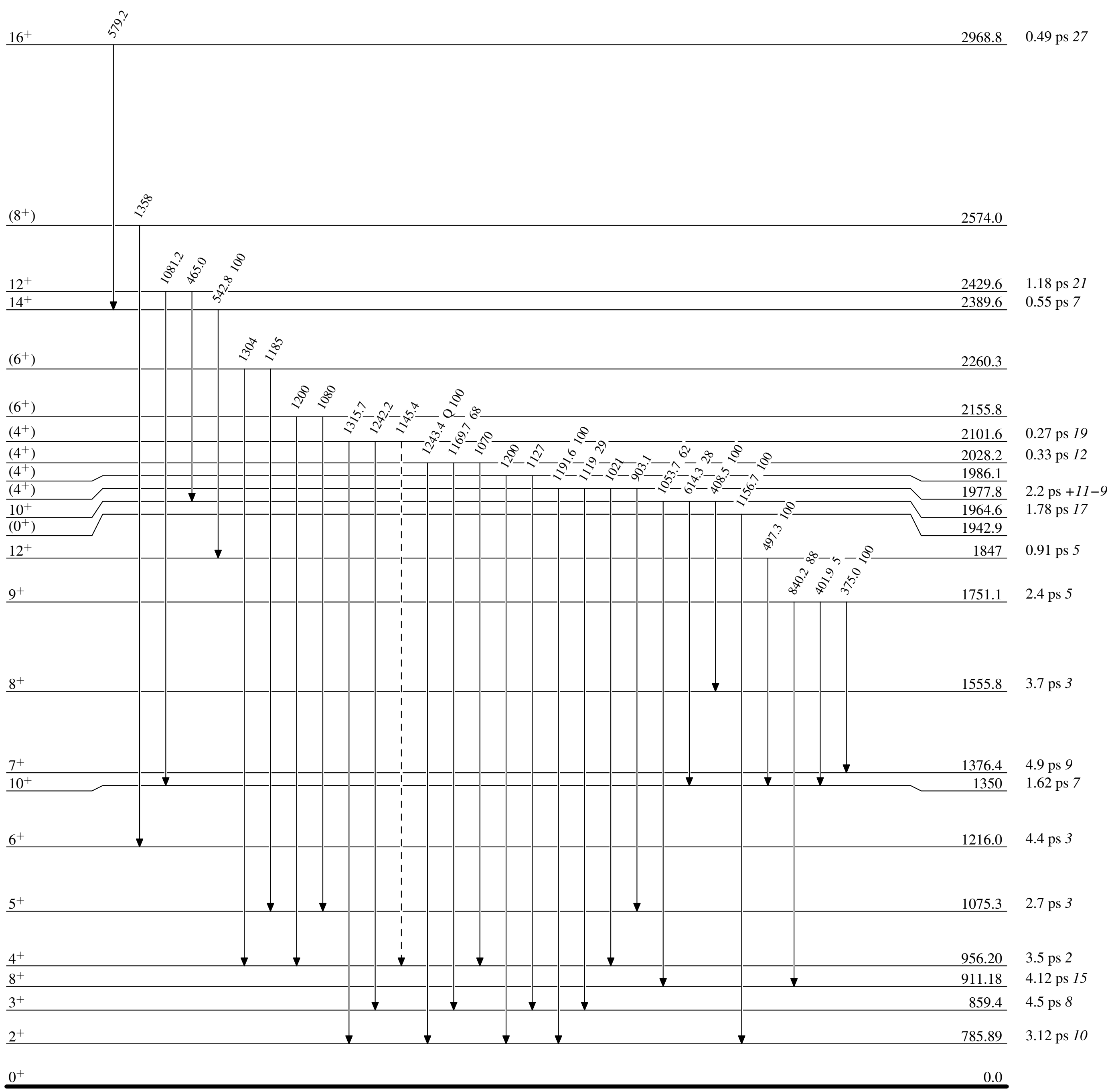
Coulomb excitation 1992Fa01,1992Th04,1996Br09

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)

