## Adopted Levels, Gammas

| Type | Author | History Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | N. Nica | NDS 111,525 (2010) | 19-Nov-2009 |

Q($\beta^-$)=−6.98×10$^3$ *11*; S(n)=9695 *7*; S(p)=5408 *12*; Q($\alpha$)=−3014 *6* 2012Wa38
Note: Current evaluation has used the following Q record −6.98E+3 11 9640 *340* 5410 *300* −2960 *310* 2003Au03.
Q($\varepsilon$p)=980 *300* (2003Au03).

Theory, calculations, systematics:
Gamow-Teller strength distribution: 2005Ju11, 2002Ro16, 1998Jo01
dynamic collective model, log *ft*'s: 2001ViZY
role of pairing interaction: 2007Bh01
shell model: 1999Zh32
binding energies: 1995Jo14
cluster radioactivities: 1995Sh16
newer atomic mass measurement: 2009El08

### $^{97}$Pd Levels

Most of the data for $^{97}$Pd come from $^{97}$Ag $\varepsilon$ decay (25.5 s) based on 2001Hu04 and 1999Hu10. This evaluation assumed the $J^\pi$ values adopted previously by 2001Hu04, except for the fact that unlike 2001Hu04, we consider all $J^\pi$ values as tentative, which derives from tentative $J^\pi$'s for both $^{97}$Ag and $^{97}$Pd g.s.'s.

Cross Reference (XREF) Flags

- A $^{97}$Ag $\varepsilon$ decay (25.5 s)
- B $^{98}$Cd $\varepsilon$p decay (9.2 s)
- C $^{64}$Zn($^{40}$Ca,$\alpha$2pn$\gamma$)
- D $^{96}$Ru($^3$He,2n$\gamma$)

| E(level)† | J$^\pi$# | T$_{1/2}$ | XREF | Comments |
|---|---|---|---|---|
| 0.0 | (5/2$^+$) | 3.10 min *9* | ABCD | %$\varepsilon$+%$\beta^+$=100<br>J$^\pi$: from shell model and analogy with other N=51 nuclei. configuration=2d5/2.<br>T$_{1/2}$: weighted average of 3.1 min *1* (1980Go11), 3.0 min *2* (1980Za11), and 3.3 min *3* (1969At01). |
| 686.62‡ *3* | (7/2$^+$)‡ | | A CD | J$^\pi$: log *ft*=5.85 from (9/2$^+$) $^{97}$Ag; 686.4$\gamma$ to g.s. is (M1+E2) ($\gamma(\theta)$ data of 1990Pi01). From shell model probable configuration=1g7/2. |
| 774.97 *7* | (1/2$^+$) | | A | |
| 1043.71 *5* | (7/2$^+$) | | A | |
| 1294.61‡ *4* | (9/2$^+$)‡ | | A CD | J$^\pi$: (E2) $\gamma$ to g.s., (M1+E2) $\gamma$ to 686.4-keV (7/2$^+$) level. |
| 1469.9 *5* | | | C | |
| 1537.67 *4* | (7/2$^+$,9/2$^+$) | | A | |
| 1631.0 *5* | | | C | |
| 1712.01 *8* | (5/2$^+$) | | A | |
| 1782.30 *6* | (5/2$^+$) | | A | |
| 1881.57‡ *4* | (13/2$^+$)‡ | | A CD | J$^\pi$: E2 $\gamma$ to 1294.6-keV (9/2$^+$) level. |
| 1925.2 *5* | | | C | |
| 1936.01 *11* | | | A | |
| 1943.46 *4* | (11/2$^+$) | | A D | |
| 1998.67 *5* | (5/2$^+$,7/2$^+$,9/2$^+$) | | A | |
| 2116.95 *4* | (7/2$^+$,9/2$^+$) | | A | |
| 2131.65 *9* | | | A | |
| 2134.63 *4* | (7/2$^+$,9/2$^+$) | | A | |

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**Adopted Levels, Gammas (continued)**

$^{97}$Pd Levels (continued)

| E(level)[†] | J$^{\pi}$[#] | $T_{1/2}$ | XREF | Comments |
|---|---|---|---|---|
| 2137.4 *3* | | | A | |
| 2141.10 *4* | (13/2$^+$) | | A D | |
| 2174.76 *7* | (5/2$^+$,7/2$^+$,9/2$^+$) | | A | |
| 2176.22 *4* | (9/2$^+$) | | A D | |
| 2231.54 *4* | (11/2$^+$,13/2$^+$) | | A | |
| 2244.21[‡] *8* | (17/2$^+$)[‡] | 2.3 ns *5* | CD | J$^{\pi}$: stretched E2 $\gamma$ to 1881.5 (13/2$^+$) level.<br>$T_{1/2}$: from 1990Al07 in $^{64}$Zn($^{40}$Ca,$\alpha$2pn$\gamma$) data set. |
| 2283.41 *6* | (5/2$^+$) | | A | |
| 2344.81 *5* | (7/2$^+$,9/2$^+$) | | A | |
| 2371.64 *6* | (15/2$^+$) | | A | |
| 2375.75 *5* | (9/2$^+$,11/2$^+$,13/2$^+$) | | A | |
| 2376.62 *5* | (5/2$^+$,7/2$^+$,9/2$^+$) | | A | |
| 2395.68 *5* | (11/2$^+$) | | A | |
| 2417.07 *11* | | | A | |
| 2446.87 *21* | | | A | |
| 2469.05[‡] *17* | (19/2$^+$)[‡] | | CD | J$^{\pi}$: $\gamma$ to 2244.0-keV (17/2$^+$) level is not pure E2. |
| 2481.88 *8* | (13/2$^+$) | | A CD | |
| 2495.98 *8* | (7/2$^+$,9/2$^+$) | | A | |
| 2500.35 *8* | (15/2$^+$) | | A | |
| 2505.97 *4* | (9/2$^+$) | | A | |
| 2515.2 *3* | | | A | |
| 2583.27 *8* | | | A | |
| 2587.61 *5* | (13/2$^+$) | | A | |
| 2604.92 *6* | | | A | |
| 2622.73 *5* | (11/2$^+$,13/2$^+$) | | A | |
| 2639.78[‡] *24* | (21/2$^+$)[‡] | | C | J$^{\pi}$: (M1+E2) $\gamma$ to 2468.6 (19/2$^+$) level. |
| 2679.53 *5* | (9/2$^+$,11/2$^+$) | | A | |
| 2689.92 *14* | | | A | |
| 2763.80 *12* | | | A | |
| 2783.92 *11* | | | A | |
| 2799.30 *7* | (5/2$^+$,7/2$^+$,9/2$^+$) | | A | |
| 2808.00 *10* | | | A | |
| 2831.02 *6* | (9/2$^+$,11/2$^+$,13/2$^+$) | | A | |
| 2842.84 *6* | | | A | |
| 2881.79 *6* | (9/2$^+$,11/2$^+$) | | A | |
| 2882.68 *25* | | | C | |
| 2884.50 *21* | | | A | |
| 2890.00 *5* | (11/2$^+$) | | A | |
| 2893.21 *12* | | | A | |
| 2923.71 *21* | | | A | |
| 2961.51 *17* | (9/2$^+$,11/2$^+$,13/2$^+$) | | A | |
| 3001.56 *7* | (13/2$^+$) | | A | |
| 3005.5 *5* | | | C | |
| 3010.02 *8* | (7/2$^+$,9/2$^+$,11/2$^+$) | | A | |
| 3018.4 *3* | | | A | |
| 3023.5 *5* | | | A | |
| 3029.17 *4* | (9/2$^+$) | | A | |
| 3066.31 *21* | | | A | |
| 3067.9 *4* | | | A | |
| 3086.48 *21* | | | A | |
| 3097.27 *11* | | | A | |
| 3101.55 *6* | (7/2$^+$,9/2$^+$) | | A | |
| 3105.52 *22* | (13/2$^+$,15/2$^+$) | | A | |
| 3118.3 *12* | | | A | |
| 3147.74 *21* | | | A | |

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**Adopted Levels, Gammas (continued)**

$^{97}$Pd Levels (continued)

| E(level)[†] | Jπ[#] | XREF | Comments |
|---|---|---|---|
| 3156.97 *6* | (9/2$^+$,11/2$^+$) | A | |
| 3192.43 *8* | (9/2$^+$,11/2$^+$) | A | |
| 3209.00 *6* | (13/2$^+$) | A | |
| 3226.58 *11* | | A | |
| 3251.6 *6* | (23/2) | C | |
| 3280.26 *15* | (5/2$^+$,7/2$^+$,9/2$^+$) | A | |
| 3295.69 *5* | (11/2$^+$) | A | |
| 3303.6 *3* | | A | |
| 3329.79 *7* | | A | |
| 3351.11 *5* | (11/2$^+$) | A | |
| 3353.75 *6* | (7/2$^+$,9/2$^+$) | A | |
| 3362.33 *10* | | A | |
| 3373.53 *6* | (9/2$^+$) | A | |
| 3382.80 *5* | (7/2$^+$,9/2$^+$) | A | |
| 3406.8 *4* | | A | |
| 3429.44 *21* | | A | |
| 3434.16 *21* | | A | |
| 3473.12 *6* | (7/2$^+$,9/2$^+$,11/2$^+$) | A | |
| 3496.04 *25* | (7/2$^+$,9/2$^+$) | A | |
| 3502.99 *8* | (7/2$^+$,9/2$^+$,11/2$^+$) | A | |
| 3548.67 *11* | | A | |
| 3558.41 *8* | (9/2$^+$,11/2$^+$) | A | |
| 3577.12 *6* | (9/2$^+$,11/2$^+$) | A | |
| 3578.1 *6* | (21/2$^+$) | C | |
| 3591.02 *8* | (9/2$^+$,11/2$^+$) | A | |
| 3622.08 *11* | | A | |
| 3626.29 *11* | (7/2$^+$,9/2$^+$,11/2$^+$) | A | |
| 3676.0 *4* | (21/2$^+$,23/2$^+$) | C | Jπ: level is fed from (25/2$^+$) level; decays to (19/2$^+$) and (21/2$^+$) levels. |
| 3686.57 *18* | | A | |
| 3704.77 *21* | | A | |
| 3712.77 *22* | | A | |
| 3739.98 *4* | (11/2$^+$) | A | |
| 3759.39 *21* | | A | |
| 3763.27 *9* | (7/2$^+$,9/2$^+$) | A | |
| 3775.6 *8* | | A | |
| 3781.9 *3* | | A | |
| 3790.46 *5* | (7/2$^+$,9/2$^+$,11/2$^+$) | A | |
| 3810.7[‡] *3* | (25/2$^+$)[‡] | C | Jπ: stretched (E2) γ to 2639.5-keV (21/2)$^+$ level. |
| 3814.7 *3* | | A | |
| 3827.79 *6* | (7/2$^+$,9/2$^+$,11/2$^+$) | A | |
| 3841.98 *21* | | A | |
| 3856.46 *10* | | A | |
| 3858.65 *11* | | A | |
| 3865.42 *11* | (9/2$^+$,11/2$^+$) | A | |
| 3925.56 *12* | (9/2$^+$) | A | |
| 3953.9 *3* | (5/2$^+$,7/2$^+$,9/2$^+$) | A | |
| 3967.5 *4* | | A | |
| 3983.25 *5* | (9/2$^+$) | A | |
| 4013.61 *16* | (7/2$^+$,9/2$^+$) | A | |
| 4019.10 *5* | (9/2$^+$,11/2$^+$) | A | |
| 4040.19 *5* | (7/2$^+$,9/2$^+$) | A | |
| 4053.03 *7* | (7/2$^+$,9/2$^+$,11/2$^+$) | A | |
| 4068.51 *17* | | A | |
| 4105.34 *7* | (7/2$^+$,9/2$^+$) | A | |
| 4123.24 *9* | (9/2$^+$) | A | |
| 4125.47 *6* | (11/2$^+$) | A | |

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## Adopted Levels, Gammas (continued)

### $^{97}$Pd Levels (continued)

| E(level)[†] | Jπ[#] | XREF | Comments |
|---|---|---|---|
| 4142.66 *8* | (9/2+,11/2+) | A | |
| 4176.9 *4* | | A | |
| 4193.78 *16* | (7/2+,9/2+,11/2+) | A | |
| 4219.13 *8* | (7/2+,9/2+) | A | |
| 4256.1 *3* | | A | |
| 4264.39 *10* | (11/2+) | A | |
| 4265.92 *7* | (9/2+) | A | |
| 4285.65 *5* | (7/2+,9/2+) | A | |
| 4318.59 *5* | (7/2+,9/2+) | A | |
| 4337.0 *4* | | A | |
| 4339.2 *3* | | A | |
| 4354.50 *25* | (7/2+,9/2+,11/2+) | A | |
| 4374.74 *13* | (7/2+,9/2+) | A | |
| 4385.80 *21* | | A | |
| 4413.49 *12* | (7/2+,9/2+,11/2+) | A | |
| 4420.2 *4* | | A | |
| 4430.49 *18* | (7/2+,9/2+,11/2+) | A | |
| 4435.82 *25* | (7/2+,9/2+,11/2+) | A | |
| 4451.5 *3* | (7/2+,9/2+,11/2+) | A | |
| 4464.96 *5* | (9/2+) | A | |
| 4532.3 *3* | | A | |
| 4548.8 *6* | | A | |
| 4618.4 *3* | | A | |
| 4636.8[‡] *5* | (29/2+)[‡] | C | Jπ: stretched (E2) γ to 3810.5-keV (25/2+) level. |
| 4645.7 *4* | | A | |
| 4729.4 *7* | | A | |
| 4820.9 *5* | (31/2) | C | |
| 4915.3 *4* | (7/2+,9/2+,11/2+) | A | |
| 4915.7 *6* | | C | |
| 4992.9 *3* | (7/2+,9/2+,11/2+) | A | |
| 5004.83 *22* | (7/2+,9/2+,11/2+) | A | |
| 5042.5 *4* | (7/2+,9/2+,11/2+) | A | |
| 5086.2 *4* | (7/2+,9/2+,11/2+) | A | |
| 5150.9 *5* | (7/2+,9/2+,11/2+) | A | |
| 5238.1 *3* | | A | |
| 5256.1 *8* | (7/2+,9/2+,11/2+) | A | |
| 5280.2 *7* | (7/2+,9/2+,11/2+) | A | |
| 5326.3 *7* | (7/2+,9/2+,11/2+) | A | |
| 5535.8 *7* | | C | |
| 5887.8[‡] *6* | (33/2+)[‡] | C | Jπ: stretched (E2) γ to 4626.6-keV (29/2+) level. |
| 6313.3? *6* | | C | |
| 6541.0 *7* | | C | |
| 7523.0 *8* | | C | |

[†] From a least squares fit to Eγ's. Normalized $\chi^2$=4.0 greater than critical $\chi^2$=1.2.

[‡] Yrast state, established through cascading γ's ($^{64}$Zn($^{40}$Ca,α2pnγ)).

[#] Unless otherwise noted, assigned by 2001Hu04 according to the β intensities from $^{97}$Ag decay and the relative γ intensities. This procedure was based on the following four assumptions of 2001Hu04: (1) The spin and parity of $^{97}$Ag ground state is (9/2+); (2) a β decay with a log *ft* value smaller than 5.9 represents an allowed transition, which confines the spin and parity of the populated daughter level to be 7/2+, 9/2+, or 11/2+; (3) The γ transition does not change the parity of the connected levels, *i.e.* the E1 transitions were not used to speculate spins or parities because they are dramatically hindered in comparison with M1 transitions and therefore too weak to be detected; (4) Competition of E2 and M1 deexcitation of a given level occurs only if the ratio of the reduced E2 and M1 transition strengths, as deduced from the respective Weiskopf estimates, fulfills the condition B(E2)/B(M1)≥0.01.

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd)

All γ data are from $^{97}$Ag ε decay data set, unless otherwise noted.

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ | Mult.[†] | δ | α[c] | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 686.62 | (7/2$^+$) | 686.40[#b] *7* | 100 | 0.0 | (5/2$^+$) | (M1+E2) | +0.19 *5* | 0.00263 | α(K)=0.00231 *4*; α(L)=0.000269 *4*; α(M)=5.04×10$^{-5}$ *7*; α(N+..)=8.51×10$^{-6}$ *12*<br>α(N)=8.51×10$^{-6}$ *12* |
| 774.97 | (1/2$^+$) | 775.0 *1* | 100 *7* | 0.0 | (5/2$^+$) | | | | |
| 1043.71 | (7/2$^+$) | 1043.7 *1* | 100 *4* | 0.0 | (5/2$^+$) | | | | |
| 1294.61 | (9/2$^+$) | 608.1[&] *1* | 7.9 *4* | 686.62 | (7/2$^+$) | (M1+E2) | −3.5 *35* | 0.00345 *7* | α(K)=0.00300 *8*; α(L)=0.000370 *13*; α(M)=6.9×10$^{-5}$ *3*; α(N+..)=1.16×10$^{-5}$ *4*<br>α(N)=1.16×10$^{-5}$ *4* |
| | | 1294.58[#] *8* | 100 | 0.0 | (5/2$^+$) | (E2) | | 6.00×10$^{-4}$ | α(K)=0.000505 *7*; α(L)=5.86×10$^{-5}$ *9*; α(M)=1.097×10$^{-5}$ *16*; α(N+..)=2.53×10$^{-5}$ *4*<br>α(N)=1.85×10$^{-6}$ *3*; α(IPF)=2.35×10$^{-5}$ *4* |
| 1469.9 | | 783.3[a] *5* | 100 | 686.62 | (7/2$^+$) | | | | |
| 1537.67 | (7/2$^+$,9/2$^+$) | 1537.7[b] *1* | 100 *5* | 0.0 | (5/2$^+$) | | | | |
| 1631.0 | | 944.4[a] *5* | 100 | 686.62 | (7/2$^+$) | | | | |
| 1712.01 | (5/2$^+$) | 937.2 *1* | 100 *10* | 774.97 | (1/2$^+$) | | | | |
| | | 1712.2 *4* | 85.0 *90* | 0.0 | (5/2$^+$) | | | | |
| 1782.30 | (5/2$^+$) | 244.7 *2* | 9.2 *23* | 1537.67 | (7/2$^+$,9/2$^+$) | | | | |
| | | 738.5 *1* | 21.8 *23* | 1043.71 | (7/2$^+$) | | | | |
| | | 1782.3 *1* | 100 *6* | 0.0 | (5/2$^+$) | | | | |
| 1881.57 | (13/2$^+$) | 586.90[#] *10* | 100 | 1294.61 | (9/2$^+$) | (E2) | | 0.00380 | α(K)=0.00330 *5*; α(L)=0.000410 *6*; α(M)=7.71×10$^{-5}$ *11*; α(N+..)=1.285×10$^{-5}$ *18*<br>α(N)=1.285×10$^{-5}$ *18* |
| 1925.2 | | 630.6[a] *5* | 100 | 1294.61 | (9/2$^+$) | | | | |
| 1936.01 | | 892.3 *1* | 100 *6* | 1043.71 | (7/2$^+$) | | | | |
| 1943.46 | (11/2$^+$) | 648.8 *1* | 5.8 *5* | 1294.61 | (9/2$^+$) | | | | |
| | | 1256.8[‡] *1* | 100 | 686.62 | (7/2$^+$) | | | | |
| 1998.67 | (5/2$^+$,7/2$^+$,9/2$^+$) | 460.8 *2* | 4.2 *8* | 1537.67 | (7/2$^+$,9/2$^+$) | | | | |
| | | 955.1 *1* | 100 *8* | 1043.71 | (7/2$^+$) | | | | |
| | | 1312.2 *1* | 74.0 *67* | 686.62 | (7/2$^+$) | | | | |
| | | 1998.7 *1* | 12.6 *8* | 0.0 | (5/2$^+$) | | | | |





