**(HI,xnγ) 1998Ne01,1991Me06,1986AgZZ**

History

| Type | Author | Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | Huang Xiaolong and Kang Mengxiao | NDS 121, 395 (2014) | 1-Mar-2014 |

1998Ne01: $^{192}$Os($^{9}$Be,6nγ) E=80 MeV. Measured Eγ, Iγ, γγ-coin, γγγ-coin, and DCO by using GAMMASPHERE array (36 Ge detectors).
1991Me06: $^{198}$Pt(α,7nγ) E=78 MeV; measured γγ-coin, Eγ, Iγ, and DCO ratio with six Compton-suppressed Ge detectors. Level structure is interpreted within framework of cranked shell model.
1986AgZZ: $^{198}$Pt(α,7nγ) E=78 MeV; measured Eγ, γγ-coin; compared experimental and calculated band crossing frequencies and alignments.
1978Me11: $^{198}$Pt(α,7nγ) E=31-57 MeV; measured Eγ, Iγ, γγ-coin, Ice, and ce(t).
1974Pr09: $^{194}$Pt(α,3nγ), $^{195}$Pt(α,4nγ) E=34-50 MeV; measured Eγ, Iγ, γγ-coin, and γ(θ).
Others: 1973PrZV, 1975PrZU.

## $^{195}$Hg Levels

For discussions of possible configurations, see 1986AgZZ and 1991Me06.

| E(level)† | Jπ‡ | $T_{1/2}$@ | E(level)† | Jπ‡ |
|---|---|---|---|---|
| 0.0# | 1/2−# | | 4196f | 39/2− |
| 176.1#a | 13/2+# | 41.6# h 8 | 4397 | 41/2+ |
| 547.3a 17 | 17/2+ | | 4519 | 43/2 |
| 848 | (15/2+) | | 4582 | |
| 1158.7a 19 | 21/2+ | | 4709e | 45/2− |
| 1461.3 19 | 19/2+ | | 4742c | 45/2+ |
| 1486 | (19/2+) | | 4802g | 43/2− |
| 1744.8b 20 | 21/2− | | 4808 | |
| 1866f | 23/2− | | 4901d 4 | 45/2+ |
| 1868.9a 21 | 25/2+ | | 4982 | 43/2+ |
| 1870.5b 22 | 25/2− | 1.48 ns 6 | 5137 | |
| 2082f | 27/2− | | 5176 | 43/2+ |
| 2171.6b 24 | 29/2− | | 5242 | |
| 2413.6c 24 | 29/2+ | | 5253 | |
| 2627f | 31/2− | | 5309 | 45/2+ |
| 2692c 3 | 33/2+ | ≤0.25 ns | 5379g | 47/2− |
| 2757a | (29/2+) | | 5400e | 49/2− |
| 2774b 3 | 33/2− | | 5411i | 47/2+ |
| 3160c 3 | 37/2+ | | 5445 | 53/2− |
| 3215 | 33/2+ | | 5489 | |
| 3264d | 33/2+ | | 5500 | |
| 3366f | 35/2− | | 5558?& | |
| 3402 | 35/2 | | 5591 | |
| 3505 | | | 5597 | |
| 3555b | 37/2− | | 5688i | 49/2+ |
| 3562d | 37/2+ | | 5749c | 49/2+ |
| 3699 | 37/2+ | | 5801 | |
| 3866 3 | 39/2 | | 5868 | |
| 3869c | 41/2+ | | 5893i | 51/2+ |
| 4080d | 41/2+ | | 5962 | |
| 4182e | 41/2− | | 6174 | |

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**(HI,xnγ) 1998Ne01,1991Me06,1986AgZZ (continued)**

$^{195}$Hg Levels (continued)

| E(level)[†] | Jπ[‡] | Comments |
|---|---|---|
| 6299[i] | 53/2+ | |
| 6327[e] | 53/2− | |
| 6496 | 55/2 | |
| 6651[i] | 55/2+ | |
| 6792 | 57/2 | |
| 7128[i] | 57/2+ | |
| 7188 | | |
| 7405 | 57/2− | |
| 7412 | 57/2− | |
| 7538[i] | 59/2+ | |
| 7745[h] | 59/2(−) | |
| 8010[i] | 61/2+ | |
| 8067[h] | 61/2(−) | |
| 8383[i] | 63/2+ | |
| 8456[h] | 63/2(−) | |
| 8892[h] | 65/2(−) | |
| 9331[h] | 67/2(−) | |
| 9785[h] | 69/2(−) | |
| 10221[h] | 71/2(−) | |
| v[j] | J | It is a complicated decay path, the main intensity flows going into the positive-parity levels (about 70%). Because the decay is highly fragmented it is not possible to link the dipole sequence to the lower-lying states.<br>Jπ: can not be determined. |
| 171.8+v[j] | J+1 | |
| 443.2+v[j] | J+2 | |
| 748.8+v[j] | J+3 | |

† From Eγ and level scheme using least-squares fit.
‡ From directional correlation ratios (Iγ(30°)/Iγ(90°)) determined from coincidence spectra and known pure stretched E2 transitions and band configuration analysis (1998Ne01,1991Me06), except as noted.
# From Adopted Levels.
@ From ce(t) measurements (1978Me11), except as noted.
& From 1991Me06.
[a] Band(A): Decoupled $i_{13/2}$ band. Signature α=+1/2. $i_{13/2}$ neutron Decoupled from oblate core (1991Me06).
[b] Band(B): coupled $i_{13/2}$ band. Signature α=−1/2 (1998Ne01,1991Me06).
[c] Band(C): signature α=+1/2 (1998Ne01).
[d] Band(D): signature α=+1/2 (1998Ne01).
[e] Band(E): signature α=+1/2 (1998Ne01).
[f] Band(F): signature α=−1/2 (1998Ne01).
[g] Band(G): signature α=−1/2 (1998Ne01).
[h] Band(H): Dipole sequence 1 π=(−) (1998Ne01). 70% feeds π=− parity Band, 30% branch to π=+ yrast sequence remains unobserved.
[i] Band(I): Dipole sequence 2 π=+ (1998Ne01). Equally feeds π=+, π=− Yrast states. 30% of decay not been observed.
[j] Band(J): dipole sequence 3 (1998Ne01). About 70% decay to π=+ states.

**(HI,xnγ) 1998Ne01,1991Me06,1986AgZZ (continued)**

## γ($^{195}$Hg)

All data are from 1998Ne01, except as noted.
Directional oriented correlation (DOC) ratios.
Iγ(30°)/Iγ(90°) are from 1998Ne01 and 1991Me06 and normalized to the average ratios for known pure E2 transitions.