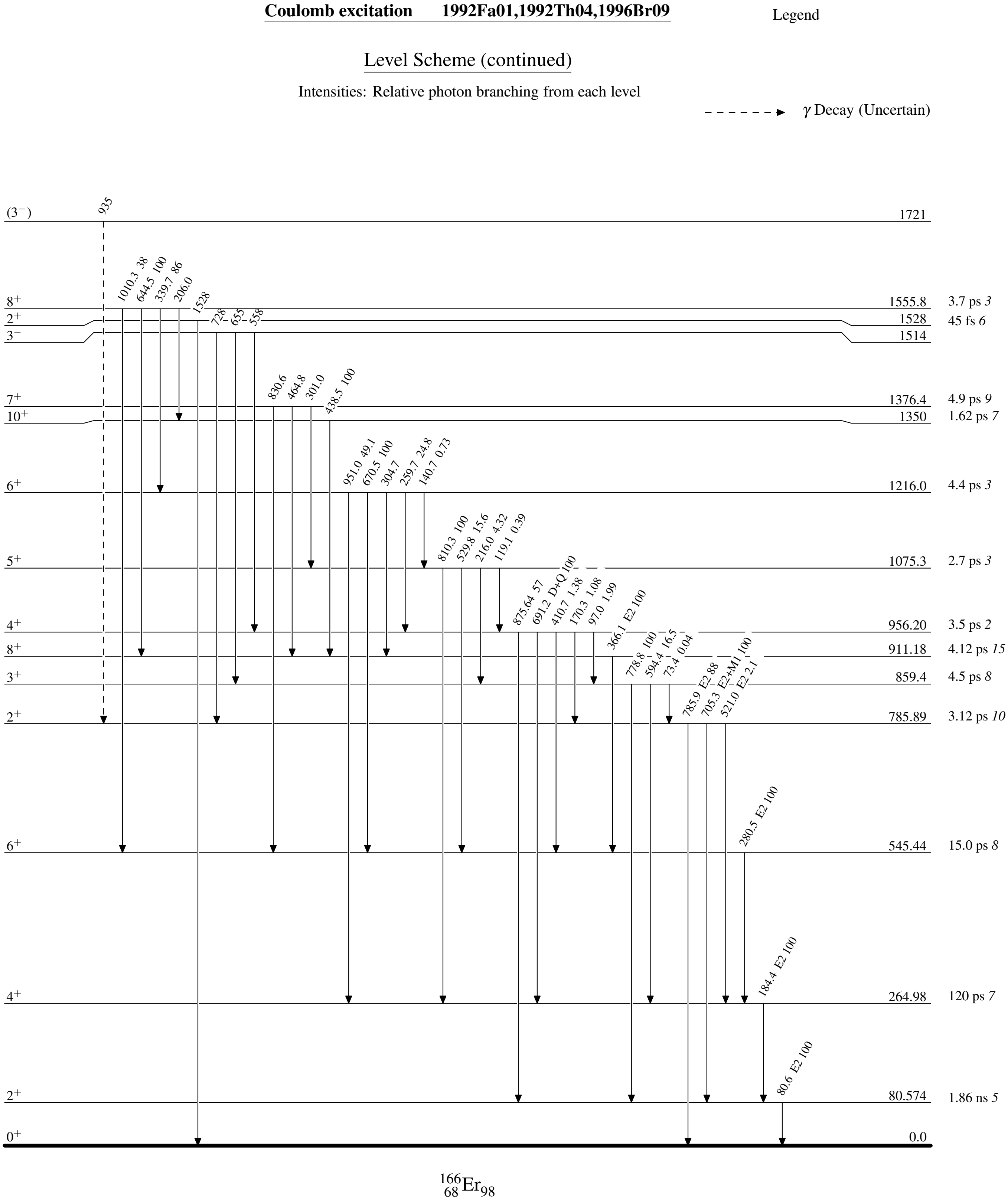


$^{166}_{68}Er_{98}$

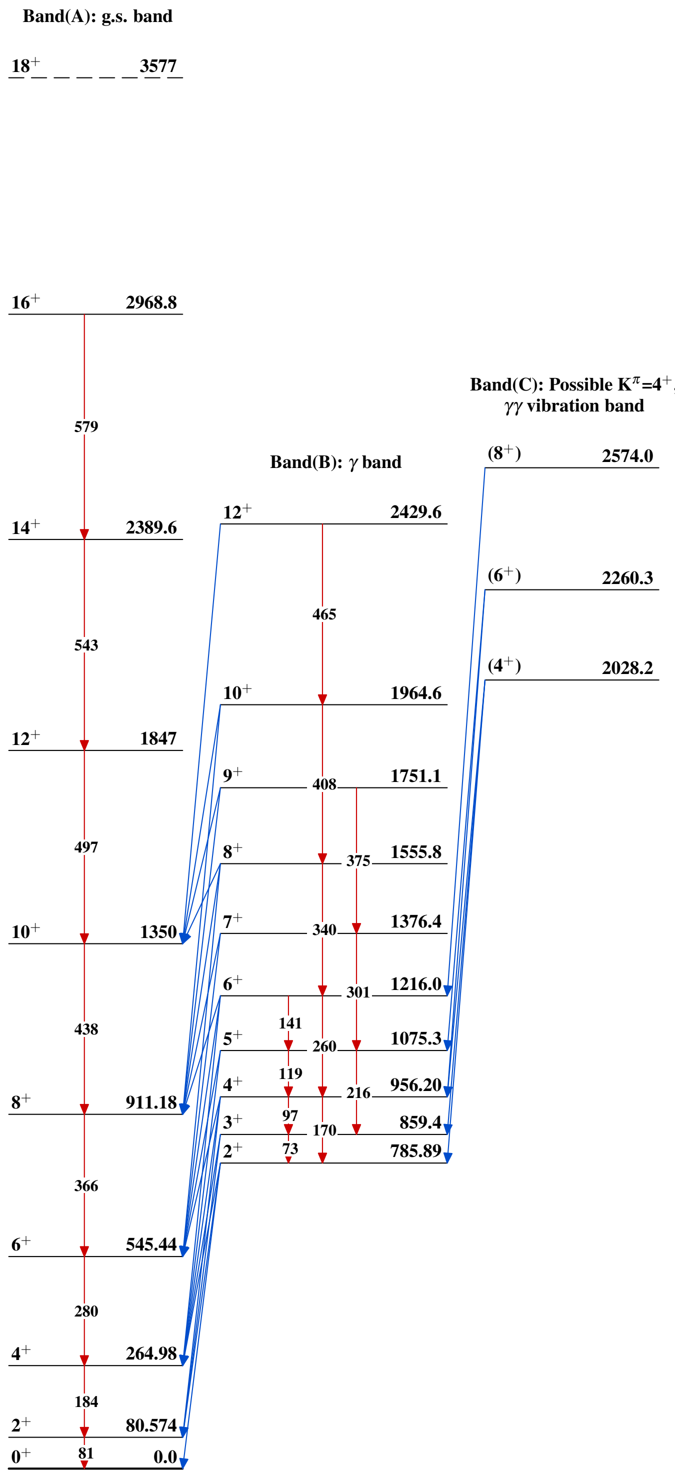
Coulomb excitation 1992Fa01,1992Th04,1996Br09

Level Scheme (continued)

Intensities: Relative photon branching from each level



Coulomb excitation 1992Fa01,1992Th04,1996Br09



$^{166}_{68}Er_{98}$