$^{97}_{46}Pd_{51}$-5

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ | Mult.[†] | α[c] | Comments |
|---|---|---|---|---|---|---|---|---|
| 2116.95 | (7/2$^+$,9/2$^+$) | 579.1 *2* | 6.9 *10* | 1537.67 | (7/2$^+$,9/2$^+$) | | | |
| | | 822.3 *1* | 100 *8* | 1294.61 | (9/2$^+$) | | | |
| | | 1073.5 *3* | 5.0 *8* | 1043.71 | (7/2$^+$) | | | |
| | | 1430.3 *1* | 54.5 *50* | 686.62 | (7/2$^+$) | | | |
| | | 2116.9 *1* | 21.8 *20* | 0.0 | (5/2$^+$) | | | |
| 2131.65 | | 1088.0 *1* | 100 *11* | 1043.71 | (7/2$^+$) | | | |
| | | 1356.6 *1* | 85.6 *78* | 774.97 | (1/2$^+$) | | | |
| 2134.63 | (7/2$^+$,9/2$^+$) | 597.0 *1* | 38.7 *30* | 1537.67 | (7/2$^+$,9/2$^+$) | | | |
| | | 840.0 *1* | 53.0 *39* | 1294.61 | (9/2$^+$) | | | |
| | | 1448.0 *1* | 100 *9* | 686.62 | (7/2$^+$) | | | |
| | | 2134.7 *1* | 29.1 *22* | 0.0 | (5/2$^+$) | | | |
| 2137.4 | | 1093.7 *3* | 100 *17* | 1043.71 | (7/2$^+$) | | | |
| 2141.10 | (13/2$^+$) | 197.6 *1* | 6.0 *6* | 1943.46 | (11/2$^+$) | | | |
| | | 259.9[b] *1* | 1.7 *2* | 1881.57 | (13/2$^+$) | | | |
| | | 846.3[‡] *1* | 100 | 1294.61 | (9/2$^+$) | | | |
| 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) | 2175.0 *1* | 100 *7* | 0.0 | (5/2$^+$) | | | |
| 2176.22 | (9/2$^+$) | 638.5 *1* | 14.6 *10* | 1537.67 | (7/2$^+$,9/2$^+$) | | | |
| | | 1489.5[‡] *1* | 100 | 686.62 | (7/2$^+$) | | | |
| 2231.54 | (11/2$^+$,13/2$^+$) | 350.0 *1* | 100 *6* | 1881.57 | (13/2$^+$) | | | |
| | | 936.9 *1* | 61.7 *50* | 1294.61 | (9/2$^+$) | | | |
| 2244.21 | (17/2$^+$) | 362.67[#] *10* | 100 | 1881.57 | (13/2$^+$) | (E2) | 0.01594 | B(E2)(W.u.)=1.5 *4*<br>α(K)=0.01370 *20*; α(L)=0.00184 *3*; α(M)=0.000347 *5*; α(N+..)=5.72×10$^{-5}$ *8*<br>α(N)=5.72×10$^{-5}$ *8* |
| 2283.41 | (5/2$^+$) | 745.4[b] *1* | 12.5 *42* | 1537.67 | (7/2$^+$,9/2$^+$) | | | |
| | | 1508.2 *2* | 20.4 *29* | 774.97 | (1/2$^+$) | | | |
| | | 2283.2 *1* | 100 *8* | 0.0 | (5/2$^+$) | | | |
| 2344.81 | (7/2$^+$,9/2$^+$) | 401.2 *2* | 5.6 *6* | 1943.46 | (11/2$^+$) | | | |
| | | 807.1 *1* | 15.6 *13* | 1537.67 | (7/2$^+$,9/2$^+$) | | | |
| | | 1050.6 *2* | 5.0 *13* | 1294.61 | (9/2$^+$) | | | |
| | | 1658.1 *1* | 100 *6* | 686.62 | (7/2$^+$) | | | |
| | | 2344.8 *1* | 8.1 *25* | 0.0 | (5/2$^+$) | | | |
| 2371.64 | (15/2$^+$) | 127.3 *2* | 5.5 *10* | 2244.21 | (17/2$^+$) | | | |
| | | 230.5 *1* | 100 *7* | 2141.10 | (13/2$^+$) | | | |
| | | 490.0 *1* | 78.3 *67* | 1881.57 | (13/2$^+$) | | | |
| 2375.75 | (9/2$^+$,11/2$^+$,13/2$^+$) | 144.2 *1* | 2.4 *2* | 2231.54 | (11/2$^+$,13/2$^+$) | | | |
| | | 234.6 *1* | 5.6 *6* | 2141.10 | (13/2$^+$) | | | |
| | | 432.3 *1* | 7.8 *11* | 1943.46 | (11/2$^+$) | | | |
| | | 494.2 *1* | 100 *6* | 1881.57 | (13/2$^+$) | | | |
| 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) | 838.8 *1* | 24.4 *24* | 1537.67 | (7/2$^+$,9/2$^+$) | | | |





$^{97}_{46}Pd_{51}$-6

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ | Comments |
|---|---|---|---|---|---|---|
| 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) | 1690.2 *2* | 7.1 *16* | 686.62 | (7/2$^+$) | |
| | | 2376.6 *1* | 100 *6* | 0.0 | (5/2$^+$) | |
| 2395.68 | (11/2$^+$) | 254.8 *1* | 10.6 *12* | 2141.10 | (13/2$^+$) | |
| | | 452.2 *1* | 12.9 *12* | 1943.46 | (11/2$^+$) | |
| | | 858.2 *2* | 2.5 *5* | 1537.67 | (7/2$^+$,9/2$^+$) | |
| | | 1100.9 *1* | 100 *6* | 1294.61 | (9/2$^+$) | |
| | | 1709.1 *2* | 10.6 *18* | 686.62 | (7/2$^+$) | |
| 2417.07 | | 535.5 *1* | 100 *11* | 1881.57 | (13/2$^+$) | |
| 2446.87 | | 565.3 *2* | 100 *17* | 1881.57 | (13/2$^+$) | |
| 2469.05 | (19/2$^+$) | 224.82[@] *15* | 100 | 2244.21 | (17/2$^+$) | |
| 2481.88 | (13/2$^+$) | 305.5[‡] *1* | 62.5 *50* | 2176.22 | (9/2$^+$) | |
| | | 600.5[‡] *1* | 100 | 1881.57 | (13/2$^+$) | $E_\gamma$: γ also observed by 1990Pi01 and determined to be feeding the 1881.5-keV level. |
| 2495.98 | (7/2$^+$,9/2$^+$) | 958.5 *1* | 84.0 *80* | 1537.67 | (7/2$^+$,9/2$^+$) | |
| | | 1808.8 *2* | 80.0 *80* | 686.62 | (7/2$^+$) | |
| | | 2495.9 *4* | 100 *28* | 0.0 | (5/2$^+$) | |
| 2500.35 | (15/2$^+$) | 256.2 *1* | 100 *9* | 2244.21 | (17/2$^+$) | |
| | | 618.9 *1* | 86.4 *91* | 1881.57 | (13/2$^+$) | |
| 2505.97 | (9/2$^+$) | 389.2 *1* | 14.2 *10* | 2116.95 | (7/2$^+$,9/2$^+$) | |
| | | 562.4 *1* | 8.4 *10* | 1943.46 | (11/2$^+$) | |
| | | 1211.0[b] *1* | 100 *11* | 1294.61 | (9/2$^+$) | |
| | | 1819.4 *1* | 23.2 *21* | 686.62 | (7/2$^+$) | |
| | | 2505.9 *1* | 10.5 *5* | 0.0 | (5/2$^+$) | |
| 2515.2 | | 633.6 *3* | 100 *40* | 1881.57 | (13/2$^+$) | |
| 2583.27 | | 1288.5 *1* | 100 *9* | 1294.61 | (9/2$^+$) | |
| 2587.61 | (13/2$^+$) | 216.0 *1* | 28.0 *20* | 2371.64 | (15/2$^+$) | |
| | | 356.7[b] *1* | 1.4 *2* | 2231.54 | (11/2$^+$,13/2$^+$) | |
| | | 446.4 *1* | 100 *5* | 2141.10 | (13/2$^+$) | |
| | | 643.9 *2* | 3.0 *5* | 1943.46 | (11/2$^+$) | |
| 2604.92 | | 259.2[b] *2* | 23.3 *43* | 2344.81 | (7/2$^+$,9/2$^+$) | |
| | | 487.9 *1* | 76.2 *95* | 2116.95 | (7/2$^+$,9/2$^+$) | |
| | | 1067.3 *1* | 81.0 *95* | 1537.67 | (7/2$^+$,9/2$^+$) | |
| | | 1309.7 *12* | 95 *14* | 1294.61 | (9/2$^+$) | |
| | | 1561.1 *1* | 40.5 *43* | 1043.71 | (7/2$^+$) | |
| | | 1918.3 *3* | 100 *14* | 686.62 | (7/2$^+$) | |
| 2622.73 | (11/2$^+$,13/2$^+$) | 247.1 *1* | 8.4 *10* | 2375.75 | (9/2$^+$,11/2$^+$,13/2$^+$) | |
| | | 391.1 *1* | 13.8 *12* | 2231.54 | (11/2$^+$,13/2$^+$) | |
| | | 481.7 *1* | 14.9 *14* | 2141.10 | (13/2$^+$) | |
| | | 678.7 *4* | 4.0 *14* | 1943.46 | (11/2$^+$) | |
| | | 741.1 *1* | 100 *8* | 1881.57 | (13/2$^+$) | |





$^{97}_{46}Pd_{51}$-7

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ | Mult.[†] | δ | α[c] | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 2622.73 | (11/2$^+$,13/2$^+$) | 1328.1 *2* | 40.5 *81* | 1294.61 | (9/2$^+$) | | | | |
| 2639.78 | (21/2$^+$) | 170.70[a] *18* | 100 | 2469.05 | (19/2$^+$) | (M1+E2) | −0.09 *7* | 0.0878 *24* | α(K)=0.0764 *20*; α(L)=0.0094 *4*; α(M)=0.00176 *7*; α(N+..)=0.000296 *11* α(N)=0.000296 *11* δ: −0.16≤δ≤−0.016 from $^{64}$Zn($^{40}$Ca,α2pnγ) data set. |
| 2679.53 | (9/2$^+$,11/2$^+$) | 503.3 *2* | 13.0 *37* | 2176.22 | (9/2$^+$) | | | | |
| | | 736.3 *1* | 33.3 *37* | 1943.46 | (11/2$^+$) | | | | |
| | | 797.2[b] *2* | 14.1 *17* | 1881.57 | (13/2$^+$) | | | | |
| | | 1141.9 *1* | 100 *7* | 1537.67 | (7/2$^+$,9/2$^+$) | | | | |
| | | 1384.9 *2* | 27.8 *37* | 1294.61 | (9/2$^+$) | | | | |
| | | 1992.9 *1* | 85 *11* | 686.62 | (7/2$^+$) | | | | |
| 2689.92 | | 573.1 *2* | 20.6 *29* | 2116.95 | (7/2$^+$,9/2$^+$) | | | | |
| | | 907.6 *2* | 47.1 *59* | 1782.30 | (5/2$^+$) | | | | |
| | | 2003.0 *3* | 100 *12* | 686.62 | (7/2$^+$) | | | | |
| 2763.80 | | 981.5 *1* | 100 *13* | 1782.30 | (5/2$^+$) | | | | |
| 2783.92 | | 1489.3 *1* | 100 *22* | 1294.61 | (9/2$^+$) | | | | |
| 2799.30 | (5/2$^+$,7/2$^+$,9/2$^+$) | 1017.0 *2* | 21.2 *30* | 1782.30 | (5/2$^+$) | | | | |
| | | 1087.4 *1* | 13.0 *21* | 1712.01 | (5/2$^+$) | | | | |
| | | 1754.9 *3* | 13.6 *21* | 1043.71 | (7/2$^+$) | | | | |
| | | 2112.4 *2* | 15.2 *30* | 686.62 | (7/2$^+$) | | | | |
| | | 2799.4 *2* | 100 *6* | 0.0 | (5/2$^+$) | | | | |
| 2808.00 | | 666.9 *1* | 100 *11* | 2141.10 | (13/2$^+$) | | | | |
| 2831.02 | (9/2$^+$,11/2$^+$,13/2$^+$) | 696.2 *1* | 100 *10* | 2134.63 | (7/2$^+$,9/2$^+$) | | | | |
| | | 949.3 *3* | 6.7 *17* | 1881.57 | (13/2$^+$) | | | | |
| | | 1537.1 *1* | 76.2 *71* | 1294.61 | (9/2$^+$) | | | | |
| 2842.84 | | 498.0 *2* | 34.6 *39* | 2344.81 | (7/2$^+$,9/2$^+$) | | | | |
| | | 668.6 *2* | 10.4 *15* | 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) | | | | |
| | | 708.3 *2* | 22.7 *35* | 2134.63 | (7/2$^+$,9/2$^+$) | | | | |
| | | 844.8[b] *2* | 30.8 *39* | 1998.67 | (5/2$^+$,7/2$^+$,9/2$^+$) | | | | |
| | | 1305.1 *1* | 76.9 *77* | 1537.67 | (7/2$^+$,9/2$^+$) | | | | |
| | | 1798.5[b] *2* | 30.8 *39* | 1043.71 | (7/2$^+$) | | | | |
| | | 2156.0 *2* | 100 *12* | 686.62 | (7/2$^+$) | | | | |
| 2881.79 | (9/2$^+$,11/2$^+$) | 763.5[b] *3* | 10.3 *26* | 2116.95 | (7/2$^+$,9/2$^+$) | | | | |
| | | 938.4 *1* | 87.2 *77* | 1943.46 | (11/2$^+$) | | | | |
| | | 1587.3 *1* | 92.3 *77* | 1294.61 | (9/2$^+$) | | | | |
| | | 2195.4 *1* | 100 *10* | 686.62 | (7/2$^+$) | | | | |
| 2882.68 | | 413.5[a] *4* | 100 | 2469.05 | (19/2$^+$) | | | | |
| 2884.50 | | 1102.2 *2* | 100 *14* | 1782.30 | (5/2$^+$) | | | | |
| 2890.00 | (11/2$^+$) | 302.5 *3* | 9.9 *7* | 2587.61 | (13/2$^+$) | | | | |





$^{97}_{46}Pd_{51}$-8

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ |
|---|---|---|---|---|---|
| 2890.00 | (11/2$^+$) | 494.3 *1* | 16.5 *18* | 2395.68 | (11/2$^+$) |
| | | 658.4 *1* | 19.3 *18* | 2231.54 | (11/2$^+$,13/2$^+$) |
| | | 749.2 *2* | 11.0 *9* | 2141.10 | (13/2$^+$) |
| | | 946.4 *1* | 41.3 *37* | 1943.46 | (11/2$^+$) |
| | | 1008.3 *1* | 69.7 *55* | 1881.57 | (13/2$^+$) |
| | | 1595.8[b] *1* | 100 *7* | 1294.61 | (9/2$^+$) |
| | | 2202.9 *3* | 12.8 *18* | 686.62 | (7/2$^+$) |
| 2893.21 | | 1355.5 *2* | 100 *16* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 1849.5 *2* | 49 *13* | 1043.71 | (7/2$^+$) |
| 2923.71 | | 782.6 *2* | 100 *13* | 2141.10 | (13/2$^+$) |
| 2961.51 | (9/2$^+$,11/2$^+$,13/2$^+$) | 1079.9 *3* | 100 *8* | 1881.57 | (13/2$^+$) |
| | | 1917.8 *2* | 18.3 *33* | 1043.71 | (7/2$^+$) |
| 3001.56 | (13/2$^+$) | 501.4 *1* | 35.8 *35* | 2500.35 | (15/2$^+$) |
| | | 860.4 *1* | 23.9 *35* | 2141.10 | (13/2$^+$) |
| | | 1058.0 *2* | 22.3 *35* | 1943.46 | (11/2$^+$) |
| | | 1119.8 *2* | 100 *12* | 1881.57 | (13/2$^+$) |
| 3005.5 | | 761.3[a] *5* | 100 | 2244.21 | (17/2$^+$) |
| 3010.02 | (7/2$^+$,9/2$^+$,11/2$^+$) | 834.2 *2* | 53.9 *77* | 2176.22 | (9/2$^+$) |
| | | 892.9 *1* | 84.6 *77* | 2116.95 | (7/2$^+$,9/2$^+$) |
| | | 1473.3[b] *3* | 24.6 *62* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 1715.5 *3* | 100 *31* | 1294.61 | (9/2$^+$) |
| 3018.4 | | 1480.7 *3* | 100 *27* | 1537.67 | (7/2$^+$,9/2$^+$) |
| 3023.5 | | 1141.9 *5* | 100 *20* | 1881.57 | (13/2$^+$) |
| 3029.17 | (9/2$^+$) | 887.5[b] *1* | 26.1 *22* | 2141.10 | (13/2$^+$) |
| | | 912.1 *1* | 69.6 *65* | 2116.95 | (7/2$^+$,9/2$^+$) |
| | | 1030.7 *1* | 30.4 *44* | 1998.67 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1085.8 *1* | 45.6 *44* | 1943.46 | (11/2$^+$) |
| | | 1147.8 *2* | 41.3 *44* | 1881.57 | (13/2$^+$) |
| | | 1246.7 *3* | 6.3 *15* | 1782.30 | (5/2$^+$) |
| | | 1492.1[b] *1* | 6.5 *15* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 1734.9[b] *1* | 100 *9* | 1294.61 | (9/2$^+$) |
| | | 2342.8 *3* | 32.6 *44* | 686.62 | (7/2$^+$) |
| | | 3028.8 *3* | 17.4 *22* | 0.0 | (5/2$^+$) |
| 3066.31 | | 1284.0 *2* | 100 *18* | 1782.30 | (5/2$^+$) |
| 3067.9 | | 1530.2 *4* | 100 *33* | 1537.67 | (7/2$^+$,9/2$^+$) |
| 3086.48 | | 1204.9 *2* | 100 *82* | 1881.57 | (13/2$^+$) |
| 3097.27 | | 591.3 *1* | 100 *16* | 2505.97 | (9/2$^+$) |
| 3101.55 | (7/2$^+$,9/2$^+$) | 724.9 *2* | 4.7 *13* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 817.5 *3* | 4.5 *15* | 2283.41 | (5/2$^+$) |
| | | 925.4 *1* | 25.4 *36* | 2176.22 | (9/2$^+$) |





$^{97}_{46}Pd_{51}$-9

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ | Mult.[†] |
|---|---|---|---|---|---|---|
| 3101.55 | (7/2$^+$,9/2$^+$) | 1103.0 *1* | 100 *9* | 1998.67 | (5/2$^+$,7/2$^+$,9/2$^+$) | |
| | | 1319.2 *3* | 7.1 *13* | 1782.30 | (5/2$^+$) | |
| | | 2057.7 *2* | 16.4 *18* | 1043.71 | (7/2$^+$) | |
| | | 2414.2 *3* | 27.3 *36* | 686.62 | (7/2$^+$) | |
| 3105.52 | (13/2$^+$,15/2$^+$) | 861.3 *2* | 100 *14* | 2244.21 | (17/2$^+$) | |
| 3118.3 | | 2431.6 *12* | 100 *33* | 686.62 | (7/2$^+$) | |
| 3147.74 | | 2104.0 *2* | 100 *14* | 1043.71 | (7/2$^+$) | |
| 3156.97 | (9/2$^+$,11/2$^+$) | 651.4 *2* | 27.3 *46* | 2505.97 | (9/2$^+$) | |
| | | 761.4 *2* | 22.7 *46* | 2395.68 | (11/2$^+$) | |
| | | 781.2 *1* | 100 *9* | 2375.75 | (9/2$^+$,11/2$^+$,13/2$^+$) | |
| | | 980.6 *1* | 95.5 *91* | 2176.22 | (9/2$^+$) | |
| | | 1016.1 *3* | 18.2 *46* | 2141.10 | (13/2$^+$) | |
| | | 1275.4 *1* | 45.5 *46* | 1881.57 | (13/2$^+$) | |
| 3192.43 | (9/2$^+$,11/2$^+$) | 686.3 *1* | 100 *15* | 2505.97 | (9/2$^+$) | |
| | | 796.4 *2* | 26.9 *39* | 2395.68 | (11/2$^+$) | |
| | | 848.7[b] *2* | 13.1 *27* | 2344.81 | (7/2$^+$,9/2$^+$) | |
| | | 1654.8 *3* | 34.6 *77* | 1537.67 | (7/2$^+$,9/2$^+$) | |
| | | 1897.8 *3* | 6.9 *12* | 1294.61 | (9/2$^+$) | |
| | | 2505.9 *3* | 38 *12* | 686.62 | (7/2$^+$) | |
| 3209.00 | (13/2$^+$) | 586.9[b] *1* | 29.8 *43* | 2622.73 | (11/2$^+$,13/2$^+$) | |
| | | 837.2 *1* | 100 *9* | 2371.64 | (15/2$^+$) | |
| | | 1067.9 *4* | 25.5 *21* | 2141.10 | (13/2$^+$) | |
| | | 1265.2[b] *1* | 34.0 *43* | 1943.46 | (11/2$^+$) | |
| 3226.58 | | 1345.0 *1* | 100 *22* | 1881.57 | (13/2$^+$) | |
| 3251.6 | (23/2) | 611.8[a] *5* | 100 | 2639.78 | (21/2$^+$) | D |
| 3280.26 | (5/2$^+$,7/2$^+$,9/2$^+$) | 904.1 *2* | 40.9 *46* | 2375.75 | (9/2$^+$,11/2$^+$,13/2$^+$) | |
| | | 3280.6 *2* | 100 *9* | 0.0 | (5/2$^+$) | |
| 3295.69 | (11/2$^+$) | 616.1 *1* | 31.0 *40* | 2679.53 | (9/2$^+$,11/2$^+$) | |
| | | 708.2 *1* | 55.0 *40* | 2587.61 | (13/2$^+$) | |
| | | 900.2 *1* | 22.0 *20* | 2395.68 | (11/2$^+$) | |
| | | 920.1 *1* | 14.0 *10* | 2375.75 | (9/2$^+$,11/2$^+$,13/2$^+$) | |
| | | 950.7 *3* | 100 *20* | 2344.81 | (7/2$^+$,9/2$^+$) | |
| | | 1063.8 *2* | 18.0 *30* | 2231.54 | (11/2$^+$,13/2$^+$) | |
| | | 1119.4 *1* | 60.0 *60* | 2176.22 | (9/2$^+$) | |
| | | 1352.7 *2* | 28.0 *40* | 1943.46 | (11/2$^+$) | |
| | | 1413.9 *1* | 14.0 *20* | 1881.57 | (13/2$^+$) | |
| | | 2609.2 *1* | 62.0 *50* | 686.62 | (7/2$^+$) | |
| 3303.6 | | 1127.4 *3* | 100 *25* | 2176.22 | (9/2$^+$) | |
| 3329.79 | | 953.4 *2* | 9.8 *20* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) | |
| | | 985.2 *2* | 9.8 *20* | 2344.81 | (7/2$^+$,9/2$^+$) | |
| | | 2643.2 *1* | 100 *8* | 686.62 | (7/2$^+$) | |