| $E_\gamma$[#] | $I_\gamma$[‡] | $E_i$(level) | $J_i^\pi$ | $E_f$ | $J_f^\pi$ | Mult.[&] | α[b] | Comments |
|---|---|---|---|---|---|---|---|---|
| 89.6 *4* | 7 | 2171.6 | 29/2$^-$ | 2082 | 27/2$^-$ | | | $I_\gamma$: from 1991Me06. |
| 103.2 *7* | 6 *2* | 5411 | 47/2$^+$ | 5309 | 45/2$^+$ | | | |
| 122.2 *2* | 26 *4* | 1866 | 23/2$^-$ | 1744.8 | 21/2$^-$ | | | Iγ(30°)/Iγ(90°)=0.47 *7* (1998Ne01), 0.68 *7* (1991Me06).<br>γ(θ): $A_2$=+0.12 *12* (1986AgZZ). |
| 126.6 *5* | 87 *8* | 1870.5 | 25/2$^-$ | 1744.8 | 21/2$^-$ | E2 | 2.12 *5* | α(K)=0.459 *8*; α(L)=1.24 *3*; α(M)=0.324 *8*; α(N+..)=0.0938 *22*<br>Iγ(30°)/Iγ(90°)=0.94 *6* (1998Ne01), 1.0 *1* (1991Me06).<br>γ(θ): $A_2$=+0.50 *10* (1974Pr09). |
| 133.4 | 14 *3* | 5309 | 45/2$^+$ | 5176 | 43/2$^+$ | | | |
| 171.8 *5* | 16 *3* | 171.8+v | J+1 | v | J | | | Iγ(30°)/Iγ(90°)=0.55 *7* (1998Ne01). |
| 174.0 *8* | 5 *2* | 4982 | 43/2$^+$ | 4808 | | | | |
| [x]177.7 *8* | 4 *2* | | | | | | | Above 4079-keV level. |
| 196.7 *6* | 9 *3* | 6496 | 55/2 | 6299 | 53/2$^+$ | | | Iγ(30°)/Iγ(90°)=0.43 *8* (1998Ne01). |
| 205.9 *3* | 48 *5* | 5893 | 51/2$^+$ | 5688 | 49/2$^+$ | | | Iγ(30°)/Iγ(90°)=0.43 *8* (1998Ne01), 0.52 *7* (1991Me06). |
| 211.2 *2* | 24 *4* | 2082 | 27/2$^-$ | 1870.5 | 25/2$^-$ | | | Iγ(30°)/Iγ(90°)=0.91 *15* (1998Ne01), 1.1 *2* (1991Me06). |
| 215.6 *2* | 77 *8* | 2082 | 27/2$^-$ | 1866 | 23/2$^-$ | | | Iγ(30°)/Iγ(90°)=0.90 *12* (1998Ne01), 1.03 *8* (1991Me06).<br>γ(θ): $A_2$=+0.35 *15* (1986AgZZ). |
| 258.1 *2* | 18 *3* | 1744.8 | 21/2$^-$ | 1486 | (19/2$^+$) | | | Iγ(30°)/Iγ(90°)=0.48 *6* (1998Ne01), 0.51 *5* (1991Me06). |
| 271.5 *5* | 32 *5* | 443.2+v | J+2 | 171.8+v | J+1 | | | Iγ(30°)/Iγ(90°)=0.42 *6* (1998Ne01). |
| 271.5 *3* | 7 *2* | 5253 | | 4982 | 43/2$^+$ | | | Iγ(30°)/Iγ(90°)=0.35 *11* (1991Me06). |
| 276.4 *3* | 84 *11* | 5688 | 49/2$^+$ | 5411 | 47/2$^+$ | | | Iγ(30°)/Iγ(90°)=0.45 *6* (1998Ne01), 0.39 *4* (1991Me06). |
| 278.4 *1* | 425 *46* | 2692 | 33/2$^+$ | 2413.6 | 29/2$^+$ | E2 | 0.1334 | α(K)=0.0756 *11*; α(L)=0.0435 *7*; α(M)=0.01107 *16*; α(N+..)=0.00324 *5*<br>Iγ(30°)/Iγ(90°)=1.0 *1* (1998Ne01), 0.55 *5* (1991Me06).<br>γ(θ): $A_2$=+0.45 *15* (1974Pr09). |
| 283.4 *2* | 68 *6* | 1744.8 | 21/2$^-$ | 1461.3 | 19/2$^+$ | (E1) | 0.0318 | α(K)=0.0261 *4*; α(L)=0.00433 *7*; α(M)=0.001005 *15*; α(N+..)=0.000299 *5*<br>Iγ(30°)/Iγ(90°)=0.53 *5* (1998Ne01), 1.10 *8* (1991Me06).<br>Mult.: consistent with Iγ(283γ)-Iγ(914γ) cascade at Eα=34-50 MeV and I(γ+ce) balance about 1461 level; γ(θ) $A_2$=−0.15 *10* (1974Pr09). |
| 296.0 *7* | 9 *3* | 6792 | 57/2 | 6496 | 55/2 | | | Iγ(30°)/Iγ(90°)=0.42 *11* (1998Ne01). |
| 297.7 *4* | 10 *2* | 3562 | 37/2$^+$ | 3264 | 33/2$^+$ | | | Iγ(30°)/Iγ(90°)=0.92 *15* (1998Ne01). |
| 301.5 *8* | 4 *2* | 848 | (15/2$^+$) | 547.3 | 17/2$^+$ | | | |
| 301.5 *1* | 352 *29* | 2171.6 | 29/2$^-$ | 1870.5 | 25/2$^-$ | E2 | 0.1049 | α(K)=0.0623 *9*; α(L)=0.0321 *5*; α(M)=0.00813 *12*; α(N+..)=0.00238 *4*<br>Iγ(30°)/Iγ(90°)=1.07 *9* (1998Ne01), 1.04 *8* (1991Me06).<br>γ(θ): $A_2$=+0.45 *10* (1974Pr09). |
| 305.4[†c] *3* | 9[†] | 5558? | | 5253 | | | | |

Continued on next page (footnotes at end of table)

**(HI,xnγ) 1998Ne01,1991Me06,1986AgZZ (continued)**

γ($^{195}$Hg) (continued)