$^{97}_{46}Pd_{51}$-10

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ |
|---|---|---|---|---|---|
| 3351.11 | (11/2$^+$) | 469.5 *2* | 10.5 *12* | 2881.79 | (9/2$^+$,11/2$^+$) |
| | | 671.4 *2* | 12.8 *23* | 2679.53 | (9/2$^+$,11/2$^+$) |
| | | 763.6 *1* | 36.0 *35* | 2587.61 | (13/2$^+$) |
| | | 955.4 *1* | 22.1 *35* | 2395.68 | (11/2$^+$) |
| | | 1119.4 *2* | 9.3 *23* | 2231.54 | (11/2$^+$,13/2$^+$) |
| | | 1174.8 *1* | 25.6 *23* | 2176.22 | (9/2$^+$) |
| | | 1210.1 *1* | 32.6 *35* | 2141.10 | (13/2$^+$) |
| | | 1407.6 *1* | 100 *8* | 1943.46 | (11/2$^+$) |
| | | 1469.5 *2* | 4.0 *8* | 1881.57 | (13/2$^+$) |
| | | 2308.3[b] *3* | 3.5 *5* | 1043.71 | (7/2$^+$) |
| | | 2664.0 *2* | 70 *12* | 686.62 | (7/2$^+$) |
| 3353.75 | (7/2$^+$,9/2$^+$) | 554.7 *2* | 1.5 *5* | 2799.30 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 976.8 *3* | 4.6 *8* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1009.5 *2* | 3.6 *6* | 2344.81 | (7/2$^+$,9/2$^+$) |
| | | 1178.9 *5* | 2.3 *7* | 2176.22 | (9/2$^+$) |
| | | 1179.2 *2* | 3.3 *7* | 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1571.2 *2* | 10.0 *15* | 1782.30 | (5/2$^+$) |
| | | 1816.1 *2* | 7.7 *8* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 2059.1 *3* | 6.9 *15* | 1294.61 | (9/2$^+$) |
| | | 2666.8 *1* | 100 *8* | 686.62 | (7/2$^+$) |
| | | 3353.5 *1* | 59.2 *39* | 0.0 | (5/2$^+$) |
| 3362.33 | | 1419.0 *2* | 100 *14* | 1943.46 | (11/2$^+$) |
| 3373.53 | (9/2$^+$) | 751.2 *2* | 27.8 *56* | 2622.73 | (11/2$^+$,13/2$^+$) |
| | | 786.1 *1* | 100 *8* | 2587.61 | (13/2$^+$) |
| | | 997.8 *1* | 47.2 *56* | 2375.75 | (9/2$^+$,11/2$^+$,13/2$^+$) |
| | | 1233.2[b] *2* | 9.4 *25* | 2141.10 | (13/2$^+$) |
| | | 1492.6[b] *2* | 13.1 *22* | 1881.57 | (13/2$^+$) |
| | | 2330.2 *2* | 8.1 *14* | 1043.71 | (7/2$^+$) |
| | | 3374.1[b] *2* | 27.8 *28* | 0.0 | (5/2$^+$) |
| 3382.80 | (7/2$^+$,9/2$^+$) | 551.8 *2* | 5.2 *9* | 2831.02 | (9/2$^+$,11/2$^+$,13/2$^+$) |
| | | 877.1 *1* | 20.0 *17* | 2505.97 | (9/2$^+$) |
| | | 1006.1 *1* | 12.2 *17* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1037.9 *1* | 14.8 *17* | 2344.81 | (7/2$^+$,9/2$^+$) |
| | | 1151.5 *1* | 5.6 *7* | 2231.54 | (11/2$^+$,13/2$^+$) |
| | | 1206.5 *1* | 19.1 *17* | 2176.22 | (9/2$^+$) |
| | | 1246.8[b] *3* | 7.0 *17* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 1439.3 *2* | 3.5 *9* | 1943.46 | (11/2$^+$) |
| | | 2696.1 *1* | 58.3 *44* | 686.62 | (7/2$^+$) |
| | | 3382.6 *1* | 100 *5* | 0.0 | (5/2$^+$) |
| 3406.8 | | 2631.8 *4* | 100 *14* | 774.97 | (1/2$^+$) |





$^{97}_{46}Pd_{51}$-11

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ |
|---|---|---|---|---|---|
| 3429.44 | | 1294.8 *2* | 100 *13* | 2134.63 | (7/2$^+$,9/2$^+$) |
| 3434.16 | | 2747.5 *2* | 100 *8* | 686.62 | (7/2$^+$) |
| 3473.12 | (7/2$^+$,9/2$^+$,11/2$^+$) | 868.4 *2* | 7.7 *15* | 2604.92 | |
| | | 967.6 *2* | 10.0 *15* | 2505.97 | (9/2$^+$) |
| | | 1096.7 *2* | 4.2 *7* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1241.5 *1* | 9.2 *15* | 2231.54 | (11/2$^+$,13/2$^+$) |
| | | 1297.2 *2* | 3.9 *8* | 2176.22 | (9/2$^+$) |
| | | 1356.3 *3* | 2.7 *5* | 2116.95 | (7/2$^+$,9/2$^+$) |
| | | 2786.3 *1* | 100 *8* | 686.62 | (7/2$^+$) |
| 3496.04 | (7/2$^+$,9/2$^+$) | 2201.8 *5* | 50 *17* | 1294.61 | (9/2$^+$) |
| | | 2809.4 *4* | 100 *8* | 686.62 | (7/2$^+$) |
| | | 3495.7 *4* | 91.7 *83* | 0.0 | (5/2$^+$) |
| 3502.99 | (7/2$^+$,9/2$^+$,11/2$^+$) | 823.2 *2* | 68.2 *91* | 2679.53 | (9/2$^+$,11/2$^+$) |
| | | 881.1[b] *2* | 22.7 *46* | 2622.73 | (11/2$^+$,13/2$^+$) |
| | | 997.1 *2* | 91 *14* | 2505.97 | (9/2$^+$) |
| | | 1126.0 *2* | 36.4 *46* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1326.3 *3* | 22.7 *46* | 2176.22 | (9/2$^+$) |
| | | 1965.2 *2* | 100 *9* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 2208.3 *2* | 24.1 *32* | 1294.61 | (9/2$^+$) |
| | | 2816.4 *2* | 40.9 *46* | 686.62 | (7/2$^+$) |
| 3548.67 | | 2862.0 *1* | 100 *18* | 686.62 | (7/2$^+$) |
| 3558.41 | (9/2$^+$,11/2$^+$) | 1052.5 *2* | 100 *9* | 2505.97 | (9/2$^+$) |
| | | 1162.5 *2* | 54.5 *91* | 2395.68 | (11/2$^+$) |
| | | 1182.8 *1* | 33.6 *55* | 2375.75 | (9/2$^+$,11/2$^+$,13/2$^+$) |
| | | 1615.2 *3* | 30.0 *73* | 1943.46 | (11/2$^+$) |
| | | 1676.6 *2* | 72.7 *91* | 1881.57 | (13/2$^+$) |
| | | 2262.6 *4* | 64 *18* | 1294.61 | (9/2$^+$) |
| 3577.12 | (9/2$^+$,11/2$^+$) | 735.4[b] *3* | 6.5 *32* | 2842.84 | |
| | | 1071.3 *3* | 16.1 *32* | 2505.97 | (9/2$^+$) |
| | | 1181.8 *2* | 18.1 *29* | 2395.68 | (11/2$^+$) |
| | | 1200.4 *1* | 61.3 *65* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1345.3 *1* | 34.8 *29* | 2231.54 | (11/2$^+$,13/2$^+$) |
| | | 1460.6 *2* | 32.3 *65* | 2116.95 | (7/2$^+$,9/2$^+$) |
| | | 1633.5 *2* | 12.9 *29* | 1943.46 | (11/2$^+$) |
| | | 1695.5 *2* | 10.3 *23* | 1881.57 | (13/2$^+$) |
| | | 2282.6 *2* | 9.7 *32* | 1294.61 | (9/2$^+$) |
| | | 2890.5 *2* | 100 *13* | 686.62 | (7/2$^+$) |
| 3578.1 | (21/2$^+$) | 1109.0[a] *5* | 100 | 2469.05 | (19/2$^+$) |
| 3591.02 | (9/2$^+$,11/2$^+$) | 1195.5 *1* | 43.8 *63* | 2395.68 | (11/2$^+$) |
| | | 1414.8 *2* | 100 *13* | 2176.22 | (9/2$^+$) |
| | | 1456.4 *5* | 25 *13* | 2134.63 | (7/2$^+$,9/2$^+$) |





$^{97}_{46}Pd_{51}$-12

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ |
|---|---|---|---|---|---|
| 3591.02 | (9/2$^+$,11/2$^+$) | 1646.9 *4* | 35.6 *56* | 1943.46 | (11/2$^+$) |
| | | 1709.3 *1* | 81.3 *63* | 1881.57 | (13/2$^+$) |
| 3622.08 | | 1678.6 *1* | 100 *19* | 1943.46 | (11/2$^+$) |
| 3626.29 | (7/2$^+$,9/2$^+$,11/2$^+$) | 597.5 *2* | 100 *13* | 3029.17 | (9/2$^+$) |
| | | 1119.9 *2* | 60.9 *87* | 2505.97 | (9/2$^+$) |
| | | 1250.4 *2* | 16.1 *26* | 2375.75 | (9/2$^+$,11/2$^+$,13/2$^+$) |
| | | 1450.3 *3* | 21.3 *35* | 2176.22 | (9/2$^+$) |
| | | 2939.7 *3* | 26.1 *87* | 686.62 | (7/2$^+$) |
| 3676.0 | (21/2$^+$,23/2$^+$) | 1036.0[a] *4* | 52 *13* | 2639.78 | (21/2$^+$) |
| | | 1207.2[a] *5* | 100 *9* | 2469.05 | (19/2$^+$) |
| 3686.57 | | 1204.8 *2* | 100 *14* | 2481.88 | (13/2$^+$) |
| | | 1804.7 *3* | 63 *10* | 1881.57 | (13/2$^+$) |
| 3704.77 | | 3018.1 *2* | 100 *15* | 686.62 | (7/2$^+$) |
| 3712.77 | | 1595.8 *3* | 100 *22* | 2116.95 | (7/2$^+$,9/2$^+$) |
| | | 1769.3 *3* | 26.7 *44* | 1943.46 | (11/2$^+$) |
| 3739.98 | (11/2$^+$) | 444.4 *1* | 14.0 *13* | 3295.69 | (11/2$^+$) |
| | | 531.3[b] *1* | 19.6 *16* | 3209.00 | (13/2$^+$) |
| | | 710.9 *1* | 10.4 *11* | 3029.17 | (9/2$^+$) |
| | | 738.5 *1* | 10.0 *9* | 3001.56 | (13/2$^+$) |
| | | 850.1 *1* | 21.1 *18* | 2890.00 | (11/2$^+$) |
| | | 858.8[b] *2* | 1.6 *2* | 2881.79 | (9/2$^+$,11/2$^+$) |
| | | 1060.1 *3* | 2.4 *7* | 2679.53 | (9/2$^+$,11/2$^+$) |
| | | 1117.1 *2* | 3.3 *7* | 2622.73 | (11/2$^+$,13/2$^+$) |
| | | 1152.4 *1* | 28.2 *20* | 2587.61 | (13/2$^+$) |
| | | 1156.4 *2* | 3.1 *2* | 2583.27 | |
| | | 1233.5[b] *1* | 5.8 *13* | 2505.97 | (9/2$^+$) |
| | | 1244.4 *3* | 1.1 *2* | 2495.98 | (7/2$^+$,9/2$^+$) |
| | | 1344.2 *1* | 10.9 *9* | 2395.68 | (11/2$^+$) |
| | | 1364.1 *1* | 22.7 *18* | 2375.75 | (9/2$^+$,11/2$^+$,13/2$^+$) |
| | | 1395.0 *3* | 1.3 *2* | 2344.81 | (7/2$^+$,9/2$^+$) |
| | | 1508.5 *2* | 3.1 *4* | 2231.54 | (11/2$^+$,13/2$^+$) |
| | | 1563.7 *1* | 44.4 *22* | 2176.22 | (9/2$^+$) |
| | | 1598.8 *2* | 3.6 *4* | 2141.10 | (13/2$^+$) |
| | | 1605.2 *2* | 4.7 *7* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 1623.1 *1* | 2.0 *2* | 2116.95 | (7/2$^+$,9/2$^+$) |
| | | 1796.5 *1* | 15.3 *13* | 1943.46 | (11/2$^+$) |
| | | 1858.3 *2* | 0.6 *2* | 1881.57 | (13/2$^+$) |
| | | 2203.7 *5* | 0.9 *2* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 2445.3 *2* | 3.3 *4* | 1294.61 | (9/2$^+$) |
| | | 3053.2 *1* | 100 *7* | 686.62 | (7/2$^+$) |
| 3759.39 | | 1363.7 *2* | 100 *14* | 2395.68 | (11/2$^+$) |





$^{97}_{46}Pd_{51}$-13

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ | Mult.[†] | α[c] | Comments |
|---|---|---|---|---|---|---|---|---|
| 3763.27 | (7/2$^+$,9/2$^+$) | 2468.2 *2* | 11.1 *28* | 1294.61 | (9/2$^+$) | | | |
| | | 3763.3 *1* | 100 *8* | 0.0 | (5/2$^+$) | | | |
| 3775.6 | | 2731.8 *8* | 100 *23* | 1043.71 | (7/2$^+$) | | | |
| 3781.9 | | 1437.1 *3* | 100 *23* | 2344.81 | (7/2$^+$,9/2$^+$) | | | |
| 3790.46 | (7/2$^+$,9/2$^+$,11/2$^+$) | 907.7 *3* | 11.3 *38* | 2881.79 | (9/2$^+$,11/2$^+$) | | | |
| | | 990.7 *2* | 13.2 *19* | 2799.30 | (5/2$^+$,7/2$^+$,9/2$^+$) | | | |
| | | 1284.6 *1* | 49.1 *38* | 2505.97 | (9/2$^+$) | | | |
| | | 1614.3 *1* | 8.9 *17* | 2176.22 | (9/2$^+$) | | | |
| | | 1615.9 *2* | 9.4 *19* | 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) | | | |
| | | 1673.0 *2* | 7.9 *17* | 2116.95 | (7/2$^+$,9/2$^+$) | | | |
| | | 1791.9 *1* | 100 *9* | 1998.67 | (5/2$^+$,7/2$^+$,9/2$^+$) | | | |
| | | 2008.3 *2* | 24.5 *38* | 1782.30 | (5/2$^+$) | | | |
| | | 2252.2 *3* | 5.5 *17* | 1537.67 | (7/2$^+$,9/2$^+$) | | | |
| | | 2495.8 *1* | 100 *9* | 1294.61 | (9/2$^+$) | | | |
| | | 2746.7 *1* | 73.6 *76* | 1043.71 | (7/2$^+$) | | | |
| | | 3103.7 *1* | 83.0 *76* | 686.62 | (7/2$^+$) | | | |
| 3810.7 | (25/2$^+$) | 134.66[a] *22* | 4.7 *5* | 3676.0 | (21/2$^+$,23/2$^+$) | D | | |
| | | 1170.98[a] *25* | 100 *6* | 2639.78 | (21/2$^+$) | (E2) | 7.16×10$^{-4}$ | α(K)=0.000623 *9*; α(L)=7.27×10$^{-5}$ *11*; α(M)=1.362×10$^{-5}$ *19*; α(N+..)=6.39×10$^{-6}$ *10* α(N)=2.29×10$^{-6}$ *4*; α(IPF)=4.10×10$^{-6}$ *7* |
| 3814.7 | | 3814.6 *6* | 100 *14* | 0.0 | (5/2$^+$) | | | |
| 3827.79 | (7/2$^+$,9/2$^+$,11/2$^+$) | 1431.9 *3* | 13.9 *23* | 2395.68 | (11/2$^+$) | | | |
| | | 1451.1 *2* | 32.6 *47* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) | | | |
| | | 1482.9 *2* | 32.6 *47* | 2344.81 | (7/2$^+$,9/2$^+$) | | | |
| | | 1596.2 *1* | 100 *7* | 2231.54 | (11/2$^+$,13/2$^+$) | | | |
| | | 1651.5 *2* | 23.3 *23* | 2176.22 | (9/2$^+$) | | | |
| | | 1653.1 *4* | 3.5 *9* | 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) | | | |
| | | 1693.3 *2* | 30.2 *47* | 2134.63 | (7/2$^+$,9/2$^+$) | | | |
| | | 1711.0 *1* | 20.9 *23* | 2116.95 | (7/2$^+$,9/2$^+$) | | | |
| | | 1885.2 *4* | 3.7 *16* | 1943.46 | (11/2$^+$) | | | |
| | | 2289.7 *2* | 20.9 *23* | 1537.67 | (7/2$^+$,9/2$^+$) | | | |
| | | 3140.8 *2* | 48.8 *70* | 686.62 | (7/2$^+$) | | | |
| 3841.98 | | 3155.3 *2* | 100 *17* | 686.62 | (7/2$^+$) | | | |
| 3856.46 | | 1680.4 *3* | 22.5 *75* | 2176.22 | (9/2$^+$) | | | |
| | | 1681.3 *3* | 15.0 *50* | 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) | | | |
| | | 3169.8 *1* | 100 *13* | 686.62 | (7/2$^+$) | | | |
| 3858.65 | | 1724.0 *1* | 100 *9* | 2134.63 | (7/2$^+$,9/2$^+$) | | | |
| 3865.42 | (9/2$^+$,11/2$^+$) | 569.8 *1* | 100 *6* | 3295.69 | (11/2$^+$) | | | |
| | | 1730.1 *3* | 6.2 *13* | 2134.63 | (7/2$^+$,9/2$^+$) | | | |
| 3925.56 | (9/2$^+$) | 630.0 *3* | 81 *19* | 3295.69 | (11/2$^+$) | | | |
| | | 1549.1 *2* | 28.6 *48* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) | | | |





$^{97}_{46}Pd_{51}$-14

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ |
|---|---|---|---|---|---|
| 3925.56 | (9/2$^+$) | 2630.9 *3* | 42.9 *95* | 1294.61 | (9/2$^+$) |
| | | 2881.8 *5* | 10.9 *33* | 1043.71 | (7/2$^+$) |
| | | 3238.6 *2* | 100 *14* | 686.62 | (7/2$^+$) |
| | | 3926.0 *6* | 28.6 *48* | 0.0 | (5/2$^+$) |
| 3953.9 | (5/2$^+$,7/2$^+$,9/2$^+$) | 1777.7 *3* | 100 *25* | 2176.22 | (9/2$^+$) |
| 3967.5 | | 1622.7 *4* | 100 *27* | 2344.81 | (7/2$^+$,9/2$^+$) |
| 3983.25 | (9/2$^+$) | 653.7 *1* | 6.2 *7* | 3329.79 | |
| | | 790.4 *3* | 1.1 *3* | 3192.43 | (9/2$^+$,11/2$^+$) |
| | | 881.7 *1* | 4.1 *7* | 3101.55 | (7/2$^+$,9/2$^+$) |
| | | 954.5 *2* | 6.2 *7* | 3029.17 | (9/2$^+$) |
| | | 973.3 *2* | 2.4 *7* | 3010.02 | (7/2$^+$,9/2$^+$,11/2$^+$) |
| | | 1101.5 *2* | 3.8 *7* | 2881.79 | (9/2$^+$,11/2$^+$) |
| | | 1140.3 *2* | 1.7 *7* | 2842.84 | |
| | | 1152.4 *4* | 4.8 *14* | 2831.02 | (9/2$^+$,11/2$^+$,13/2$^+$) |
| | | 1303.7 *3* | 2.4 *7* | 2679.53 | (9/2$^+$,11/2$^+$) |
| | | 1360.2[b] *1* | 3.1 *3* | 2622.73 | (11/2$^+$,13/2$^+$) |
| | | 1638.4 *3* | 2.1 *3* | 2344.81 | (7/2$^+$,9/2$^+$) |
| | | 1698.8[b] *2* | 0.9 *2* | 2283.41 | (5/2$^+$) |
| | | 1752.0[b] *1* | 8.3 *7* | 2231.54 | (11/2$^+$,13/2$^+$) |
| | | 1807.5 *3* | 3.5 *7* | 2176.22 | (9/2$^+$) |
| | | 1842.7 *2* | 1.8 *3* | 2141.10 | (13/2$^+$) |
| | | 1848.5 *1* | 2.4 *3* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 1865.4 *3* | 1.8 *3* | 2116.95 | (7/2$^+$,9/2$^+$) |
| | | 1984.0 *4* | 1.0 *2* | 1998.67 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 2039.8 *1* | 9.0 *10* | 1943.46 | (11/2$^+$) |
| | | 2200.9 *3* | 1.4 *3* | 1782.30 | (5/2$^+$) |
| | | 2445.0 *5* | 1.0 *3* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 2688.5 *2* | 9.3 *10* | 1294.61 | (9/2$^+$) |
| | | 3296.6 *1* | 100 *7* | 686.62 | (7/2$^+$) |
| 4013.61 | (7/2$^+$,9/2$^+$) | 1131.7 *4* | 56 *11* | 2881.79 | (9/2$^+$,11/2$^+$) |
| | | 1636.9 *3* | 44 *11* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1668.7 *4* | 25.6 *56* | 2344.81 | (7/2$^+$,9/2$^+$) |
| | | 1729.4 *3* | 56 *11* | 2283.41 | (5/2$^+$) |
| | | 1880.0 *5* | 78 *22* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 3328.0 *4* | 100 *11* | 686.62 | (7/2$^+$) |
| 4019.10 | (9/2$^+$,11/2$^+$) | 656.8 *1* | 14.9 *17* | 3362.33 | |
| | | 1137.4 *1* | 100 *10* | 2881.79 | (9/2$^+$,11/2$^+$) |
| | | 1189.0[b] *2* | 17.1 *24* | 2831.02 | (9/2$^+$,11/2$^+$,13/2$^+$) |
| | | 1339.5 *2* | 34.1 *49* | 2679.53 | (9/2$^+$,11/2$^+$) |
| | | 1395.9[b] *1* | 21.9 *24* | 2622.73 | (11/2$^+$,13/2$^+$) |