| $E_\gamma$[#] | $I_\gamma$[‡] | $E_i$(level) | $J_i^\pi$ | $E_f$ | $J_f^\pi$ | Mult.[&] | α[b] | Comments |
|---|---|---|---|---|---|---|---|---|
| 305.7 *5* | 31 *5* | 748.8+v | J+3 | 443.2+v | J+2 | | | Iγ(30°)/Iγ(90°)=0.42 *5* (1998Ne01). |
| 322.6 *6* | 19 *3* | 8067 | 61/2$^{(-)}$ | 7745 | 59/2$^{(-)}$ | | | Iγ(30°)/Iγ(90°)=0.46 *9* (1998Ne01). |
| 332.7 *7* | 14 *3* | 7745 | 59/2$^{(-)}$ | 7412 | 57/2$^-$ | | | Iγ(30°)/Iγ(90°)=0.36 *9* (1998Ne01). |
| 335.4 *7* | 8 *3* | 7128 | 57/2$^+$ | 6792 | 57/2 | | | |
| 338.0 *7* | 8 *3* | 5591 | | 5253 | | | | Iγ(30°)/Iγ(90°)=0.3 *1* (1998Ne01). |
| 339.4 *6* | 20 *4* | 7745 | 59/2$^{(-)}$ | 7405 | 57/2$^-$ | | | Iγ(30°)/Iγ(90°)=0.43 *8* (1998Ne01). |
| 344.5 *8* | 2 *1* | 5597 | | 5253 | | | | |
| 347.7 *2* | 18 *2* | 3562 | 37/2$^+$ | 3215 | 33/2$^+$ | | | Iγ(30°)/Iγ(90°)=1.0 *2* (1998Ne01). |
| 352.0 *4* | 31 *4* | 6651 | 55/2$^+$ | 6299 | 53/2$^+$ | M1[a] | 0.234 | α(K)=0.192 *3*; α(L)=0.0319 *5*; α(M)=0.00742 *11*; α(N+..)=0.00224 *4*<br>Iγ(30°)/Iγ(90°)=0.38 *8* (1998Ne01). |
| [x]356.7 | 12 *3* | | | | | | | Above 4710-keV level. |
| 361.6 *7* | 8 *2* | 3866 | 39/2 | 3505 | | | | |
| 371.0 *1* | 1000 *50* | 547.3 | 17/2$^+$ | 176.1 | 13/2$^+$ | E2 | 0.0581 | α(K)=0.0381 *6*; α(L)=0.01508 *22*; α(M)=0.00378 *6*; α(N+..)=0.001111 *16*<br>Iγ(30°)/Iγ(90°)=1.0 (1998Ne01,1991Me06).<br>γ(θ): $A_2$=+0.41 *6* (1974Pr09). |
| 378.6[c] *8* | 9 *3* | 5688 | 49/2$^+$ | 5309 | 45/2$^+$ | | | |
| [x]381.5 | 12 *4* | | | | | | | Above 1844-keV level. |
| 389.2 *5* | 19 *4* | 8456 | 63/2$^{(-)}$ | 8067 | 61/2$^{(-)}$ | | | Iγ(30°)/Iγ(90°)=0.33 *9* (1998Ne01). |
| 403.4 *2* | 93 *8* | 3562 | 37/2$^+$ | 3160 | 37/2$^+$ | | | Iγ(30°)/Iγ(90°)=1.02 *7* (1998Ne01), 1.08 *8* (1991Me06). |
| 406.5 *3* | 48 *5* | 6299 | 53/2$^+$ | 5893 | 51/2$^+$ | M1[a] | 0.1588 | α(K)=0.1306 *19*; α(L)=0.0216 *3*; α(M)=0.00502 *8*; α(N+..)=0.001517 *22*<br>Iγ(30°)/Iγ(90°)=0.39 *8* (1998Ne01), 0.6 *2* (1991Me06). |
| 409.2 *8* | 7 *2* | 7538 | 59/2$^+$ | 7128 | 57/2$^+$ | | | Iγ(30°)/Iγ(90°)=0.65 *15* (1998Ne01). |
| 434.6 *5* | 10 *3* | 3699 | 37/2$^+$ | 3264 | 33/2$^+$ | | | |
| 435.4 *6* | 11 *3* | 8892 | 65/2$^{(-)}$ | 8456 | 63/2$^{(-)}$ | | | Iγ(30°)/Iγ(90°)=0.39 *12* (1998Ne01). |
| 439.1 *8* | 6 *2* | 9331 | 67/2$^{(-)}$ | 8892 | 65/2$^{(-)}$ | | | |
| 444.3 *8* | 3 *1* | 5253 | | 4808 | | | | |
| 454.0 *8* | 5 *2* | 9785 | 69/2$^{(-)}$ | 9331 | 67/2$^{(-)}$ | | | |
| 463.3 *3* | 57 *6* | 3866 | 39/2 | 3402 | 35/2 | | | Iγ(30°)/Iγ(90°)=0.92 *9* (1991Ne01), 1.15 *12* (1991Me06). |
| 467.7 *1* | 324 *28* | 3160 | 37/2$^+$ | 2692 | 33/2$^+$ | E2, Q | | Iγ(30°)/Iγ(90°)=1.02 *8* (1998Ne01), 1.0 *1* (1991Me06). |
| 472.1 *8* | 5 *2* | 8010 | 61/2$^+$ | 7538 | 59/2$^+$ | | | |
| 476.9 *5* | 18 *3* | 7128 | 57/2$^+$ | 6651 | 55/2$^+$ | | | Iγ(30°)/Iγ(90°)=0.35 *6* (1998Ne01). |
| 481.3 *3* | 40 *4* | 5893 | 51/2$^+$ | 5411 | 47/2$^+$ | | | Iγ(30°)/Iγ(90°)=1.0 *1* (1998Ne01). |
| 484.4 *4* | 20 *4* | 3699 | 37/2$^+$ | 3215 | 33/2$^+$ | | | Iγ(30°)/Iγ(90°)=1.3 *3* (1998Ne01). |
| 491.5 *4* | 18 *3* | 5893 | 51/2$^+$ | 5400 | 49/2$^-$ | | | Iγ(30°)/Iγ(90°)=0.65 *13* (1998Ne01). |
| 517.4 *2* | 99 *8* | 4080 | 41/2$^+$ | 3562 | 37/2$^+$ | | | Iγ(30°)/Iγ(90°)=1.05 *8* (1998Ne01), 0.98 *8* (1991Me06). |
| 526.5 *2* | 262 *19* | 4709 | 45/2$^-$ | 4182 | 41/2$^-$ | | | Iγ(30°)/Iγ(90°)=1.07 *9* (1998Ne01), 0.97 *9* (1991Me06). |
| 544.2 *1* | 508 *39* | 2413.6 | 29/2$^+$ | 1868.9 | 25/2$^+$ | E2 | 0.0220 | α(K)=0.01625 *23*; α(L)=0.00438 *7*; α(M)=0.001070 *15*; α(N+..)=0.000317 *5*<br>Iγ(30°)/Iγ(90°)=1.1 *1* (1998Ne01), 1.02 *7* (1991Me06).<br>γ(θ): $A_2$=+0.3 *2* (1974Pr09). |
| 546.9 *2* | 62 *7* | 2627 | 31/2$^-$ | 2082 | 27/2$^-$ | | | Iγ(30°)/Iγ(90°)=0.9 *1* (1998Ne01), 1.08 *8* (1991Me06). |
| 555.7 *5* | 10 *3* | 5137 | | 4582 | | | | |
| 573.9 *3* | 26 *4* | 3264 | 33/2$^+$ | 2692 | 33/2$^+$ | | | Iγ(30°)/Iγ(90°) not given (1998Ne01,1991Me06). |

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**(HI,xnγ) 1998Ne01,1991Me06,1986AgZZ (continued)**

γ($^{195}$Hg) (continued)

| $E_\gamma$[#] | $I_\gamma$[‡] | $E_i$(level) | $J_i^\pi$ | $E_f$ | $J_f^\pi$ | Mult.[&] | α[b] | Comments |
|---|---|---|---|---|---|---|---|---|
| 576.8 *3* | 7 *2* | 5379 | 47/2$^-$ | 4802 | 43/2$^-$ | | | Iγ(30°)/Iγ(90°)=0.7 *2* (1991Me06). |
| 576.9 *7* | 9 *3* | 748.8+v | J+3 | 171.8+v | J+1 | | | |
| 586.1 *1* | 460 *45* | 1744.8 | 21/2$^-$ | 1158.7 | 21/2$^+$ | | | Iγ(30°)/Iγ(90°)=1.1 *1* (1998Ne01), 1.08 *8* (1991Me06).<br>γ(θ): $A_2$=+0.4 *1*; similar γ(θ) anisotropies observed for transitions between 21/2 states in $^{197}$Hg,$^{199}$Hg. |
| 602.2 *1* | 420 *28* | 2774 | 33/2$^-$ | 2171.6 | 29/2$^-$ | | | Iγ(30°)/Iγ(90°)=0.97 *6* (1998Ne01), 0.92 *7* (1991Me06). |
| 605.4 *3* | 20 *3* | 4802 | 43/2$^-$ | 4196 | 39/2$^-$ | (E2) | 0.01723 | α(K)=0.01300 *19*; α(L)=0.00322 *5*; α(M)=0.000781 *11*; α(N+..)=0.000232 *4*<br>Iγ(30°)/Iγ(90°)=0.96 *8* (1998Ne01,1991Me06). |
| 611.3[@] *1* | 1000 *50* | 1158.7 | 21/2$^+$ | 547.3 | 17/2$^+$ | E2 | 0.01686 | α(K)=0.01274 *18*; α(L)=0.00313 *5*; α(M)=0.000760 *11*; α(N+..)=0.000226 *4*<br>Iγ(30°)/Iγ(90°)=1.03 *5* (1998Ne01).<br>γ(θ): $A_2$=+0.47 *10* (1974Pr09). |
| 611.5 *4* | 25 *6* | 6299 | 53/2$^+$ | 5688 | 49/2$^+$ | | | |
| 626.7 *3* | 330 *27* | 4182 | 41/2$^-$ | 3555 | 37/2$^-$ | | | Iγ(30°)/Iγ(90°)=1.1 *1* (1998Ne01), 1.01 *9* (1991Me06). |
| 638.1 *2* | 15 *3* | 1486 | (19/2$^+$) | 848 | (15/2$^+$) | | | Iγ(30°)/Iγ(90°)=0.28 *8* (1998Ne01), 1.08 *15* (1991Me06). |
| 653.1 *2* | 71 *6* | 4519 | 43/2 | 3866 | 39/2 | | | Iγ(30°)/Iγ(90°)=0.98 *8* (1998Ne01), 0.92 *19* (1991Me06). |
| 654.5 *7* | 13 *3* | 8067 | 61/2$^{(-)}$ | 7412 | 57/2$^-$ | | | Iγ(30°)/Iγ(90°)=1.1 *2* (1998Ne01). |
| 661.5 *6* | 16 *4* | 8067 | 61/2$^{(-)}$ | 7405 | 57/2$^-$ | | | Iγ(30°)/Iγ(90°)=1.0 *2* (1998Ne01). |
| 663.1 *4* | 14 *4* | 5801 | | 5137 | | | | |
| 672.1 *5* | | 848 | (15/2$^+$) | 176.1 | 13/2$^+$ | | | Iγ(30°)/Iγ(90°)=0.46 *20* (1991Me06). |
| 685.1 *7* | 5 *2* | 6174 | | 5489 | | | | |
| 689.9 *7* | 6 *2* | 5591 | | 4901 | 45/2$^+$ | | | |
| 690.8 *2* | 113 *14* | 5400 | 49/2$^-$ | 4709 | 45/2$^-$ | | | Iγ(30°)/Iγ(90°)=1.08 *9* (1998Ne01), 0.95 *8* (1991Me06). |
| 696.0 *7* | 8 *2* | 5597 | | 4901 | 45/2$^+$ | | | |
| 697.2 *4* | 38 *6* | 4397 | 41/2$^+$ | 3699 | 37/2$^+$ | | | Iγ(30°)/Iγ(90°)=0.90 *15* (1998Ne01). |
| 701.2 *2* | 67 *7* | 5411 | 47/2$^+$ | 4709 | 45/2$^-$ | E1[a] | 0.00448 | α(K)=0.00374 *6*; α(L)=0.000573 *8*; α(M)=0.0001317 *19*; α(N+..)=3.95×10$^{-5}$ *6*<br>Iγ(30°)/Iγ(90°)=0.53 *6* (1998Ne01), 0.54 *6* (1991Me06). |
| 707.6 *3* | 65 *10* | 3866 | 39/2 | 3160 | 37/2$^+$ | | | Iγ(30°)/Iγ(90°) not given (1998Ne01,1991Me06). |
| 709.7 *1* | 536 *45* | 1868.9 | 25/2$^+$ | 1158.7 | 21/2$^+$ | E2 | 0.01216 | α(K)=0.00941 *14*; α(L)=0.00209 *3*; α(M)=0.000503 *7*; α(N+..)=0.0001496 *21*<br>Iγ(30°)/Iγ(90°)=1.06 *8* (1998Ne01), 1.01 *8* (1991Me06).<br>γ(θ): $A_2$=+0.43 *15* (1974Pr09). |
| 710.9 *3* | 102 *15* | 3869 | 41/2$^+$ | 3160 | 37/2$^+$ | | | Iγ(30°)/Iγ(90°)=0.8 *3* (1998Ne01,1991Me06). |
| 711.8 *5* | 54 *9* | 3402 | 35/2 | 2692 | 33/2$^+$ | | | Iγ(30°)/Iγ(90°)=0.36 *5* (1991Me06). |
| 712.2 *5* | 17 *6* | 8456 | 63/2$^{(-)}$ | 7745 | 59/2$^{(-)}$ | | | Iγ(30°)/Iγ(90°)=1.2 *3* (1998Ne01). |
| 729.5 *5* | 13 *3* | 6174 | | 5445 | 53/2$^-$ | | | Iγ(30°)/og(90°)=0.9 *2* (1998Ne01). |
| 733.6 *2* | 15 *4* | 5253 | | 4519 | 43/2 | | | Iγ(30°)/Iγ(90°)=0.44 *12* (1998Ne01). |
| 739.0 *2* | 38 *4* | 3366 | 35/2$^-$ | 2627 | 31/2$^-$ | E2 | 0.01116 | α(K)=0.00869 *13*; α(L)=0.00188 *3*; α(M)=0.000451 *7*; α(N+..)=0.0001345 *19*<br>Iγ(30°)/Iγ(90°)=1.1 *1* (1998Ne01), 0.89 *10* (1991Me06). |

Continued on next page (footnotes at end of table)

**(HI,xnγ) 1998Ne01,1991Me06,1986AgZZ (continued)**

γ($^{195}$Hg) (continued)