$^{97}_{46}Pd_{51}$-15

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ |
|---|---|---|---|---|---|
| 4019.10 | (9/2$^+$,11/2$^+$) | 1431.6 *2* | 11.5 *12* | 2587.61 | (13/2$^+$) |
| | | 1513.3 *1* | 58.5 *49* | 2505.97 | (9/2$^+$) |
| | | 1623.4 *2* | 8.3 *15* | 2395.68 | (11/2$^+$) |
| | | 1643.0 *2* | 12.4 *22* | 2375.75 | (9/2$^+$,11/2$^+$,13/2$^+$) |
| | | 1842.7 *1* | 85.4 *73* | 2176.22 | (9/2$^+$) |
| | | 1878.1 *1* | 31.7 *49* | 2141.10 | (13/2$^+$) |
| | | 1885.0 *3* | 31.7 *49* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 2076.2 *2* | 17.1 *24* | 1943.46 | (11/2$^+$) |
| | | 2137.2 *2* | 10.5 *17* | 1881.57 | (13/2$^+$) |
| | | 2480.3 *4* | 12.2 *24* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 2723.9 *4* | 12.2 *24* | 1294.61 | (9/2$^+$) |
| 4040.19 | (7/2$^+$,9/2$^+$) | 1240.6 *2* | 19.6 *44* | 2799.30 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1435.4 *2* | 45.6 *65* | 2604.92 | |
| | | 1533.8[b] *1* | 7.6 *13* | 2505.97 | (9/2$^+$) |
| | | 1663.8 *2* | 26.1 *44* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1694.9 *4* | 8.7 *22* | 2344.81 | (7/2$^+$,9/2$^+$) |
| | | 1864.4 *4* | 3.0 *11* | 2176.22 | (9/2$^+$) |
| | | 1865.7 *2* | 15.2 *22* | 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 2041.4 *1* | 100 *9* | 1998.67 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 2258.0 *2* | 19.6 *44* | 1782.30 | (5/2$^+$) |
| | | 2328.8[b] *2* | 10.9 *22* | 1712.01 | (5/2$^+$) |
| | | 2502.6 *2* | 19.6 *22* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 2745.5 *3* | 13.0 *22* | 1294.61 | (9/2$^+$) |
| | | 3353.6 *1* | 21.7 *44* | 686.62 | (7/2$^+$) |
| | | 4040.5 *2* | 34.8 *44* | 0.0 | (5/2$^+$) |
| 4053.03 | (7/2$^+$,9/2$^+$,11/2$^+$) | 1547.2 *1* | 100 *14* | 2505.97 | (9/2$^+$) |
| | | 1656.9 *2* | 50.0 *86* | 2395.68 | (11/2$^+$) |
| | | 1708.2 *3* | 48 *14* | 2344.81 | (7/2$^+$,9/2$^+$) |
| | | 1918.2 *5* | 86 *34* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 2758.5 *9* | 78 *16* | 1294.61 | (9/2$^+$) |
| | | 3366.3 *1* | 95 *14* | 686.62 | (7/2$^+$) |
| 4068.51 | | 1562.8 *2* | 100 *16* | 2505.97 | (9/2$^+$) |
| | | 2530.2 *3* | 36 *14* | 1537.67 | (7/2$^+$,9/2$^+$) |
| 4105.34 | (7/2$^+$,9/2$^+$) | 750.8[b] *2* | 6.3 *11* | 3353.75 | (7/2$^+$,9/2$^+$) |
| | | 1212.1 *2* | 10.7 *13* | 2893.21 | |
| | | 1306.1 *2* | 18.7 *27* | 2799.30 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1728.7 *2* | 20.0 *27* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1760.7 *2* | 10.7 *13* | 2344.81 | (7/2$^+$,9/2$^+$) |
| | | 1929.4 *4* | 4.5 *9* | 2176.22 | (9/2$^+$) |
| | | 1971.3 *3* | 16.0 *27* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 2568.5 *3* | 6.7 *13* | 1537.67 | (7/2$^+$,9/2$^+$) |





$^{97}_{46}Pd_{51}$-16

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ |
|---|---|---|---|---|---|
| 4105.34 | (7/2$^+$,9/2$^+$) | 2810.5 *3* | 14.7 *27* | 1294.61 | (9/2$^+$) |
| | | 3418.6 *1* | 100 *8* | 686.62 | (7/2$^+$) |
| | | 4105.5 *3* | 8.0 *13* | 0.0 | (5/2$^+$) |
| 4123.24 | (9/2$^+$) | 931.6 *3* | 22.1 *57* | 3192.43 | (9/2$^+$,11/2$^+$) |
| | | 1113.6 *3* | 21.4 *71* | 3010.02 | (7/2$^+$,9/2$^+$,11/2$^+$) |
| | | 1517.5 *5* | 28.6 *71* | 2604.92 | |
| | | 1891.6 *1* | 100 *7* | 2231.54 | (11/2$^+$,13/2$^+$) |
| | | 1982.1 *2* | 22.9 *29* | 2141.10 | (13/2$^+$) |
| | | 3436.5 *2* | 86 *14* | 686.62 | (7/2$^+$) |
| | | 4123.5 *9* | 21.4 *71* | 0.0 | (5/2$^+$) |
| 4125.47 | (11/2$^+$) | 652.9 *2* | 5.9 *18* | 3473.12 | (7/2$^+$,9/2$^+$,11/2$^+$) |
| | | 916.2 *1* | 55.9 *59* | 3209.00 | (13/2$^+$) |
| | | 1096.0 *2* | 100 *15* | 3029.17 | (9/2$^+$) |
| | | 1244.1 *3* | 12.7 *27* | 2881.79 | (9/2$^+$,11/2$^+$) |
| | | 1317.5 *2* | 12.3 *18* | 2808.00 | |
| | | 1446.1 *2* | 29 *12* | 2679.53 | (9/2$^+$,11/2$^+$) |
| | | 1502.6 *1* | 17.6 *24* | 2622.73 | (11/2$^+$,13/2$^+$) |
| | | 1620.1 *4* | 7.9 *21* | 2505.97 | (9/2$^+$) |
| | | 1730.1 *2* | 20.6 *29* | 2395.68 | (11/2$^+$) |
| | | 1991.7[b] *2* | 73.5 *88* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 2243.6 *5* | 3.8 *9* | 1881.57 | (13/2$^+$) |
| | | 2829.9[b] *3* | 26.5 *29* | 1294.61 | (9/2$^+$) |
| 4142.66 | (9/2$^+$,11/2$^+$) | 1311.7 *1* | 100 *7* | 2831.02 | (9/2$^+$,11/2$^+$,13/2$^+$) |
| | | 1797.9 *2* | 57.1 *71* | 2344.81 | (7/2$^+$,9/2$^+$) |
| | | 1911.2 *2* | 56.4 *64* | 2231.54 | (11/2$^+$,13/2$^+$) |
| | | 1965.9 *2* | 71 *14* | 2176.22 | (9/2$^+$) |
| | | 2001.6 *2* | 45.7 *64* | 2141.10 | (13/2$^+$) |
| | | 2008.1 *5* | 28.6 *71* | 2134.63 | (7/2$^+$,9/2$^+$) |
| 4176.9 | | 2042.2 *4* | 100 *50* | 2134.63 | (7/2$^+$,9/2$^+$) |
| 4193.78 | (7/2$^+$,9/2$^+$,11/2$^+$) | 2059.1 *3* | 35.0 *64* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 2412.1 *5* | 15.0 *43* | 1782.30 | (5/2$^+$) |
| | | 3507.0 *2* | 100 *14* | 686.62 | (7/2$^+$) |
| 4219.13 | (7/2$^+$,9/2$^+$) | 1612.9[b] *2* | 50.0 *83* | 2604.92 | |
| | | 1873.4 *4* | 11.1 *28* | 2344.81 | (7/2$^+$,9/2$^+$) |
| | | 1935.7 *2* | 6.9 *22* | 2283.41 | (5/2$^+$) |
| | | 2044.1[b] *2* | 52.8 *56* | 2176.22 | (9/2$^+$) |
| | | 2045.1 *3* | 7.8 *22* | 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 2084.4 *2* | 100 *11* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 2219.7[b] *2* | 19.4 *28* | 1998.67 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 2436.5 *3* | 10.8 *25* | 1782.30 | (5/2$^+$) |





$^{97}_{46}Pd_{51}$-17

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ |
|---|---|---|---|---|---|
| 4219.13 | (7/2$^+$,9/2$^+$) | 2682.9[b] *4* | 13.9 *28* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 2924.2 *5* | 9.7 *22* | 1294.61 | (9/2$^+$) |
| | | 3533.1[b] *2* | 41.7 *56* | 686.62 | (7/2$^+$) |
| | | 4218.2 *7* | 19.4 *28* | 0.0 | (5/2$^+$) |
| 4256.1 | | 1425.1 *3* | 100 *17* | 2831.02 | (9/2$^+$,11/2$^+$,13/2$^+$) |
| 4264.39 | (11/2$^+$) | 1055.8 *2* | 100 *15* | 3209.00 | (13/2$^+$) |
| | | 1768.8 *2* | 53.9 *77* | 2495.98 | (7/2$^+$,9/2$^+$) |
| | | 2032.2[b] *2* | 43.1 *46* | 2231.54 | (11/2$^+$,13/2$^+$) |
| | | 2123.1 *3* | 28.5 *54* | 2141.10 | (13/2$^+$) |
| | | 2321.0 *2* | 61.5 *77* | 1943.46 | (11/2$^+$) |
| | | 2726.2 *3* | 12.3 *23* | 1537.67 | (7/2$^+$,9/2$^+$) |
| 4265.92 | (9/2$^+$) | 1376.0 *2* | 15.6 *26* | 2890.00 | (11/2$^+$) |
| | | 1423.0 *2* | 10.4 *26* | 2842.84 | |
| | | 1467.2 *3* | 10.4 *26* | 2799.30 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1890.2 *6* | 5.2 *13* | 2375.75 | (9/2$^+$,11/2$^+$,13/2$^+$) |
| | | 2089.5 *3* | 5.3 *9* | 2176.22 | (9/2$^+$) |
| | | 2091.4 *5* | 2.1 *8* | 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 2132.1 *3* | 11.7 *26* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 2484.1 *3* | 1.9 *6* | 1782.30 | (5/2$^+$) |
| | | 2553.2 *4* | 3.9 *13* | 1712.01 | (5/2$^+$) |
| | | 2970.5 *4* | 6.5 *13* | 1294.61 | (9/2$^+$) |
| | | 3223.3 *5* | 3.8 *8* | 1043.71 | (7/2$^+$) |
| | | 3579.1 *1* | 100 *8* | 686.62 | (7/2$^+$) |
| | | 4265.7 *2* | 27.3 *13* | 0.0 | (5/2$^+$) |
| 4285.65 | (7/2$^+$,9/2$^+$) | 930.6[b] *3* | 3.5 *9* | 3353.75 | (7/2$^+$,9/2$^+$) |
| | | 955.6 *2* | 5.2 *9* | 3329.79 | |
| | | 1256.9[b] *1* | 18.1 *26* | 3029.17 | (9/2$^+$) |
| | | 1442.9 *2* | 6.9 *17* | 2842.84 | |
| | | 1486.5 *2* | 12.1 *17* | 2799.30 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1909.4 *2* | 16.4 *17* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 2000.7[b] *3* | 3.5 *9* | 2283.41 | (5/2$^+$) |
| | | 2109.4 *4* | 4.3 *9* | 2176.22 | (9/2$^+$) |
| | | 2110.8 *3* | 4.3 *9* | 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 2151.4 *2* | 16.4 *26* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 2287.1 *3* | 10.3 *17* | 1998.67 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 2573.4 *2* | 2.8 *7* | 1712.01 | (5/2$^+$) |
| | | 2991.1 *3* | 9.5 *17* | 1294.61 | (9/2$^+$) |
| | | 3241.2 *3* | 5.2 *9* | 1043.71 | (7/2$^+$) |
| | | 3598.9 *1* | 100 *8* | 686.62 | (7/2$^+$) |
| | | 4285.6 *1* | 60.3 *35* | 0.0 | (5/2$^+$) |





$^{97}_{46}Pd_{51}$-18

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ |
|---|---|---|---|---|---|
| 4318.59 | (7/2$^+$,9/2$^+$) | 845.6 *2* | 5.8 *13* | 3473.12 | (7/2$^+$,9/2$^+$,11/2$^+$) |
| | | 946.0[b] *1* | 18.4 *53* | 3373.53 | (9/2$^+$) |
| | | 988.7 *2* | 15.8 *26* | 3329.79 | |
| | | 1428.6 *2* | 26.3 *53* | 2890.00 | (11/2$^+$) |
| | | 1713.3 *2* | 52.6 *79* | 2604.92 | |
| | | 1812.6 *2* | 10.8 *24* | 2505.97 | (9/2$^+$) |
| | | 1922.7 *2* | 23.7 *26* | 2395.68 | (11/2$^+$) |
| | | 1942.0 *3* | 11.6 *24* | 2376.62 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 1973.5 *2* | 18.4 *26* | 2344.81 | (7/2$^+$,9/2$^+$) |
| | | 2086.6[b] *1* | 15.0 *16* | 2231.54 | (11/2$^+$,13/2$^+$) |
| | | 2142.5 *2* | 26.3 *53* | 2176.22 | (9/2$^+$) |
| | | 2143.2 *3* | 7.4 *18* | 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 2535.4 *3* | 9.5 *18* | 1782.30 | (5/2$^+$) |
| | | 2780.5 *2* | 31.6 *53* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 3023.8 *1* | 100 *11* | 1294.61 | (9/2$^+$) |
| | | 3631.9 *2* | 89.5 *79* | 686.62 | (7/2$^+$) |
| | | 4318.2 *5* | 26.3 *26* | 0.0 | (5/2$^+$) |
| 4337.0 | | 3042.3 *4* | 100 *20* | 1294.61 | (9/2$^+$) |
| 4339.2 | | 2801.5 *3* | 100 *33* | 1537.67 | (7/2$^+$,9/2$^+$) |
| 4354.50 | (7/2$^+$,9/2$^+$,11/2$^+$) | 2219.7 *7* | 91 *27* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 2410.2 *6* | 64 *32* | 1943.46 | (11/2$^+$) |
| | | 2817.1 *4* | 36 *18* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 3667.9 *4* | 100 *23* | 686.62 | (7/2$^+$) |
| 4374.74 | (7/2$^+$,9/2$^+$) | 2199.4 *4* | 20.0 *50* | 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 2240.3 *2* | 100 *20* | 2134.63 | (7/2$^+$,9/2$^+$) |
| | | 2592.7 *5* | 22.0 *50* | 1782.30 | (5/2$^+$) |
| | | 2836.6 *3* | 48.0 *90* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 3688.1 *2* | 19.0 *50* | 686.62 | (7/2$^+$) |
| 4385.80 | | 2387.1 *2* | 100 *24* | 1998.67 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| 4413.49 | (7/2$^+$,9/2$^+$,11/2$^+$) | 585.7 *1* | 100 *12* | 3827.79 | (7/2$^+$,9/2$^+$,11/2$^+$) |
| 4420.2 | | 3645.2 *4* | 100 *14* | 774.97 | (1/2$^+$) |
| 4430.49 | (7/2$^+$,9/2$^+$,11/2$^+$) | 1135.2 *2* | 100 *22* | 3295.69 | (11/2$^+$) |
| | | 2891.6 *5* | 16.7 *44* | 1537.67 | (7/2$^+$,9/2$^+$) |
| | | 3134.4 *5* | 35.6 *78* | 1294.61 | (9/2$^+$) |
| 4435.82 | (7/2$^+$,9/2$^+$,11/2$^+$) | 2260.7 *4* | 36 *10* | 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) |
| | | 3749.3 *3* | 100 *13* | 686.62 | (7/2$^+$) |
| 4451.5 | (7/2$^+$,9/2$^+$,11/2$^+$) | 3764.8 *3* | 100 *17* | 686.62 | (7/2$^+$) |
| 4464.96 | (9/2$^+$) | 650.3 *3* | 6.1 *15* | 3814.7 | |
| | | 724.8 *2* | 39.4 *91* | 3739.98 | (11/2$^+$) |
| | | 991.5 *2* | 11.2 *27* | 3473.12 | (7/2$^+$,9/2$^+$,11/2$^+$) |
| | | 1082.0 *2* | 33.3 *61* | 3382.80 | (7/2$^+$,9/2$^+$) |