| $E_\gamma$[#] | $I_\gamma$[‡] | $E_i$(level) | $J_i^\pi$ | $E_f$ | $J_f^\pi$ | Mult.[&] | α[b] | Comments |
|---|---|---|---|---|---|---|---|---|
| [x]751.2 *7* | 7 *2* | | | | | | | Above 5893-keV level. |
| 758.3 *3* | 41 *5* | 6651 | $55/2^+$ | 5893 | $51/2^+$ | | | Iγ(30°)/Iγ(90°)=0.90 *8* (1998Ne01). |
| 782.1 *1* | 354 *24* | 3555 | $37/2^-$ | 2774 | $33/2^-$ | | | Iγ(30°)/Iγ(90°)=1.1 *1* (1998Ne01), 1.0 *1* (1991Me06). |
| [x]787.4 *6* | 13 *4* | | | | | | | Above 2691-keV level. |
| 789.7 *4* | 14 *2* | 5500 | | 4709 | $45/2^-$ | | | Iγ(30°)/Iγ(90°)=0.56 *11* (1998Ne01). |
| 801.8 *2* | 35 *5* | 3215 | $33/2^+$ | 2413.6 | $29/2^+$ | | | Iγ(30°)/Iγ(90°)=0.71 *12* (1998Ne01), 1.16 *13* (1991Me06). |
| 813.6 *5* | 13 *3* | 3505 | | 2692 | $33/2^+$ | | | Iγ(30°)/Iγ(90°)=0.3 *1* (1998Ne01). |
| 821.2 *3* | 37 *5* | 4901 | $45/2^+$ | 4080 | $41/2^+$ | | | Iγ(30°)/Iγ(90°)=0.92 *9* (1998Ne01), 0.8 *1* (1991Me06). |
| 825.1 *5* | 17 *3* | 8892 | $65/2^{(-)}$ | 8067 | $61/2^{(-)}$ | | | Iγ(30°)/Iγ(90°)=0.65 *20* (1998Ne01). |
| 828.3 *4* | 22 *4* | 7128 | $57/2^+$ | 6299 | $53/2^+$ | | | Iγ(30°)/Iγ(90°)=1.5 *3* (1998Ne01). |
| 830.3 *2* | 23 *3* | 4196 | $39/2^-$ | 3366 | $35/2^-$ | | | Iγ(30°)/Iγ(90°)=1.1 *1* (1998Ne01), 0.97 *16* (1991Me06). |
| [x]833.4 *6* | 12 *3* | | | | | | | Above 3158-keV level. |
| [x]840.4 *6* | 10 *3* | | | | | | | Above 3158-keV level. |
| 844.8 *4* | 30 *5* | 5242 | | 4397 | $41/2^+$ | | | Iγ(30°)/Iγ(90°)=0.52 *12* (1998Ne01). |
| 845.1 *6* | 16 *5* | 8383 | $63/2^+$ | 7538 | $59/2^+$ | | | Iγ(30°)/Iγ(90°)=0.87 *15* (1998Ne01). |
| 851.2 *4* | 11 *3* | 3264 | $33/2^+$ | 2413.6 | $29/2^+$ | | | Iγ(30°)/Iγ(90°) not given (1998Ne01,1991Me06). |
| 872.9 *2* | 48 *5* | 4742 | $45/2^+$ | 3869 | $41/2^+$ | | | Iγ(30°)/Iγ(90°)=1.1 *1* (1998Ne01), 1.01 *11* (1991Me06). |
| 875.7 *6* | 12 *3* | 9331 | $67/2^{(-)}$ | 8456 | $63/2^{(-)}$ | | | |
| 882.0 *7* | 12 *3* | 8010 | $61/2^+$ | 7128 | $57/2^+$ | | | |
| 886.1 *6* | 19 *4* | 7538 | $59/2^+$ | 6651 | $55/2^+$ | | | |
| 889.4 *8* | 6 *2* | 10221 | $71/2^{(-)}$ | 9331 | $67/2^{(-)}$ | | | |
| 890.1 *3* | 17 | 2757 | $(29/2^+)$ | 1868.9 | $25/2^+$ | | | $I_\gamma$: from 1991Me06. Iγ(30°)/Iγ(90°)=1.3 *2* (1991Me06). |
| 893.4 *6* | 12 *3* | 9785 | $69/2^{(-)}$ | 8892 | $65/2^{(-)}$ | | | |
| 902.1 *3* | 44 *5* | 4982 | $43/2^+$ | 4080 | $41/2^+$ | | | Iγ(30°)/Iγ(90°)=0.52 *7* (1998Ne01), 0.48 *7* (1991Me06). |
| 912.0 *3* | 32 *5* | 5309 | $45/2^+$ | 4397 | $41/2^+$ | | | Iγ(30°)/Iγ(90°)=0.82 *15* (1998Ne01). |
| 913.8 *2* | 69 *11* | 1461.3 | $19/2^+$ | 547.3 | $17/2^+$ | M1+E2 | 0.013 *6* | α(K)=0.011 *5*; α(L)=0.0018 *8*; α(M)=0.00043 *17*; α(N+..)=0.00013 *5* Iγ(30°)/Iγ(90°)=0.36 *4* (1991Me06). γ(θ): $A_2$=−1.05 *20* (1974Pr09). |
| 926.0 *3* | 67 *7* | 6327 | $53/2^-$ | 5400 | $49/2^-$ | | | Iγ(30°)/Iγ(90°)=1.1 *1* (1998Ne01). |
| 926.2 *3* | 27 *5* | 5445 | $53/2^-$ | 4519 | 43/2 | | | Iγ(30°)/Iγ(90°)=0.9 *2* (1998Ne01). |
| 939.7 *2* | 22 *4* | 1486 | $(19/2^+)$ | 547.3 | $17/2^+$ | | | Iγ(30°)/Iγ(90°)=0.47 *8* (1991Me06). |
| [x]940.3 *7* | 6 *2* | | | | | | | Above 4981-keV level. |
| 942.0 *5* | 11 *3* | 4808 | | 3866 | 39/2 | | | |
| 953.5 *5* | 12 *4* | 5137 | | 4182 | $41/2^-$ | | | |
| 967.5 *6* | 4 *2* | 5868 | | 4901 | $45/2^+$ | | | |
| 970.2 *4* | 17 *3* | 5489 | | 4519 | 43/2 | | | Iγ(30°)/Iγ(90°)=0.9 *2* (1998Ne01). |
| 992.5 *4* | 28 *4* | 5176 | $43/2^+$ | 4182 | $41/2^-$ | | | Iγ(30°)/Iγ(90°)=0.52 *7* (1998Ne01). |
| 1006.9 *3* | 15 *4* | 5749 | $49/2^+$ | 4742 | $45/2^+$ | | | Iγ(30°)/Iγ(90°)=1.3 *3* (1998Ne01). |
| 1013.4 *7* | 6 *2* | 7188 | | 6174 | | | | |
| 1024.8 *7* | 6 *2* | 4582 | | 3555 | $37/2^-$ | | | Iγ(30°)/Iγ(90°)=0.60 *14* (1998Ne01). |
| 1061.4 *7* | 9 *3* | 5962 | | 4901 | $45/2^+$ | | | Iγ(30°)/Iγ(90°)=1.3 *3* (1998Ne01). |
| 1078.5 *4* | 29 *4* | 7405 | $57/2^-$ | 6327 | $53/2^-$ | (E2)[a] | 0.00521 | α(K)=0.00421 *6*; α(L)=0.000766 *11*; α(M)=0.000180 *3*; α(N+..)=5.39×10$^{-5}$ *8* Mult.: linear polarization (1998Ne01) perhaps consistent with E2. Iγ(30°)/Iγ(90°)=1.0 *2* (1998Ne01). |
| 1085.3 *5* | 26 *4* | 7412 | $57/2^-$ | 6327 | $53/2^-$ | (E2)[a] | 0.00515 | α(K)=0.00416 *6*; α(L)=0.000755 *11*; |

Continued on next page (footnotes at end of table)

**(HI,xnγ) 1998Ne01,1991Me06,1986AgZZ (continued)**

γ($^{195}$Hg) (continued)

| $E_\gamma$[#] | $I_\gamma$[‡] | $E_i$(level) | $J_i^\pi$ | $E_f$ | $J_f^\pi$ | Comments |
|---|---|---|---|---|---|---|
| | | | | | | $\alpha$(M)=0.0001775 *25*; $\alpha$(N+..)=5.32×10$^{-5}$ *8*<br>Mult.: linear polarization (1998Ne01) perhaps consistent with E2.<br>Iγ(30°)/Iγ(90°)=1.2 *2* (1998Ne01). |
| 1239.2 *5* | 18 *4* | 4397 | 41/2$^+$ | 3160 | 37/2$^+$ | Iγ(30°)/Iγ(90°)=0.8 *2* (1998Ne01). |
| 1307.3 *5* | 5 *3* | 5176 | 43/2$^+$ | 3869 | 41/2$^+$ | |
| 1440.9 *4* | 10 *2* | 5309 | 45/2$^+$ | 3869 | 41/2$^+$ | |
| [x]1603.5 *7* | 10 *3* | | | | | Above 1158-keV level. |

[†] From 1991Me06.
[‡] From 1998Ne01. Relative photon intensity normalized to Iγ(Eγ=371.0)=1000 *50*.
[#] Uncertainties between 0.1 and 0.8 keV depending on intensity.
[@] From 1974Pr09.
[&] From γ(θ). $A_2$=+0.4 *1* are considered stretched Q(E2), $A_2$=−1.1 *2* are considered M1+E2, and $A_2$=−0.15 are considered (E1) (1986AgZZ). Iγ(30°)/Iγ(90°)≈1 are considered Q and Iγ(30°)/Iγ(90°)≈0.5 are taken as D (1991Me06).
[a] From linear polarization (1998Ne01).
[b] 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.
[c] Placement of transition in the level scheme is uncertain.
[x] γ ray not placed in level scheme.