$^{97}_{46}Pd_{51}$-19

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ | Mult.[†] | α[c] | Comments |
|---|---|---|---|---|---|---|---|---|
| 4464.96 | (9/2$^+$) | 1111.5 *2* | 15.2 *30* | 3353.75 | (7/2$^+$,9/2$^+$) | | | |
| | | 1135.3 *2* | 39.4 *61* | 3329.79 | | | | |
| | | 1435.5 *2* | 51.5 *91* | 3029.17 | (9/2$^+$) | | | |
| | | 1621.9 *2* | 82 *12* | 2842.84 | | | | |
| | | 1634.7[b] *2* | 20.6 *27* | 2831.02 | (9/2$^+$,11/2$^+$,13/2$^+$) | | | |
| | | 1786.5[b] *2* | 18.2 *30* | 2679.53 | (9/2$^+$,11/2$^+$) | | | |
| | | 1842.2 *1* | 30.3 *30* | 2622.73 | (11/2$^+$,13/2$^+$) | | | |
| | | 1881.6 *1* | 48.5 *61* | 2583.27 | | | | |
| | | 1957.8[b] *3* | 12.4 *27* | 2505.97 | (9/2$^+$) | | | |
| | | 1968.6 *2* | 21.2 *61* | 2495.98 | (7/2$^+$,9/2$^+$) | | | |
| | | 2120.0 *3* | 21.2 *30* | 2344.81 | (7/2$^+$,9/2$^+$) | | | |
| | | 2233.8 *2* | 16.1 *24* | 2231.54 | (11/2$^+$,13/2$^+$) | | | |
| | | 2288.6 *2* | 39.4 *61* | 2176.22 | (9/2$^+$) | | | |
| | | 2290.4 *3* | 8.2 *24* | 2174.76 | (5/2$^+$,7/2$^+$,9/2$^+$) | | | |
| | | 2330.3 *1* | 15.2 *30* | 2134.63 | (7/2$^+$,9/2$^+$) | | | |
| | | 2348.0 *2* | 30.3 *61* | 2116.95 | (7/2$^+$,9/2$^+$) | | | |
| | | 2521.1 *4* | 8.8 *21* | 1943.46 | (11/2$^+$) | | | |
| | | 3169.9 *3* | 21.2 *30* | 1294.61 | (9/2$^+$) | | | |
| | | 3778.2 *1* | 100 *9* | 686.62 | (7/2$^+$) | | | |
| | | 4464.9 *2* | 84.8 *61* | 0.0 | (5/2$^+$) | | | |
| 4532.3 | | 1701.3 *3* | 100 *16* | 2831.02 | (9/2$^+$,11/2$^+$,13/2$^+$) | | | |
| 4548.8 | | 3862.1 *6* | 100 *35* | 686.62 | (7/2$^+$) | | | |
| 4618.4 | | 2836.2 *4* | 64 *20* | 1782.30 | (5/2$^+$) | | | |
| | | 4618.2 *4* | 100 *32* | 0.0 | (5/2$^+$) | | | |
| 4636.8 | (29/2$^+$) | 826.1[a] *3* | 100 | 3810.7 | (25/2$^+$) | (E2) | 1.57×10$^{-3}$ | α(K)=0.001371 *20*; α(L)=0.0001643 *23*; α(M)=3.08×10$^{-5}$ *5*; α(N+..)=5.17×10$^{-6}$ *8* α(N)=5.17×10$^{-6}$ *8* |
| 4645.7 | | 3959.0 *4* | 100 *21* | 686.62 | (7/2$^+$) | | | |
| 4729.4 | | 4042.7 *7* | 100 *29* | 686.62 | (7/2$^+$) | | | |
| 4820.9 | (31/2) | 184.03[a] *22* | 100 | 4636.8 | (29/2$^+$) | D | | |
| 4915.3 | (7/2$^+$,9/2$^+$,11/2$^+$) | 3377.3 *5* | 100 *22* | 1537.67 | (7/2$^+$,9/2$^+$) | | | |
| | | 3871.7 *4* | 93 *19* | 1043.71 | (7/2$^+$) | | | |
| 4915.7 | | 278.9[a] *4* | 100 | 4636.8 | (29/2$^+$) | | | |
| 4992.9 | (7/2$^+$,9/2$^+$,11/2$^+$) | 4306.2 *3* | 100 *23* | 686.62 | (7/2$^+$) | | | |
| 5004.83 | (7/2$^+$,9/2$^+$,11/2$^+$) | 785.7 *2* | 100 *19* | 4219.13 | (7/2$^+$,9/2$^+$) | | | |
| 5042.5 | (7/2$^+$,9/2$^+$,11/2$^+$) | 3747.8 *4* | 100 *24* | 1294.61 | (9/2$^+$) | | | |
| | | 4355.5 *10* | 76 *20* | 686.62 | (7/2$^+$) | | | |
| 5086.2 | (7/2$^+$,9/2$^+$,11/2$^+$) | 2690.5 *4* | 100 *30* | 2395.68 | (11/2$^+$) | | | |
| 5150.9 | (7/2$^+$,9/2$^+$,11/2$^+$) | 931.8 *5* | 100 *40* | 4219.13 | (7/2$^+$,9/2$^+$) | | | |
| 5238.1 | | 3356.5 *3* | 100 *22* | 1881.57 | (13/2$^+$) | | | |





$^{97}_{46}Pd_{51}$-20

## Adopted Levels, Gammas (continued)

### γ($^{97}$Pd) (continued)

| $E_i$(level) | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ | Mult.[†] | α[c] | Comments |
|---|---|---|---|---|---|---|---|---|
| 5256.1 | (7/2$^+$,9/2$^+$,11/2$^+$) | 4569.4 *8* | 100 *20* | 686.62 | (7/2$^+$) | | | |
| 5280.2 | (7/2$^+$,9/2$^+$,11/2$^+$) | 4593.5 *7* | 100 *33* | 686.62 | (7/2$^+$) | | | |
| 5326.3 | (7/2$^+$,9/2$^+$,11/2$^+$) | 4639.6 *7* | 100 *33* | 686.62 | (7/2$^+$) | | | |
| 5535.8 | | 899.0[a] *5* | 100 | 4636.8 | (29/2$^+$) | | | |
| 5887.8 | (33/2$^+$) | 1251.0[a] *3* | 100 | 4636.8 | (29/2$^+$) | (E2) | $6.34\times10^{-4}$ | α(K)=0.000542 *8*; α(L)=$6.30\times10^{-5}$ *9*; α(M)=$1.180\times10^{-5}$ *17*; α(N+..)=$1.718\times10^{-5}$ *25*<br>α(N)=$1.99\times10^{-6}$ *3*; α(IPF)=$1.520\times10^{-5}$ *22* |
| 6313.3? | | 425.5[a] *3* | 100 | 5887.8 | (33/2$^+$) | | | |
| 6541.0 | | 227.7[a] *3* | 100 | 6313.3? | | | | |
| 7523.0 | | 982.0[a] *4* | 100 | 6541.0 | | | | |

† Multipolarities are from 1990Pi01 and are deduced from γ(θ). Stretched Q and mixed D+Q transitions are assumed to be (E2) and (M1+E2) (rather than (E1+M2)), respectively.

‡ Weighted average of measurements in $^{97}$Ag ε decay and $^{96}$Ru($^3$He,2nγ) data sets.

# Weighted average of measurements in $^{97}$Ag ε decay, $^{64}$Zn($^{40}$Ca,α2pnγ), and $^{96}$Ru($^3$He,2nγ) data sets.

@ Weighted average of measurements in $^{64}$Zn($^{40}$Ca,α2pnγ) and $^{96}$Ru($^3$He,2nγ) data sets.

& Weighted average of measurements in $^{97}$Ag ε decay and $^{64}$Zn($^{40}$Ca,α2pnγ) data sets.

a From $^{64}$Zn($^{40}$Ca,α2pnγ) data set.

b Differ by 3σ or more from calculated value.

c 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.



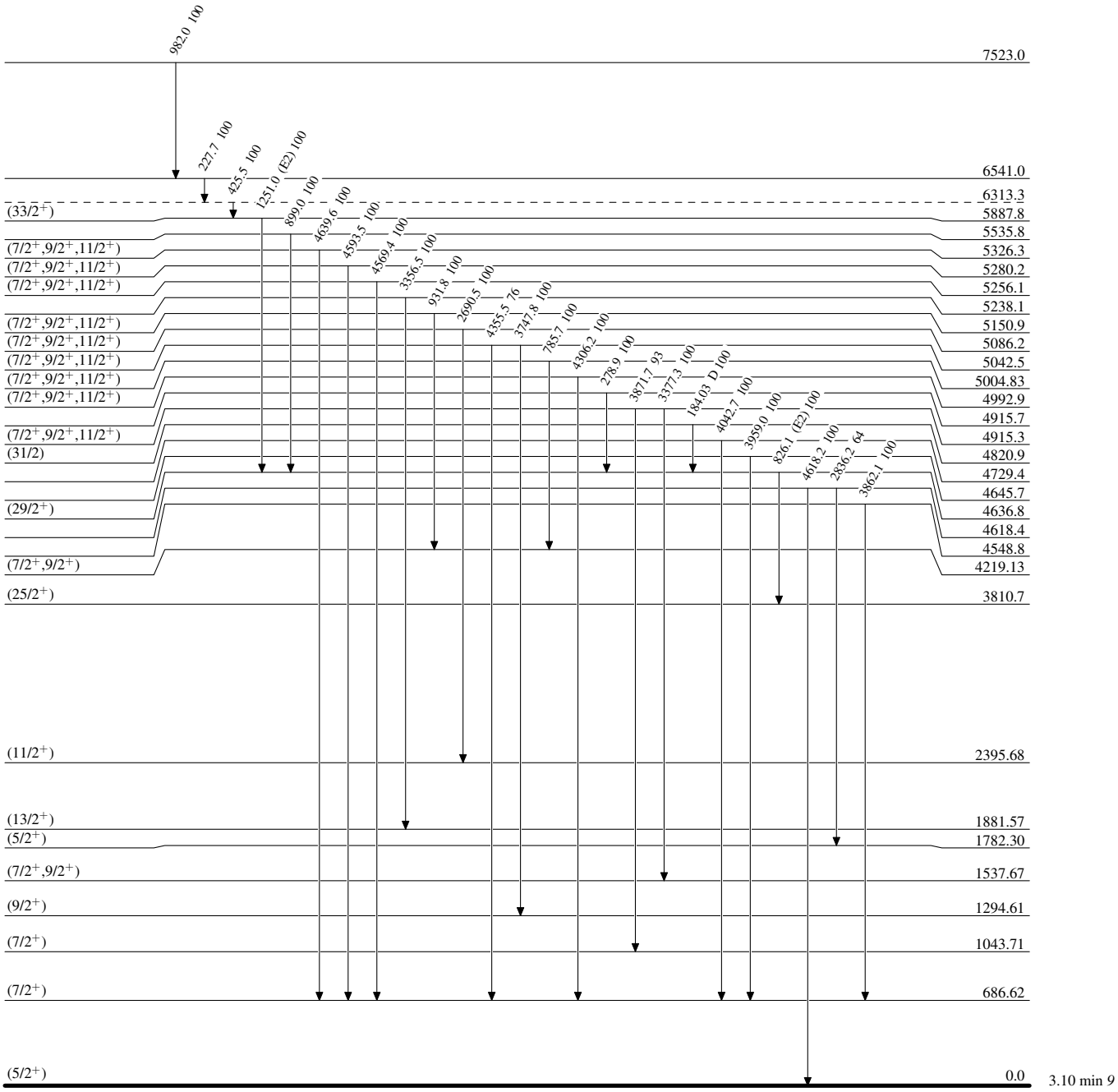


$^{97}_{46}Pd_{51}$-21

## Adopted Levels, Gammas

### Level Scheme

Intensities: Relative photon branching from each level

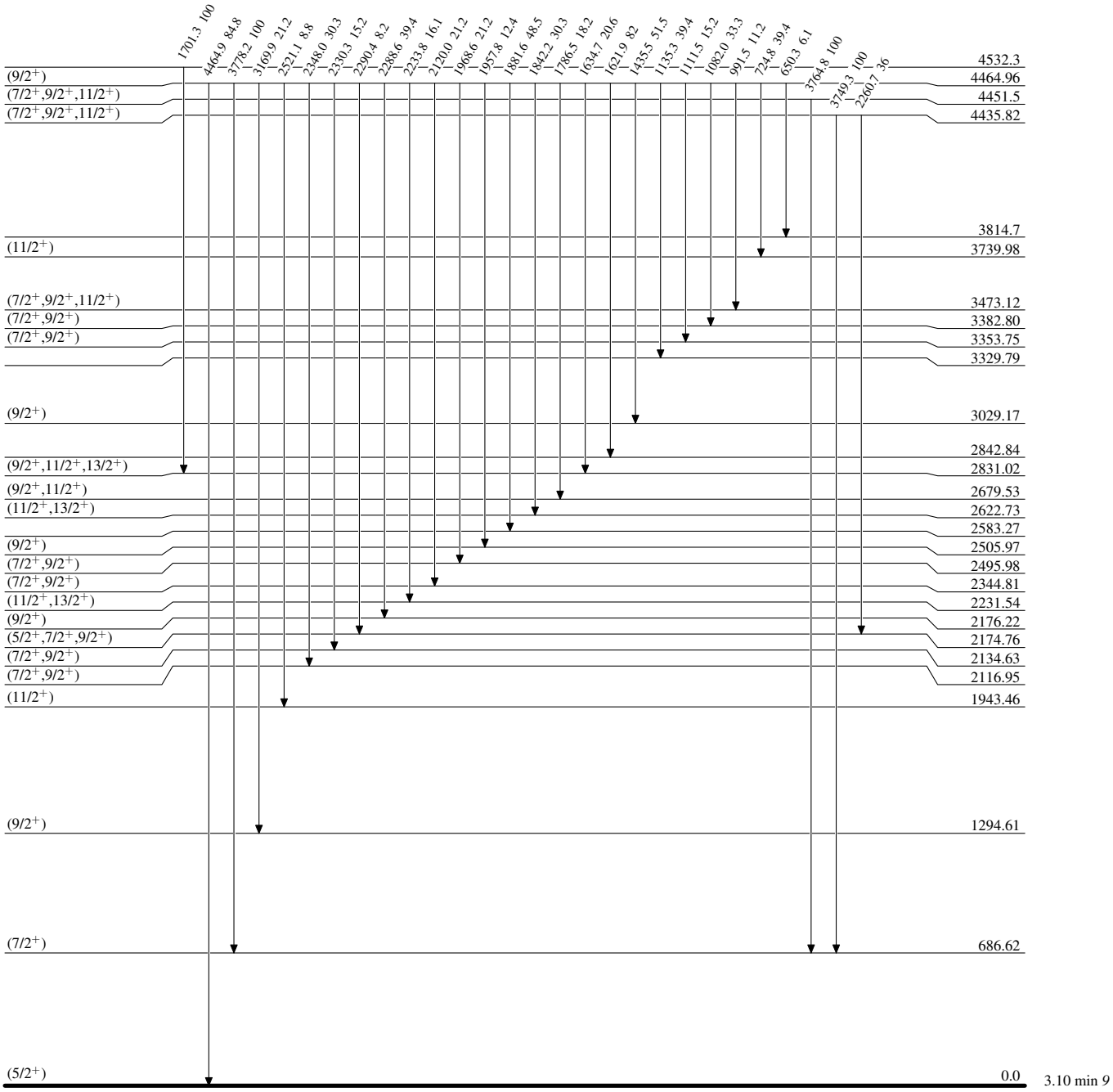



$^{97}_{46}Pd_{51}$

**Adopted Levels, Gammas**

Level Scheme (continued)

Intensities: Relative photon branching from each level

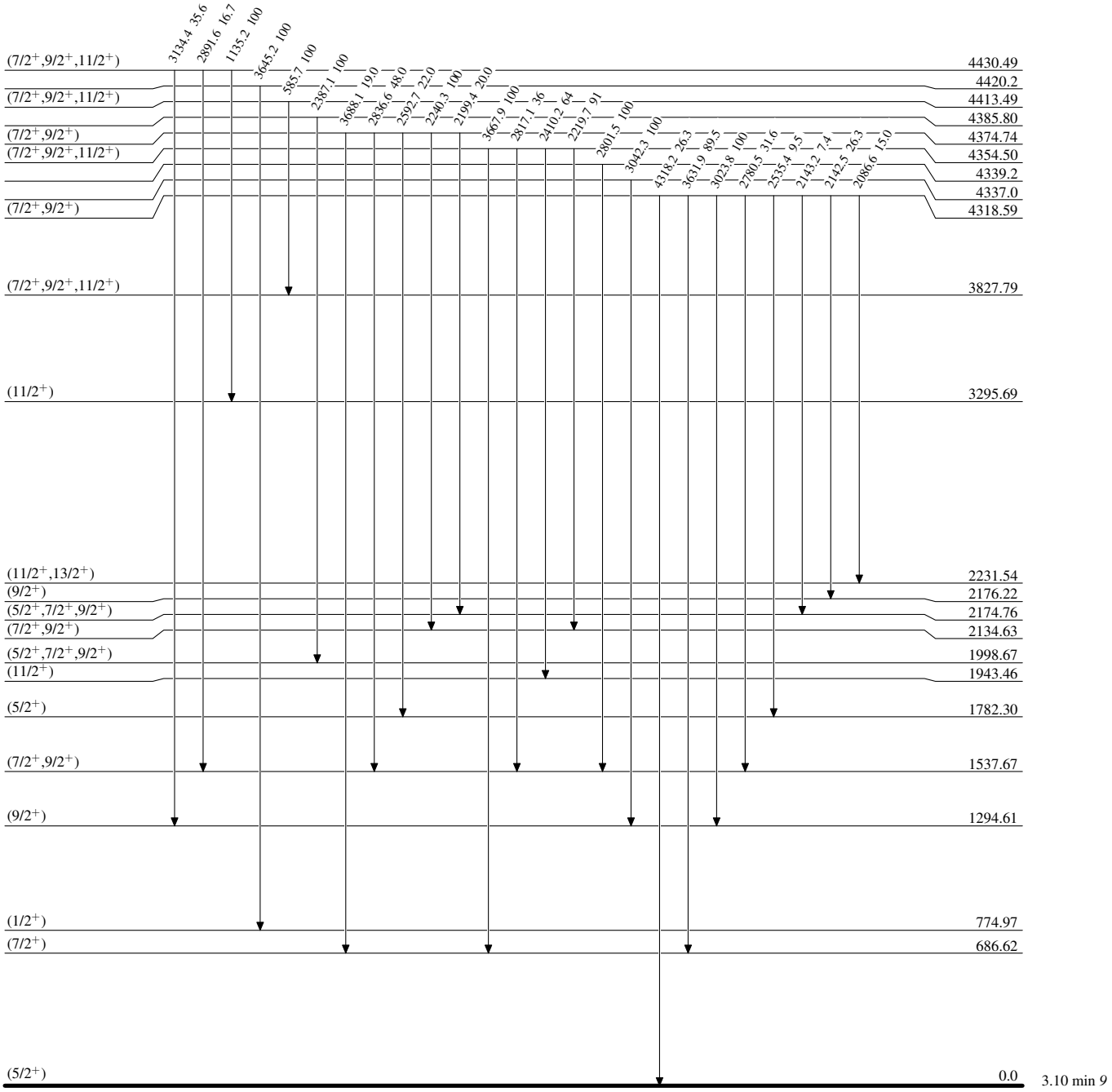



$^{97}_{46}Pd_{51}$

## Adopted Levels, Gammas

### Level Scheme (continued)

Intensities: Relative photon branching from each level

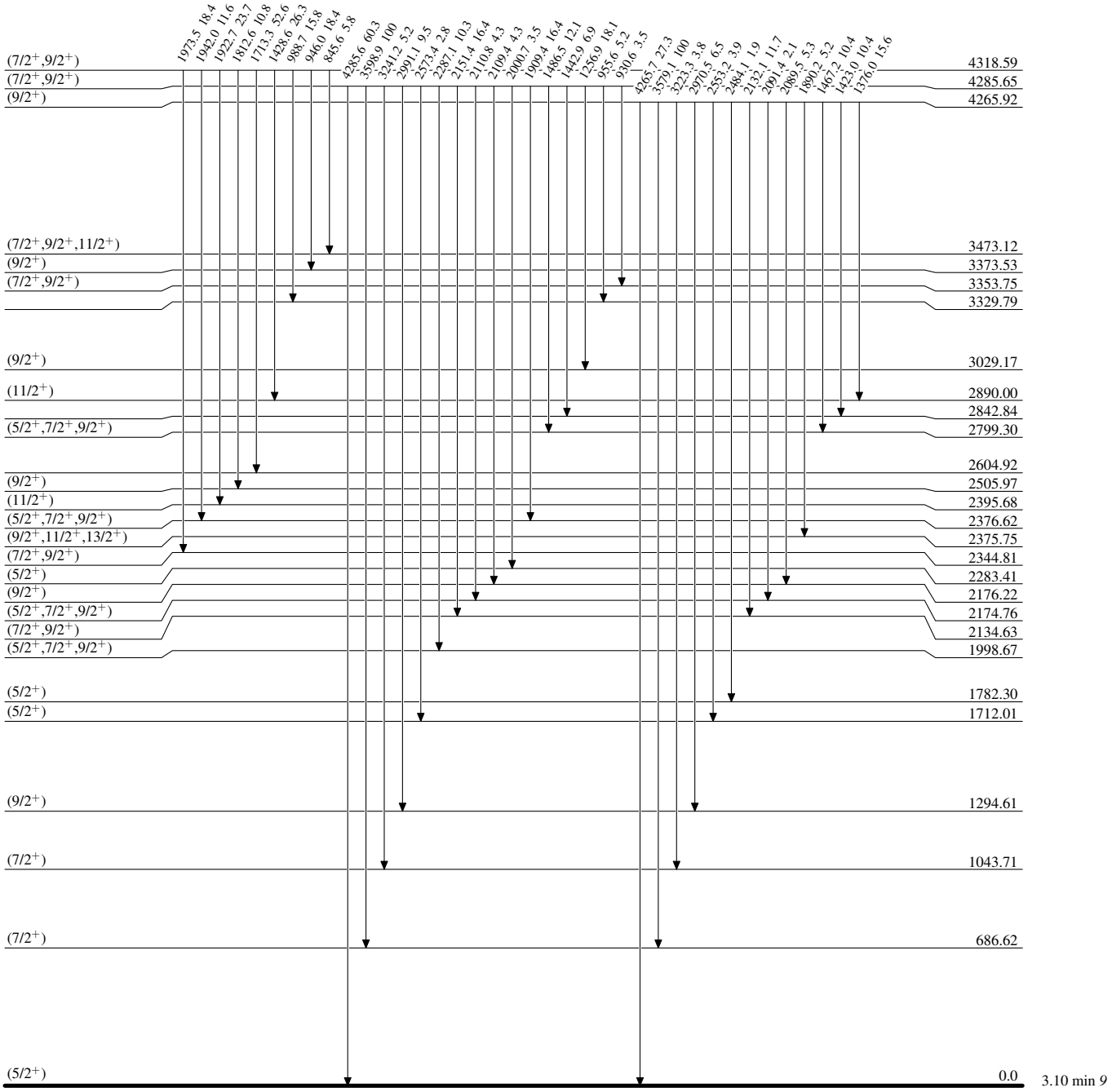



$^{97}_{46}Pd_{51}$

**Adopted Levels, Gammas**

Level Scheme (continued)

Intensities: Relative photon branching from each level

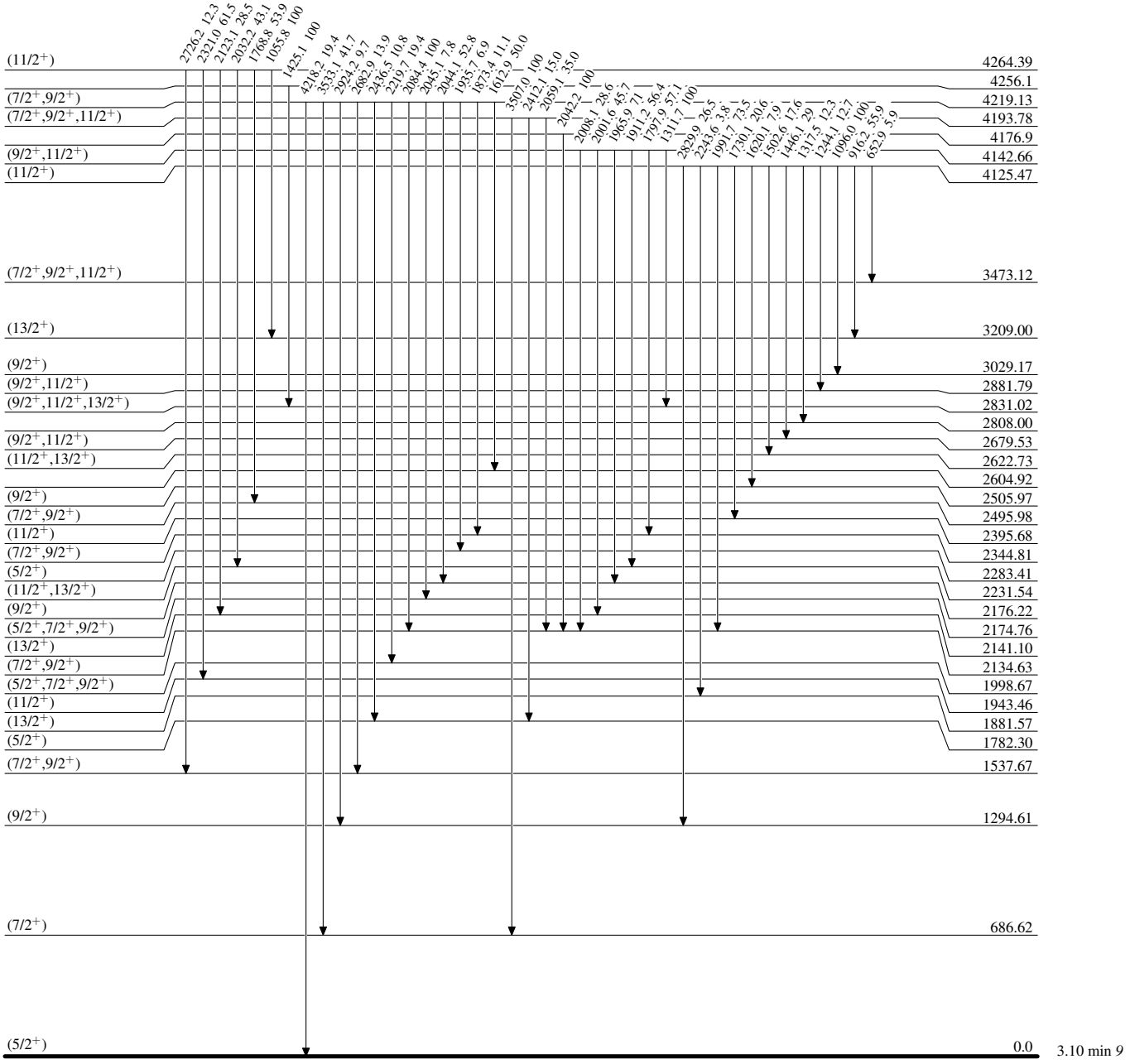



$^{97}_{46}Pd_{51}$

**Adopted Levels, Gammas**

Level Scheme (continued)

Intensities: Relative photon branching from each level

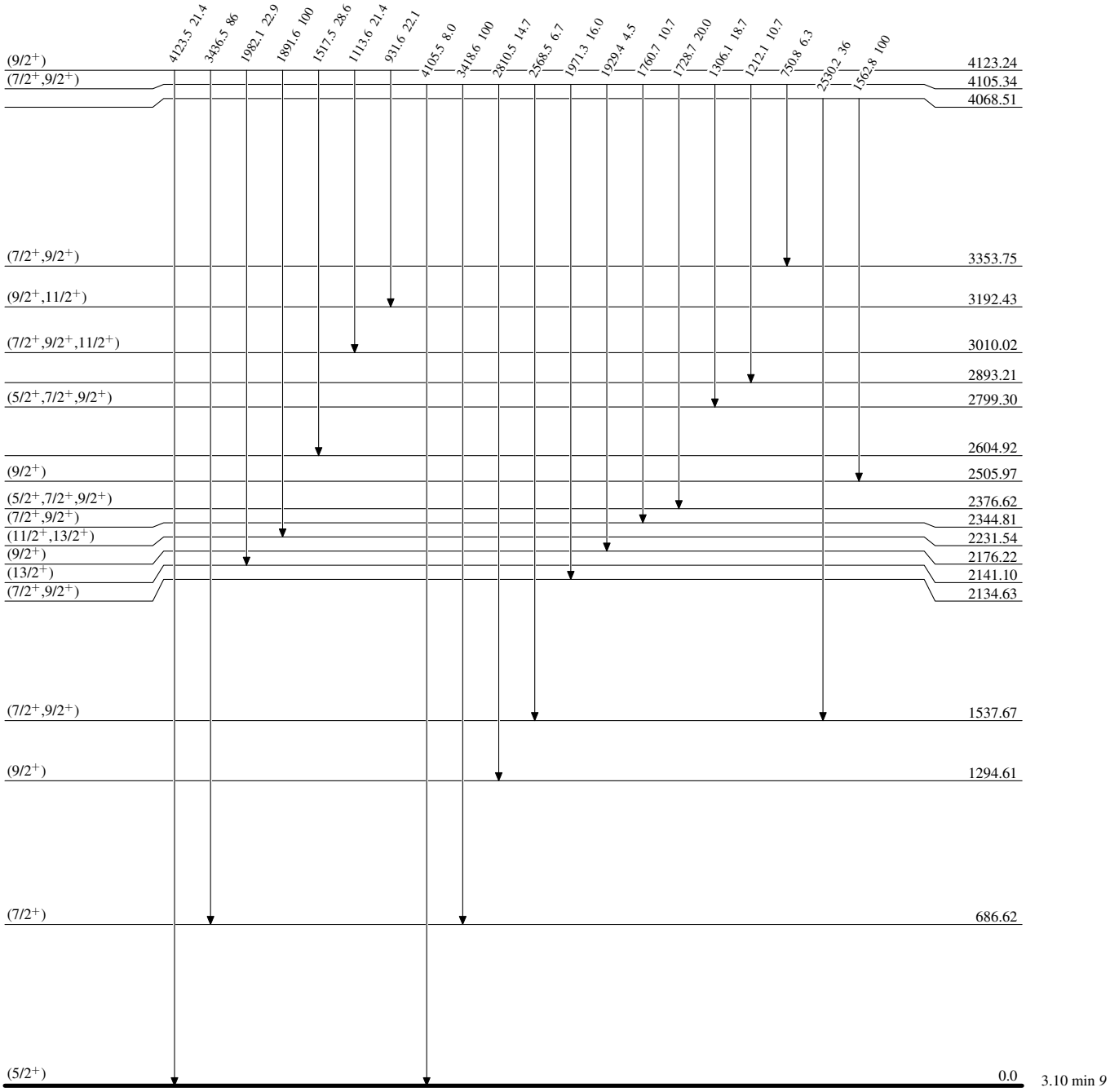



$^{97}_{46}Pd_{51}$

## Adopted Levels, Gammas

### Level Scheme (continued)

Intensities: Relative photon branching from each level

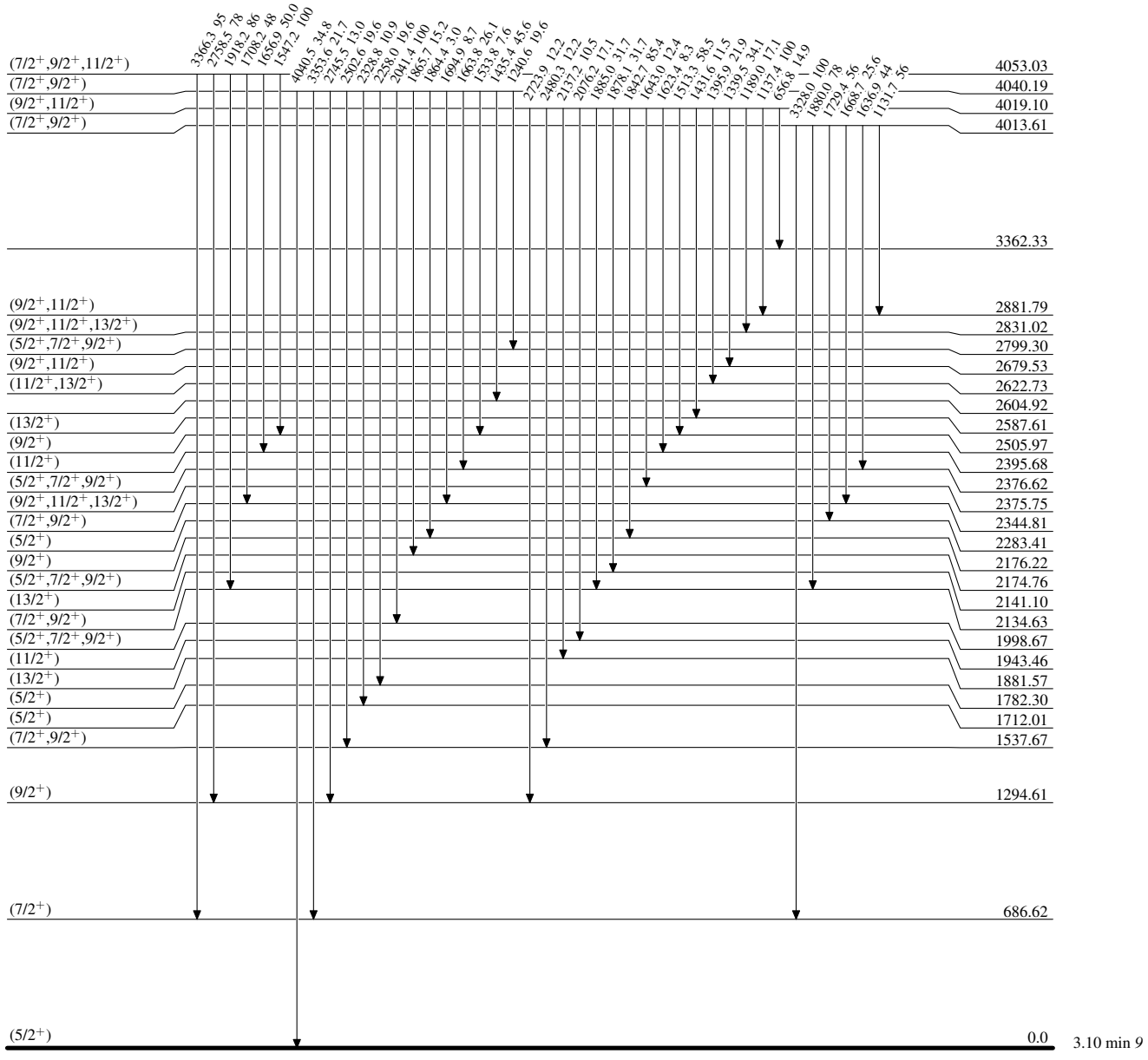



$^{97}_{46}Pd_{51}$

## Adopted Levels, Gammas

### Level Scheme (continued)

Intensities: Relative photon branching from each level

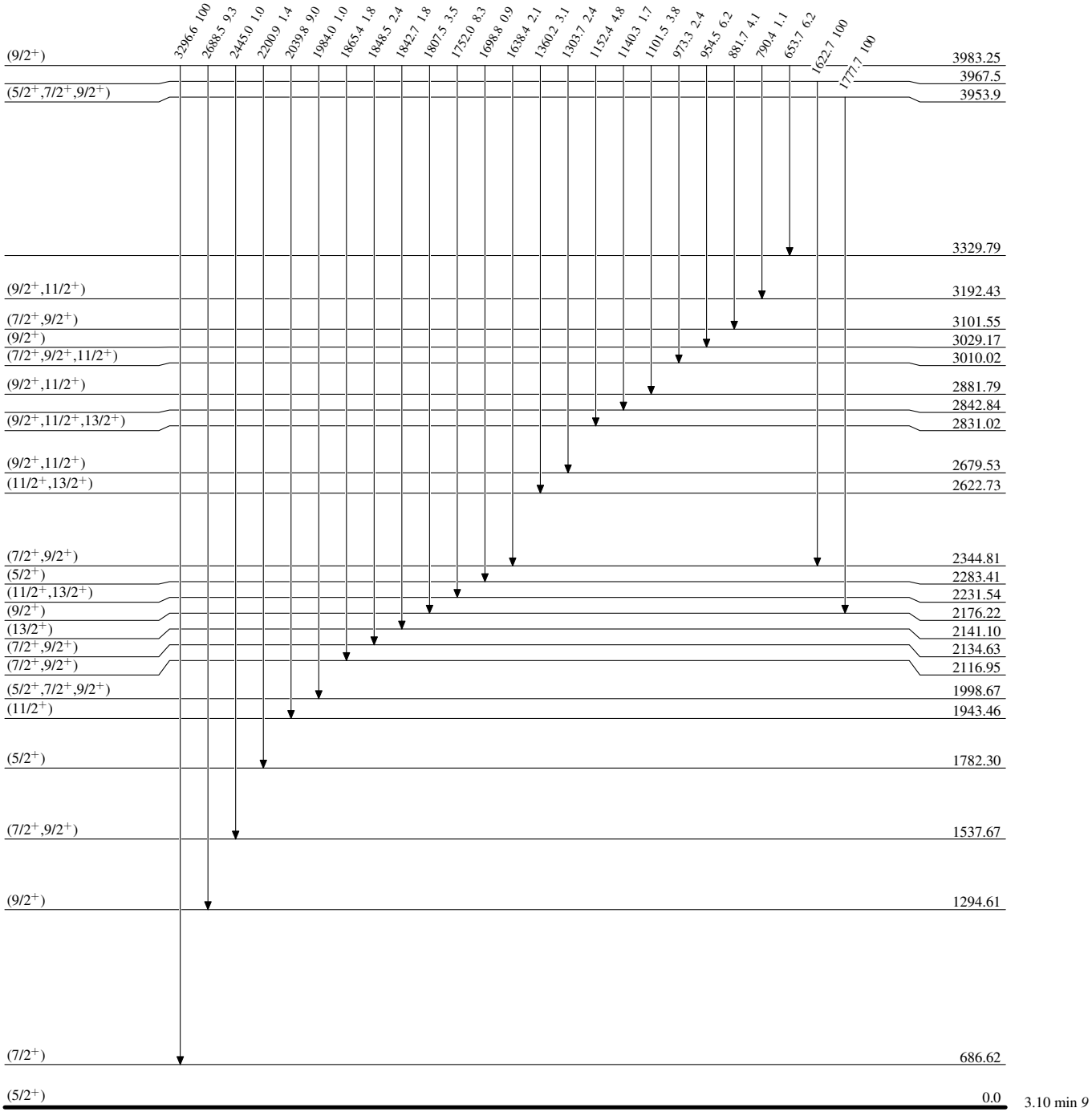



$^{97}_{46}Pd_{51}$

## Adopted Levels, Gammas

### Level Scheme (continued)

Intensities: Relative photon branching from each level

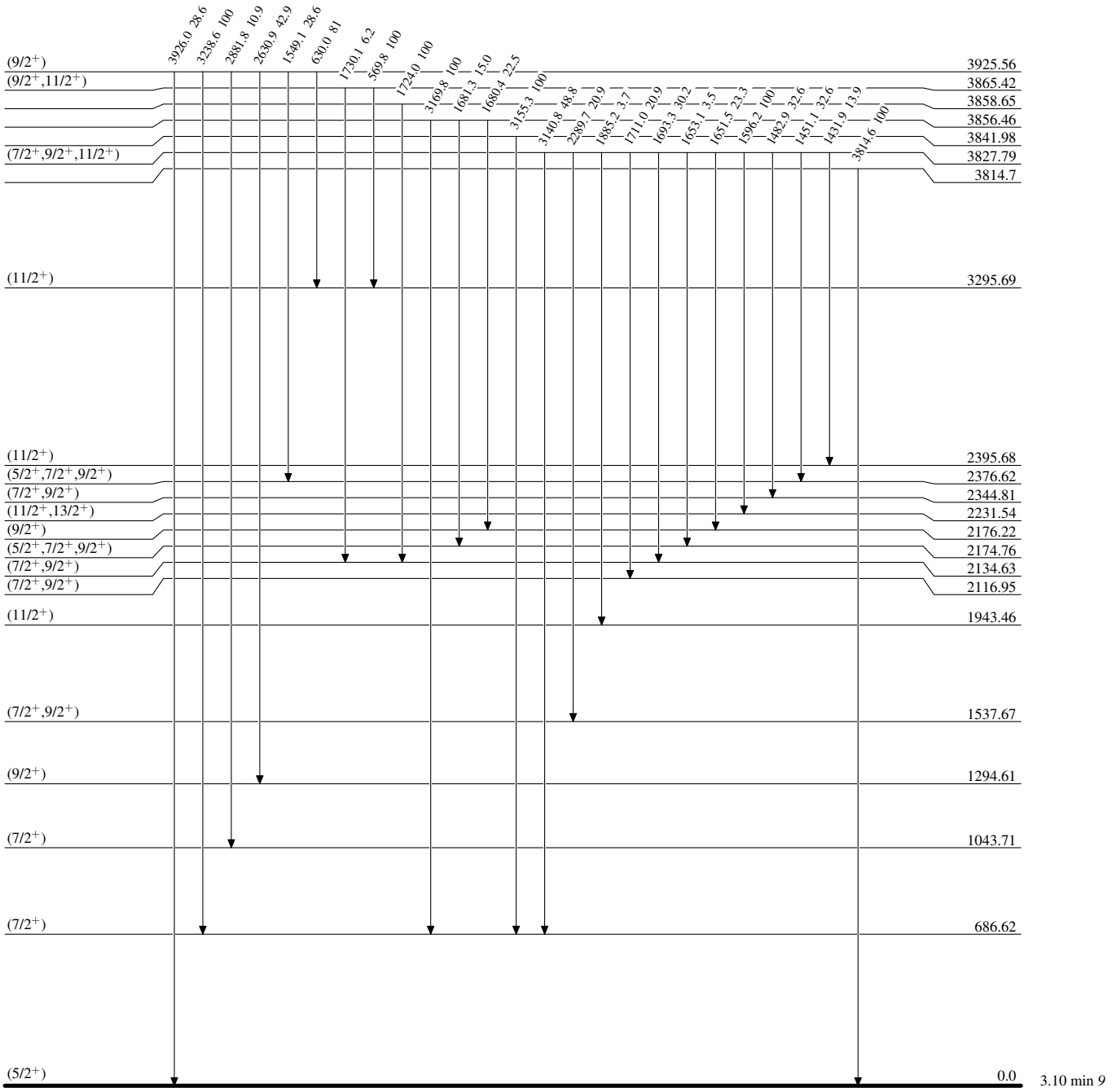



$^{97}_{46}Pd_{51}$

## Adopted Levels, Gammas

### Level Scheme (continued)

Intensities: Relative photon branching from each level

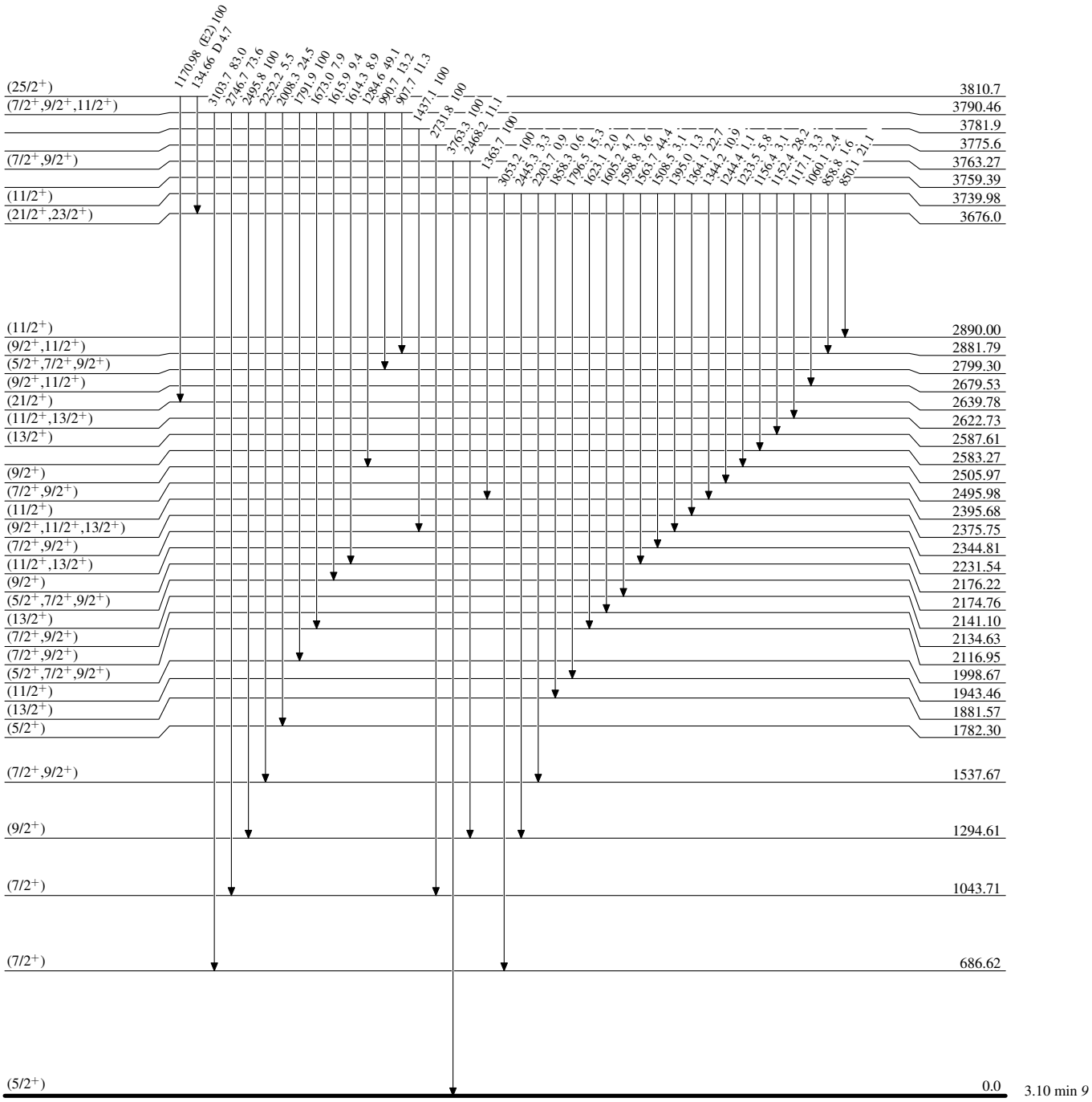



$^{97}_{46}Pd_{51}$

**Adopted Levels, Gammas**

Level Scheme (continued)