**(HI,xnγ) 1998Ne01,1991Me06,1986AgZZ**

Level Scheme

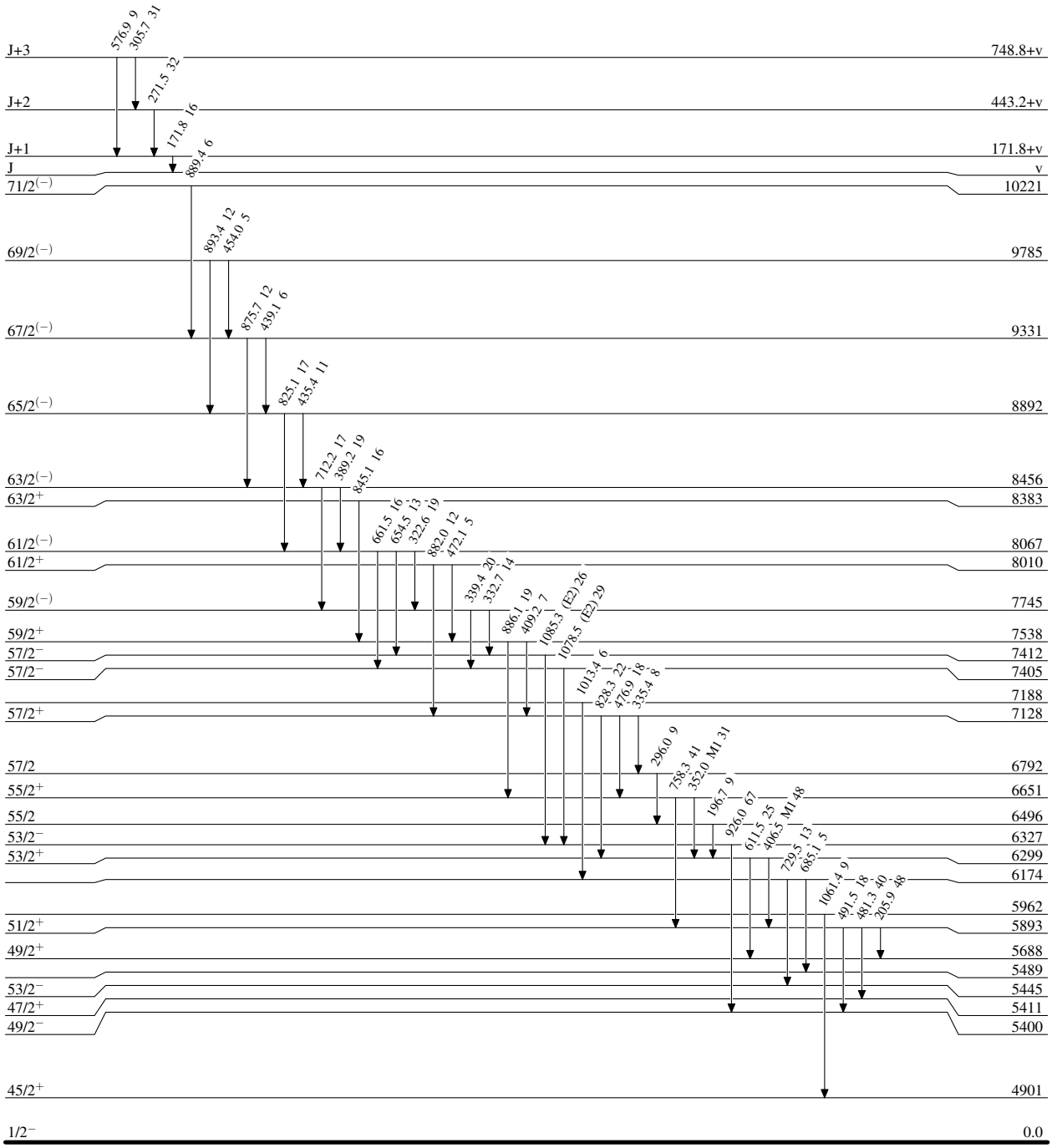
Intensities: Relative $I_\gamma$

Legend

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

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

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




$^{195}_{80}Hg_{115}$

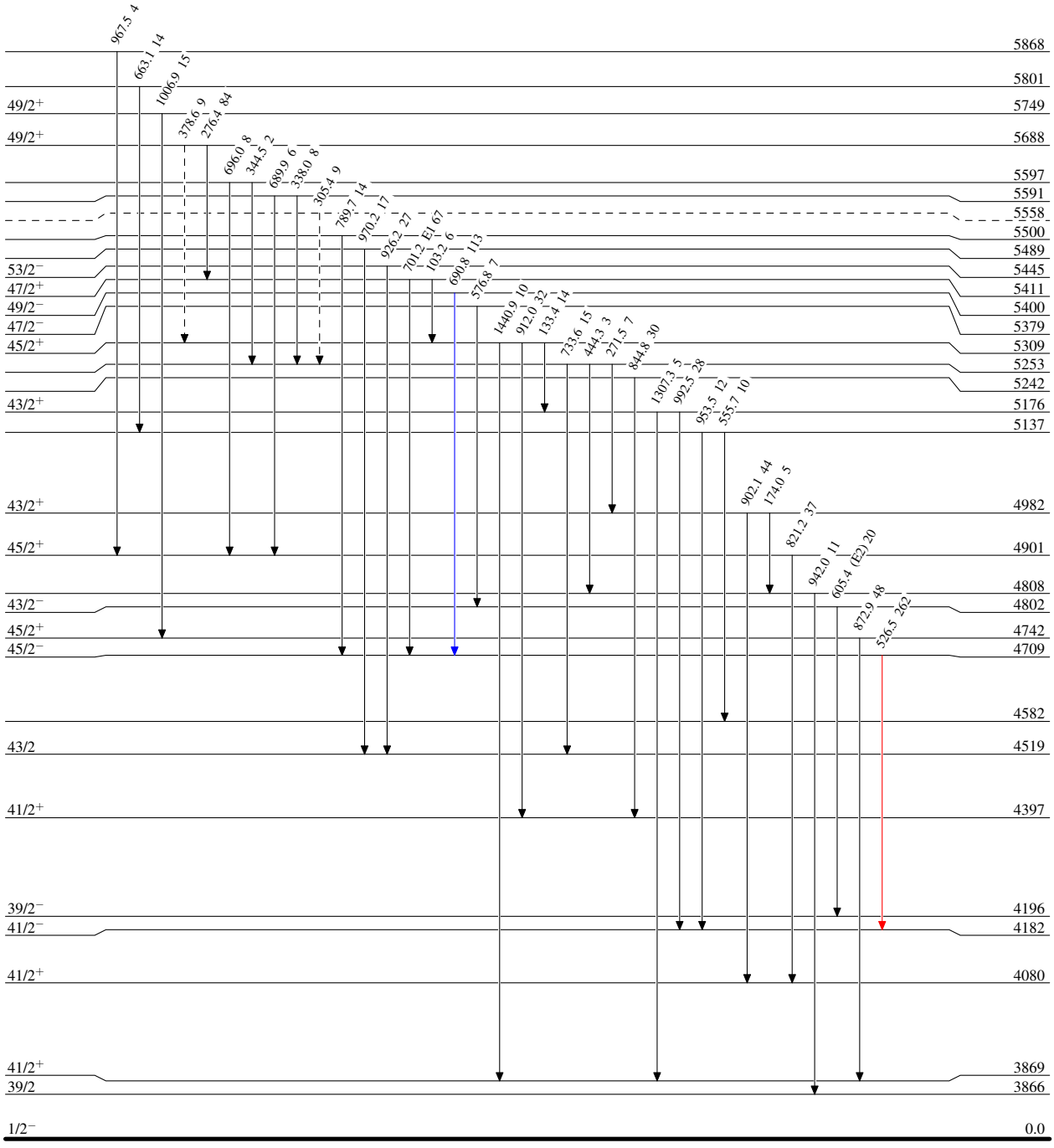
**(HI,xnγ) 1998Ne01,1991Me06,1986AgZZ**

Level Scheme (continued)

Intensities: Relative $I_\gamma$

Legend

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




$^{195}_{80}Hg_{115}$

**(HI,xnγ) 1998Ne01,1991Me06,1986AgZZ**

Level Scheme (continued)

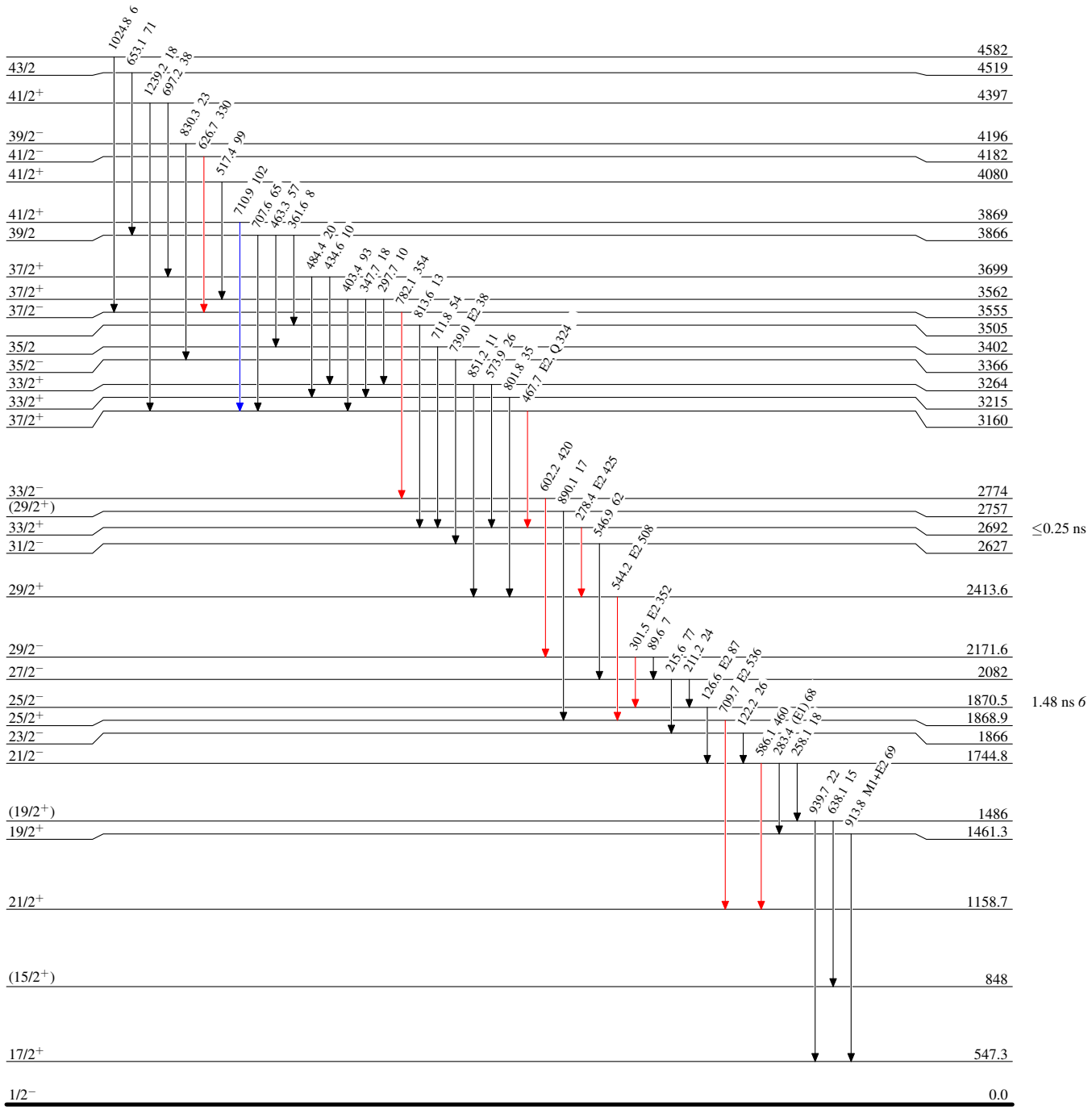
Intensities: Relative $I_\gamma$

Legend

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

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

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

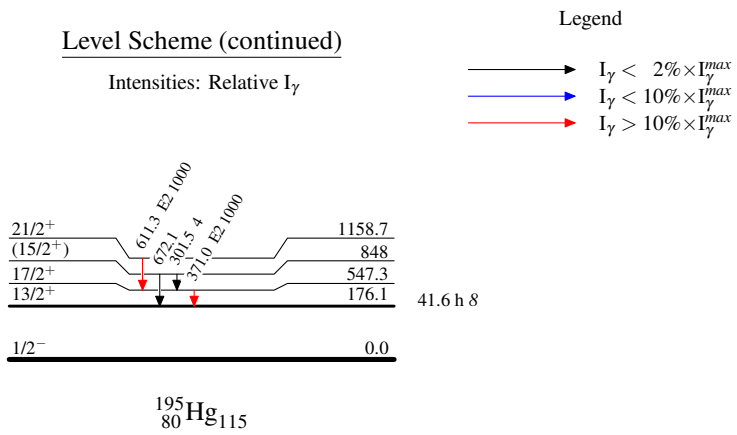



$^{195}_{80}Hg_{115}$