Intensities: Relative photon branching from each level

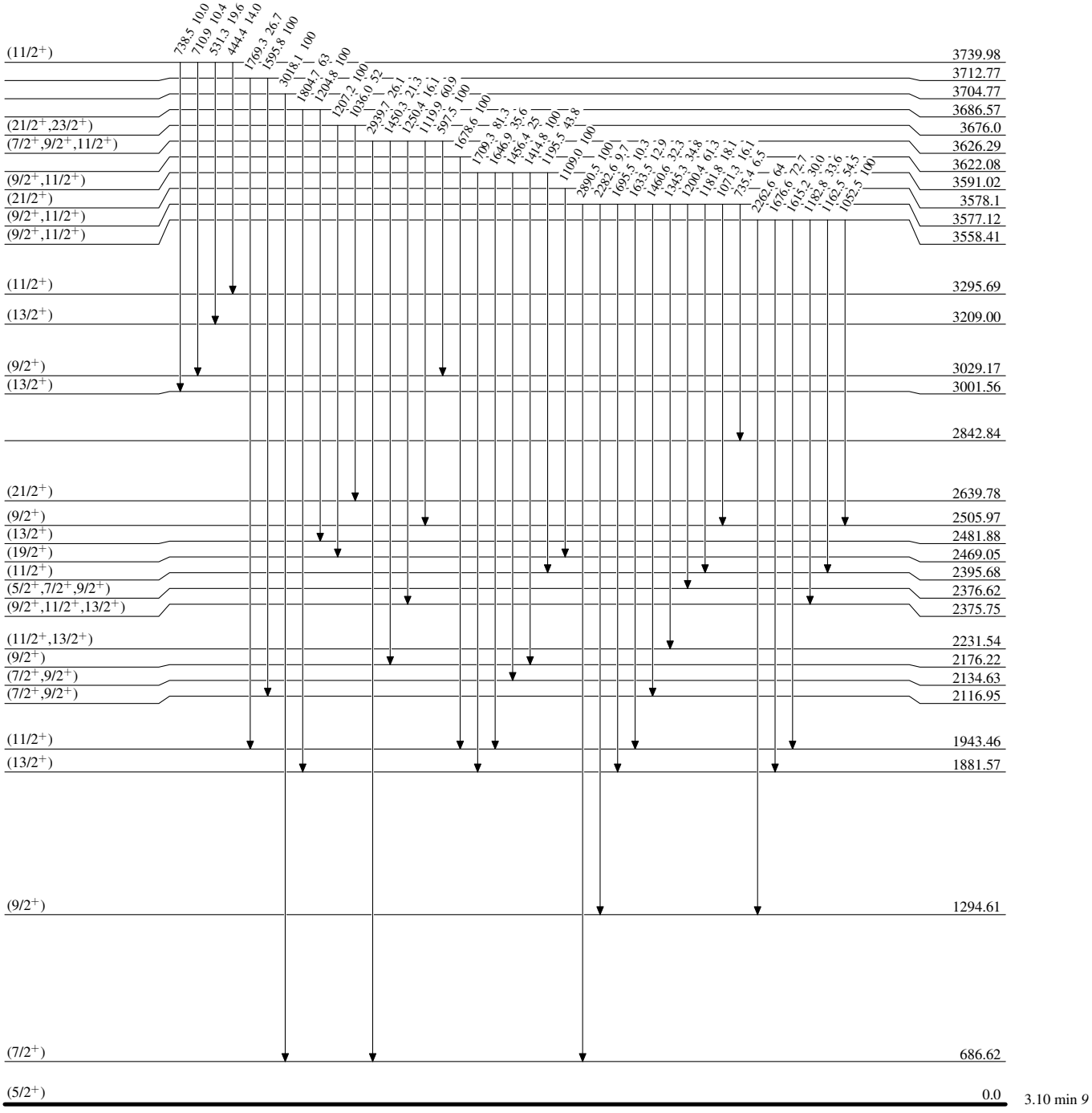



$^{97}_{46}Pd_{51}$

**Adopted Levels, Gammas**

Level Scheme (continued)

Intensities: Relative photon branching from each level

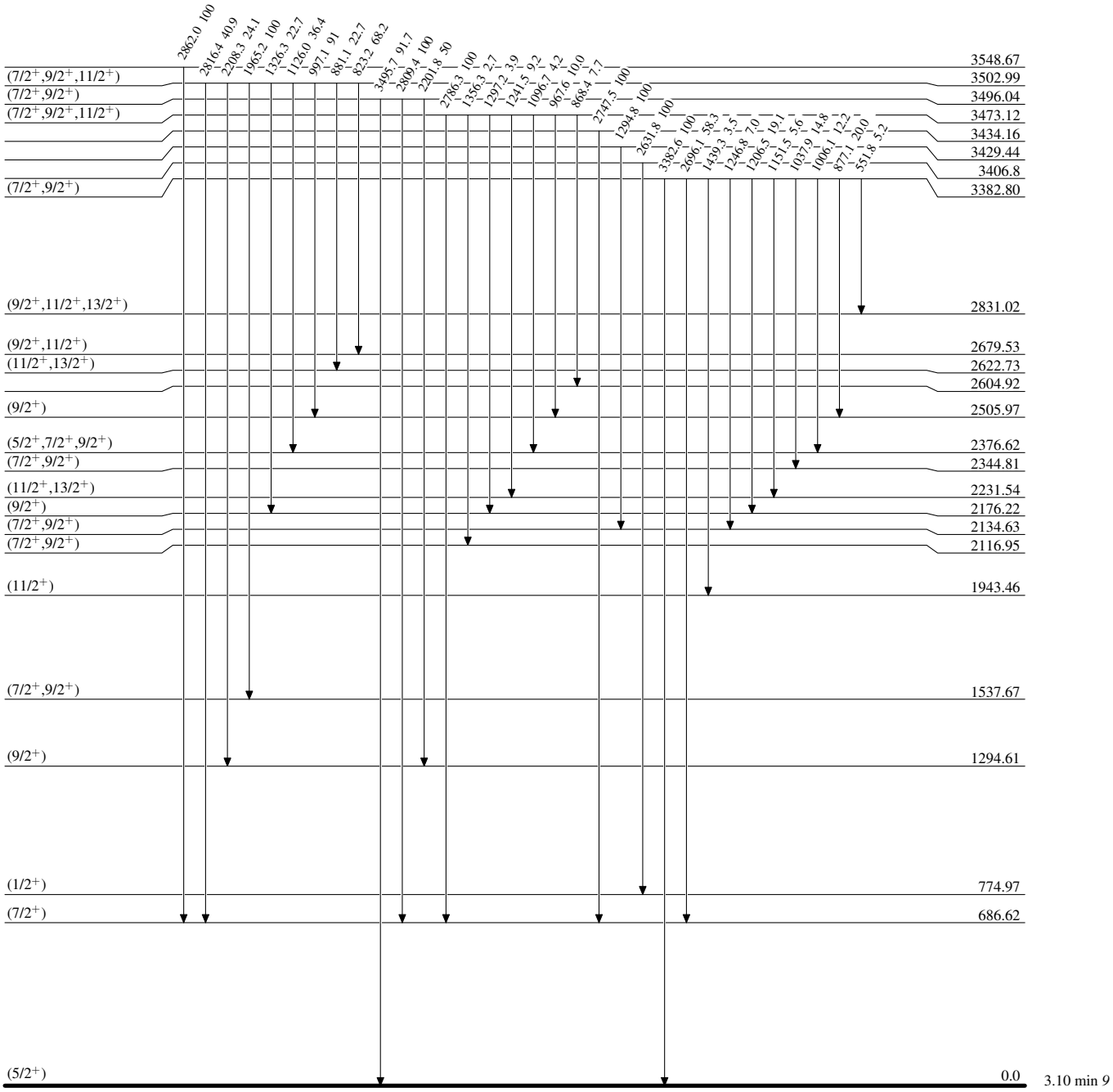



$^{97}_{46}Pd_{51}$

## Adopted Levels, Gammas

### Level Scheme (continued)

Intensities: Relative photon branching from each level

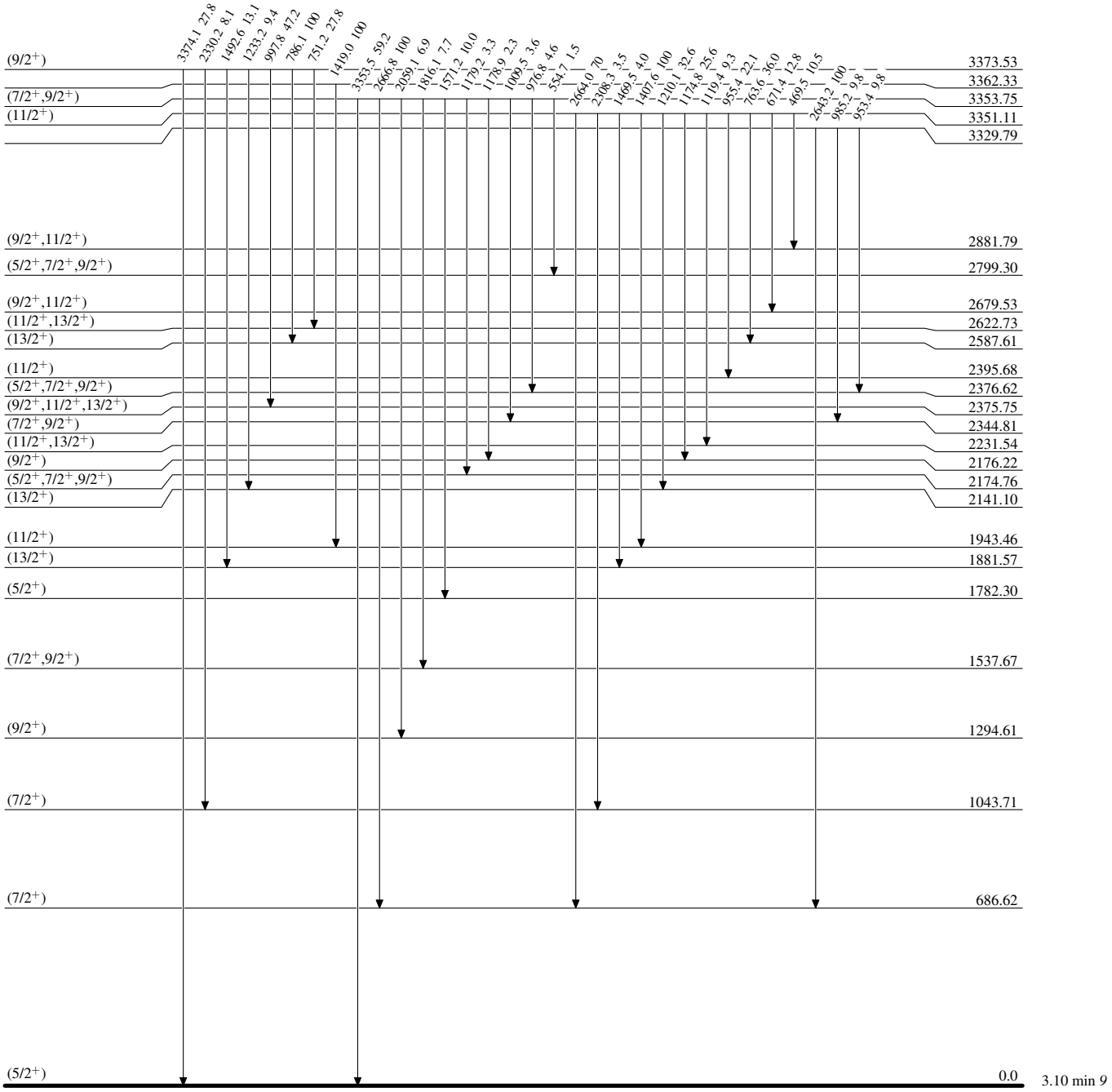



$^{97}_{46}Pd_{51}$

## Adopted Levels, Gammas

### Level Scheme (continued)

Intensities: Relative photon branching from each level

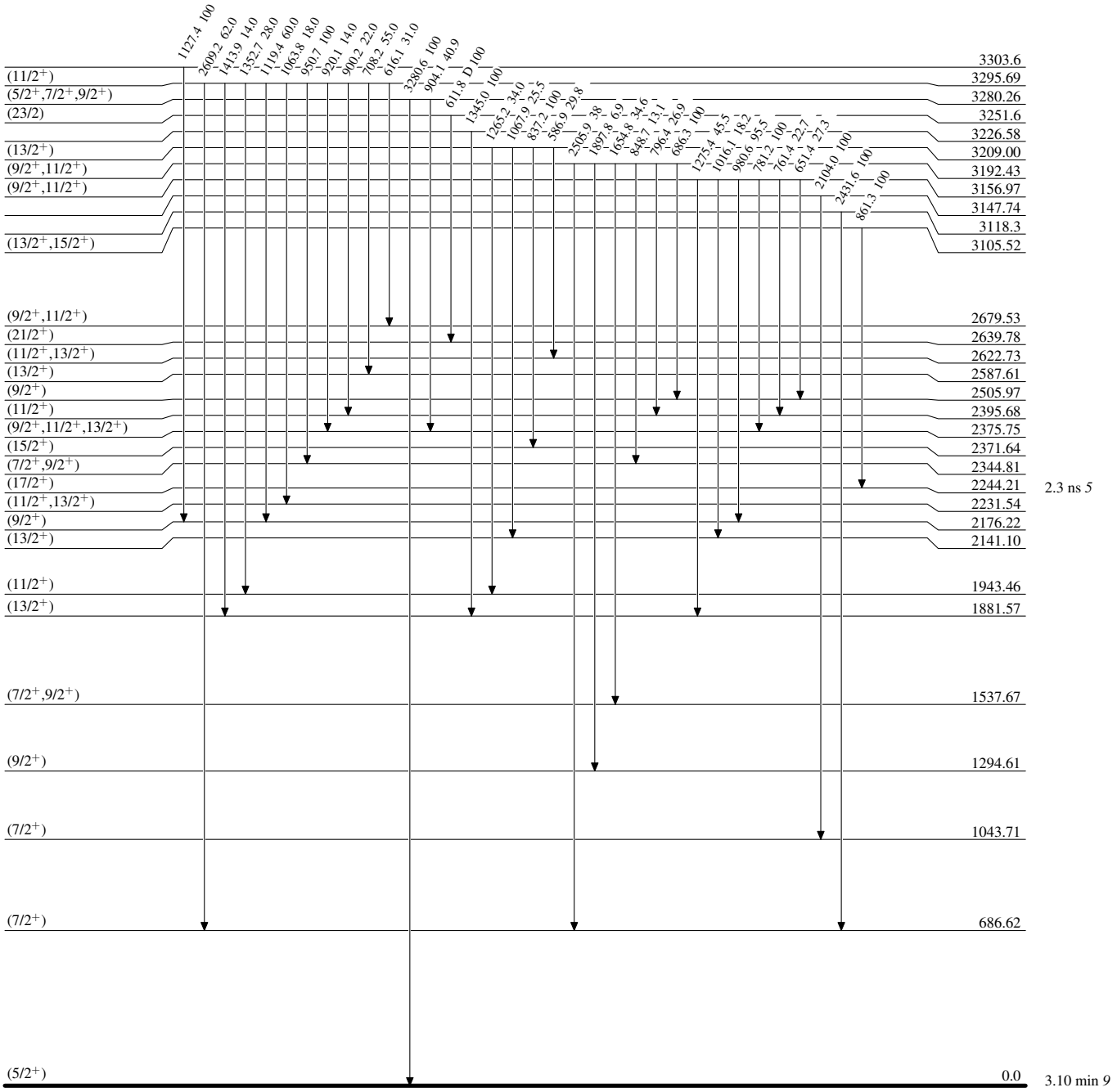



$^{97}_{46}Pd_{51}$

**Adopted Levels, Gammas**

Level Scheme (continued)