**(HI,xnγ) 1998Ne01,1991Me06,1986AgZZ**

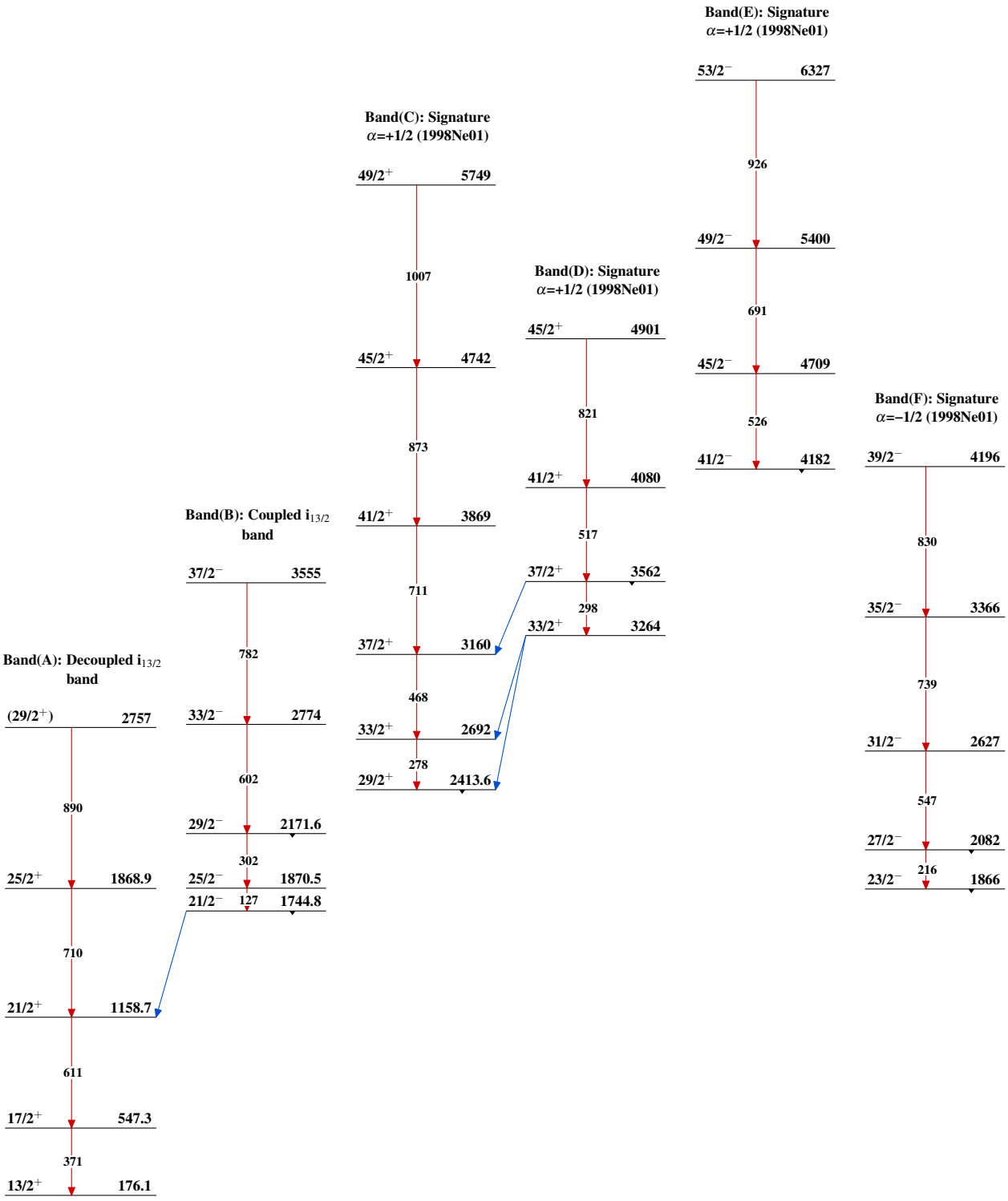
Level Scheme (continued)

Intensities: Relative $I_\gamma$



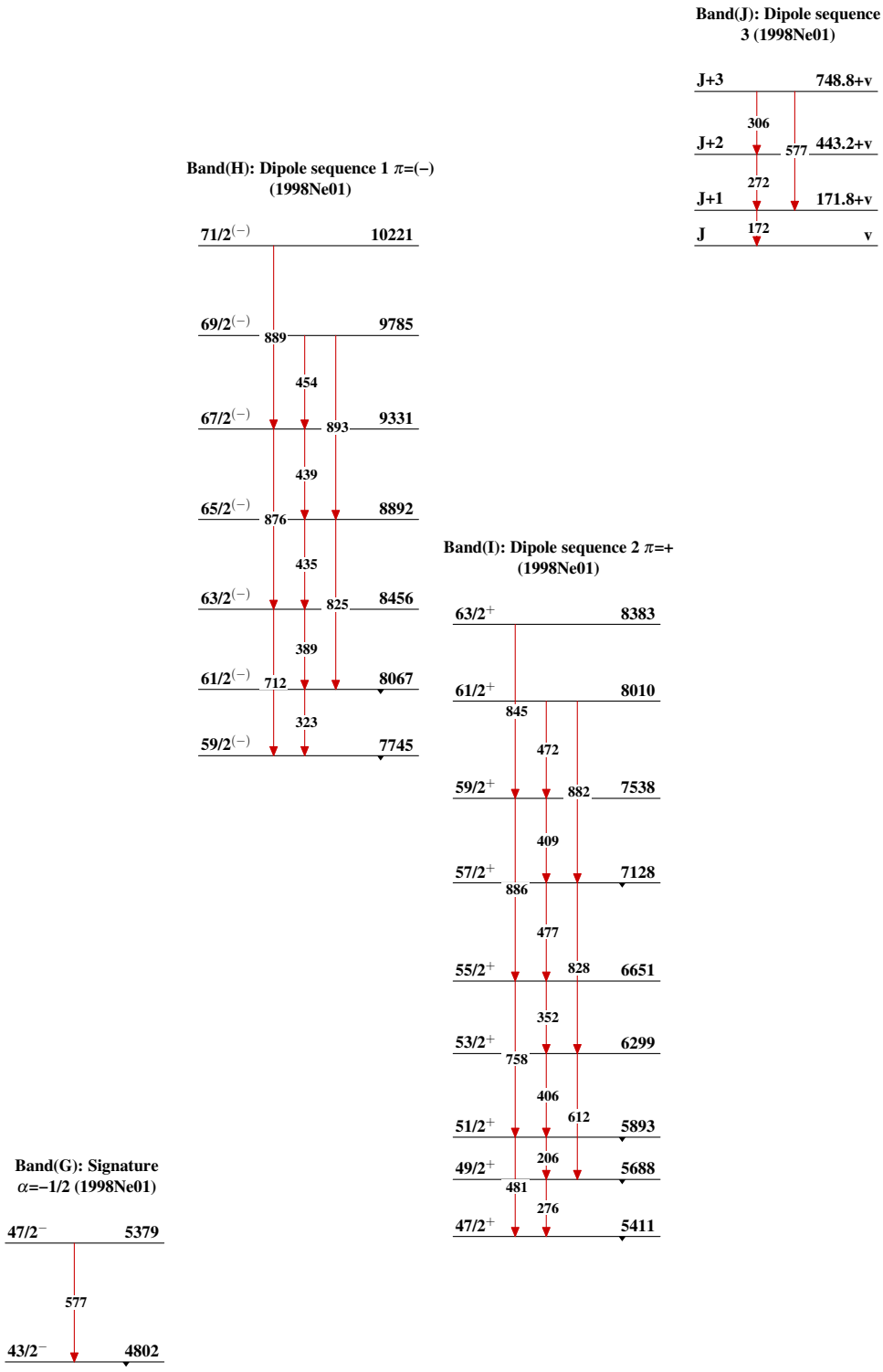

$^{195}_{80}Hg_{115}$

**(HI,xnγ) 1998Ne01,1991Me06,1986AgZZ**




$^{195}_{80}Hg_{115}$

## (HI,xnγ) 1998Ne01,1991Me06,1986AgZZ (continued)




$^{195}_{80}Hg_{115}$