Intensities: Relative photon branching from each level

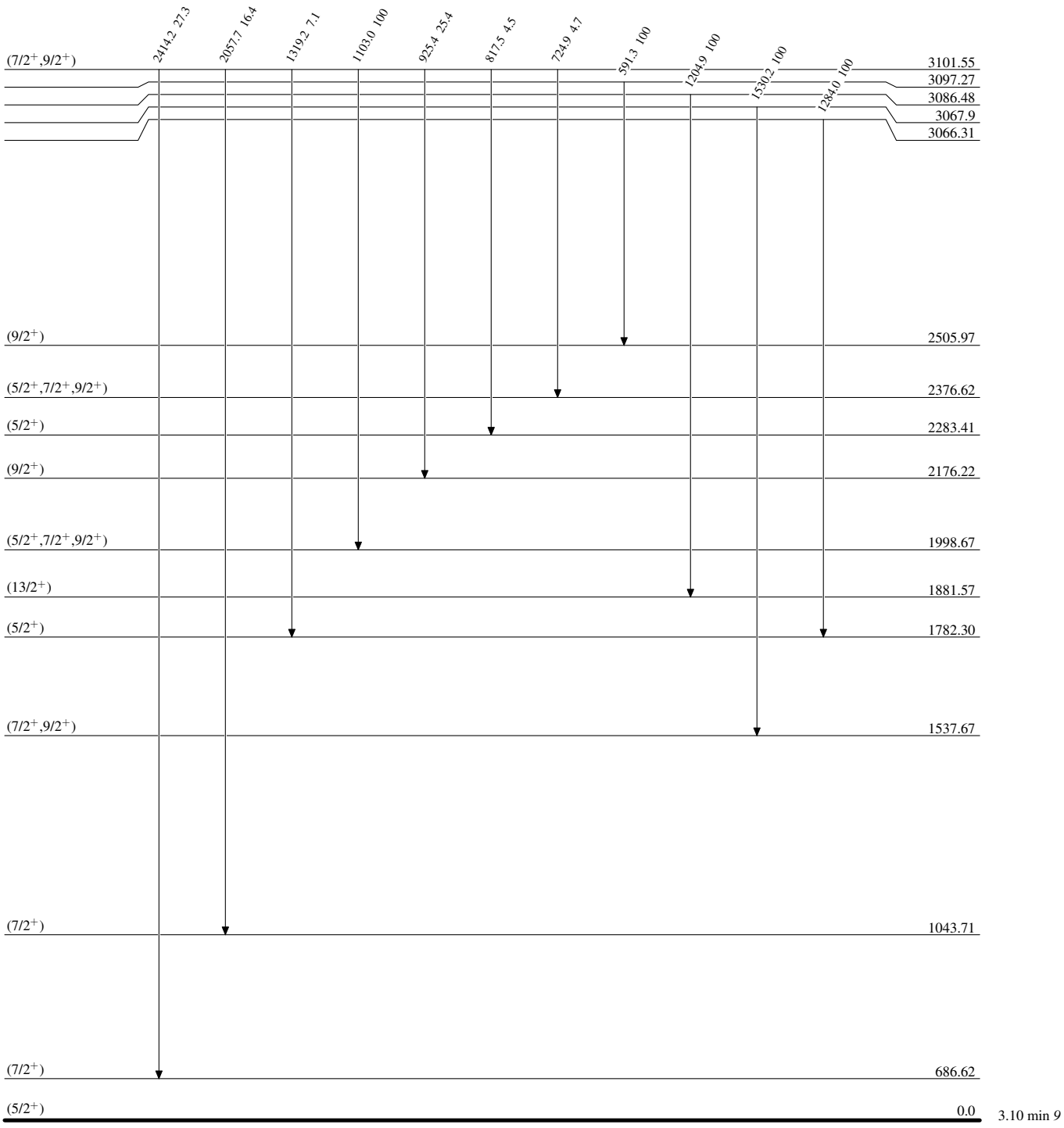



$^{97}_{46}Pd_{51}$

**Adopted Levels, Gammas**

## Level Scheme (continued)

Intensities: Relative photon branching from each level

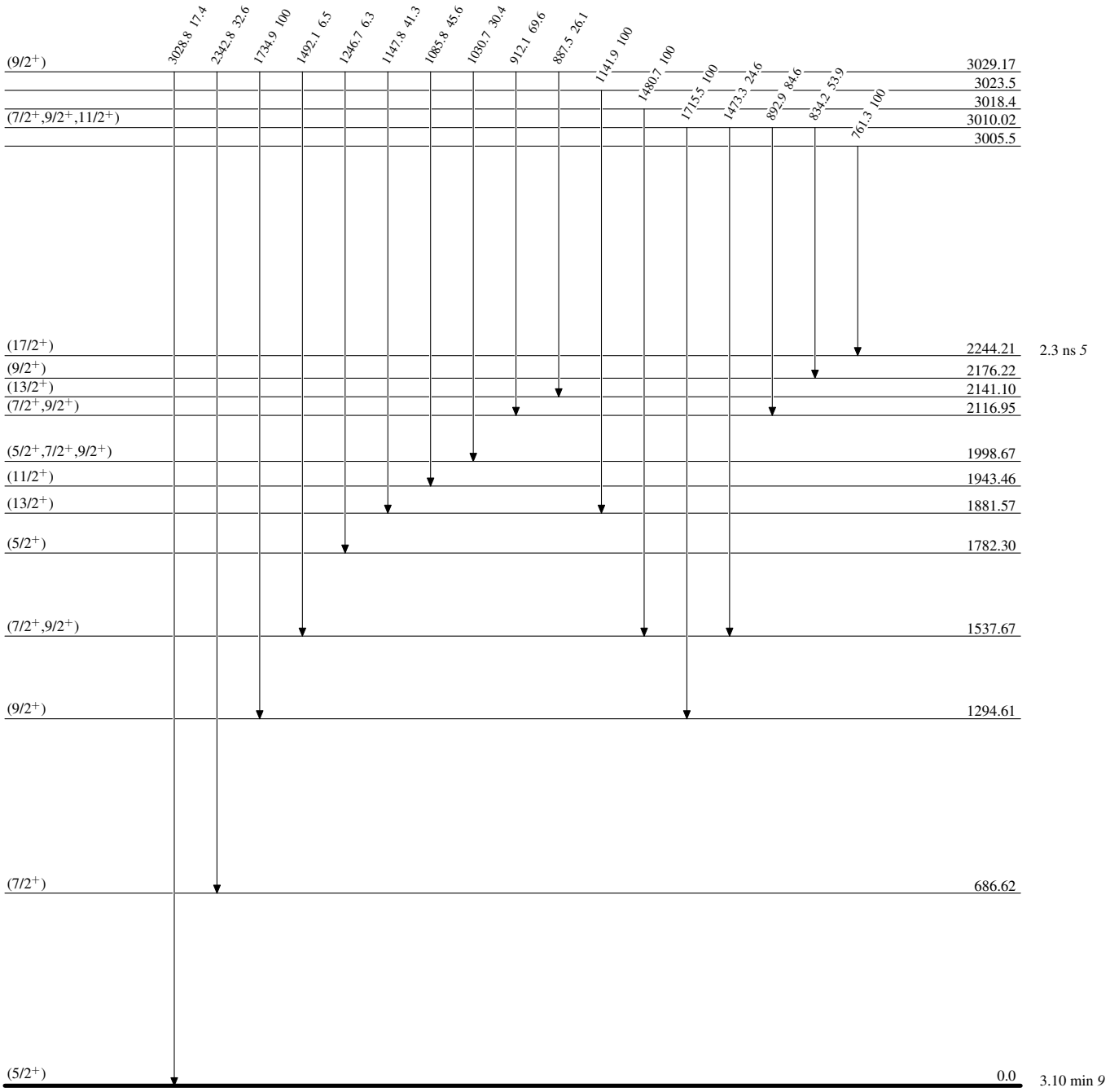



$^{97}_{46}Pd_{51}$

## Adopted Levels, Gammas

### Level Scheme (continued)

Intensities: Relative photon branching from each level

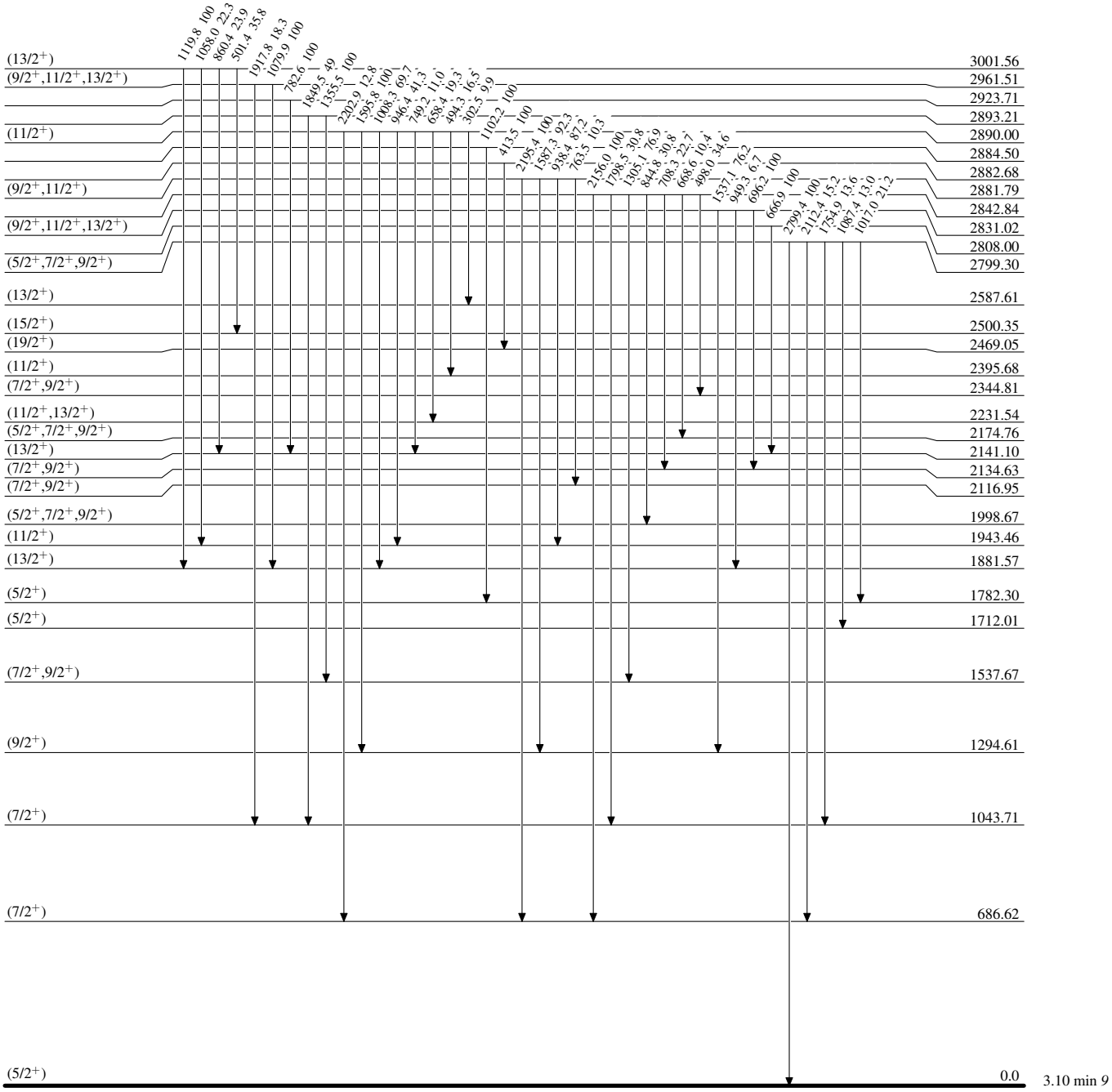



$^{97}_{46}Pd_{51}$

## Adopted Levels, Gammas

### Level Scheme (continued)

Intensities: Relative photon branching from each level

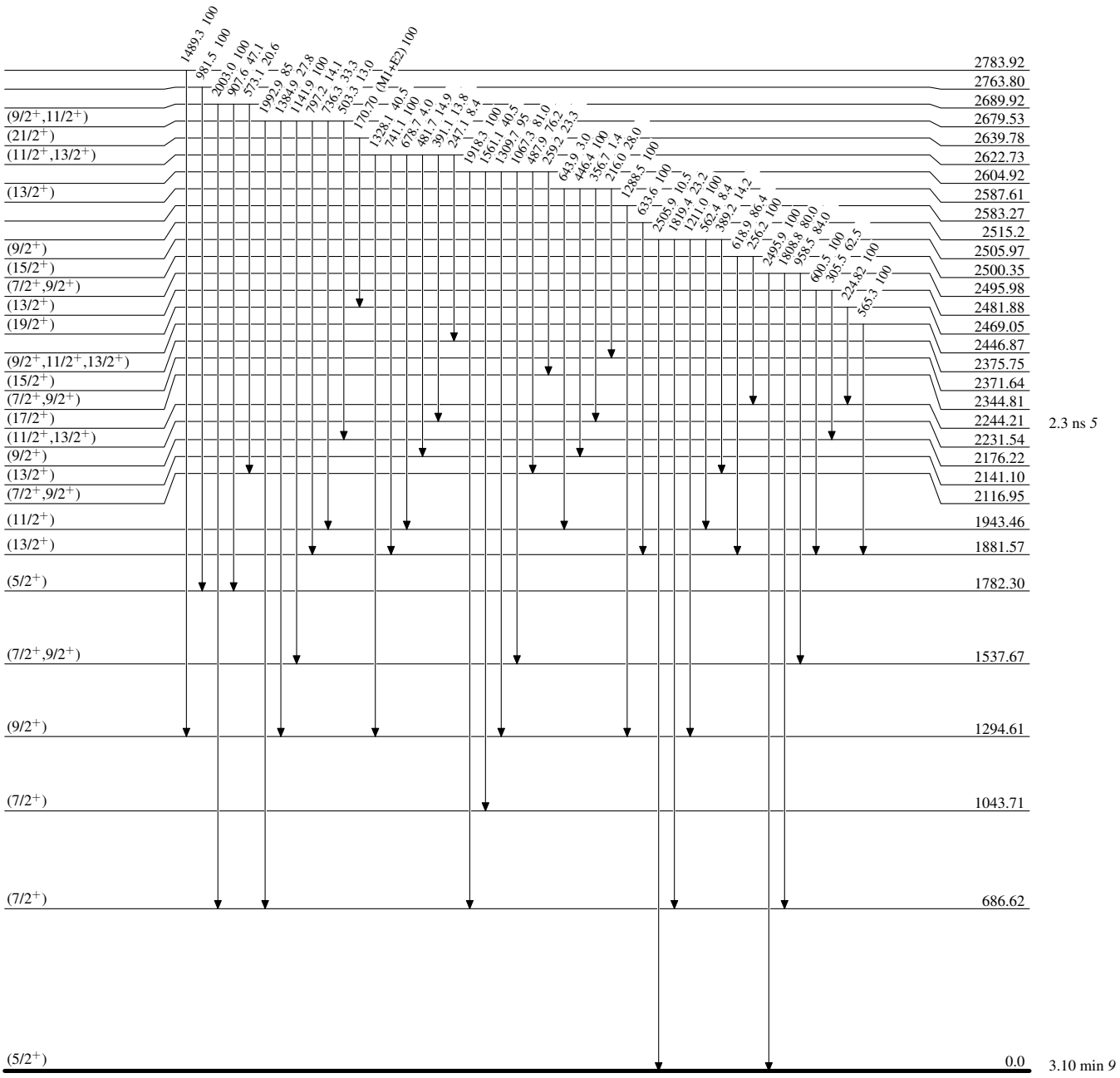



$^{97}_{46}Pd_{51}$

## Adopted Levels, Gammas

### Level Scheme (continued)

Intensities: Relative photon branching from each level

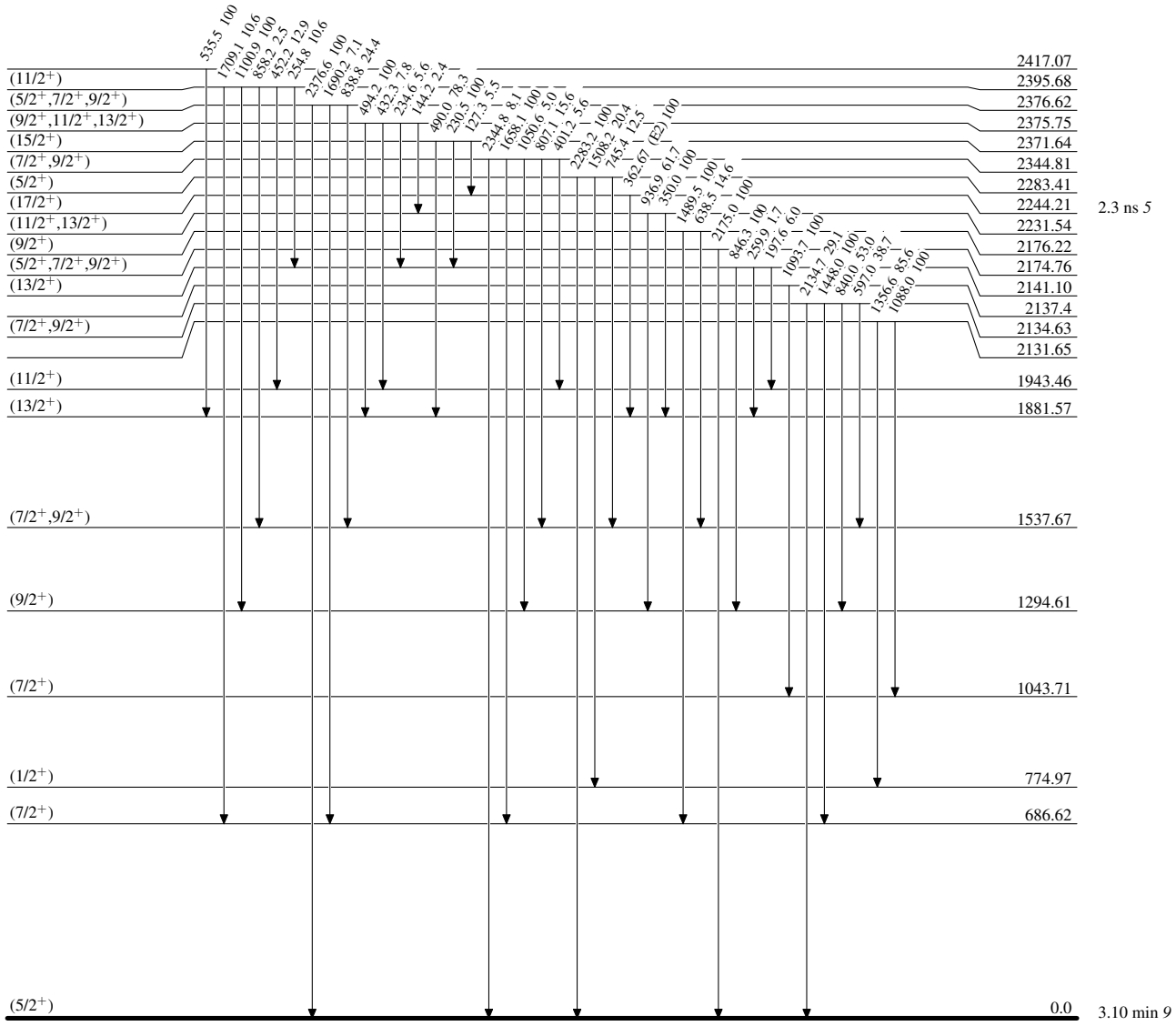



$^{97}_{46}Pd_{51}$

**Adopted Levels, Gammas**

Level Scheme (continued)

Intensities: Relative photon branching from each level

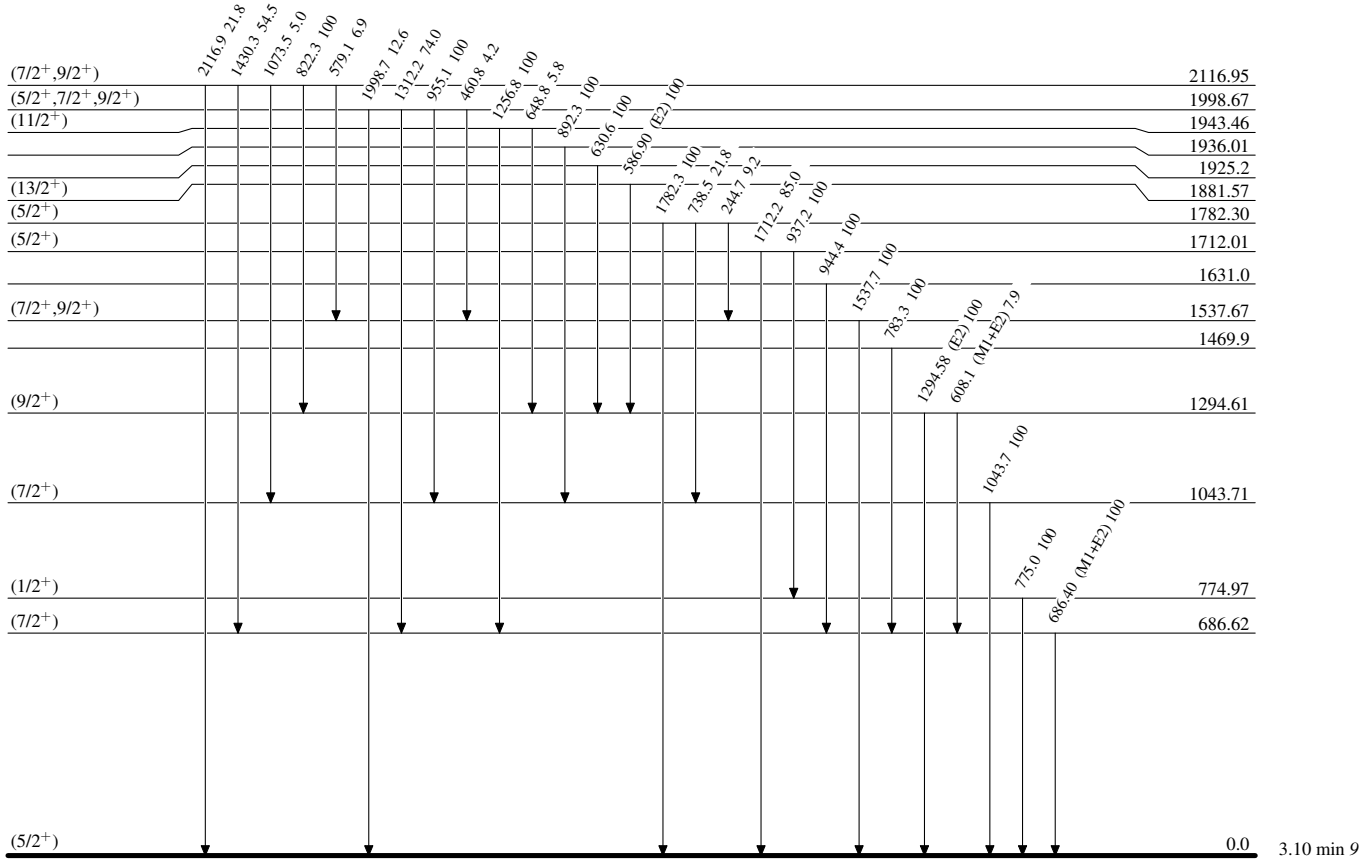



$^{97}_{46}Pd_{51}$

## Adopted Levels, Gammas

### Level Scheme (continued)

Intensities: Relative photon branching from each level




$^{97}_{46}Pd_{51}$