$^{151}_{65}$Tb

Δ: −71634 5 **S_n:** 8589 9 **S_p:** 3151 7
Q_{EC}: 2565 4 **Q_α:** 3497 4

Nuclear Bands

A (^{150}Gd 0$^+$)π$h_{11/2}$

B (^{150}Gd 3$^-$)π$h_{11/2}$

C SD-1 band (89Fa02,93Cu06,94De33)(95Kh06,97Ni01)

D SD-2 band (90By01,93Cu06)(94De33,95Kh06)

E SD-3 band (94De33,95Kh06)

F SD-4 band (94De33,95Kh06)

G SD-5 band (94De33,95Kh06)

H SD-6 band (94De33,95Kh06)

I SD-7 band (94De33,95Kh06)

J SD-8 band (94De33,95Kh06)

Levels and γ-ray branchings:

0, 1/2(+), 17.609 *1* h, %EC+%β$^+$=100, %α=9.5×10^{-3} *15*, μ=0.919 *6*

22.922 *20*, 3/2(+), 4.05 *7* ns **$γ_0$*22.92*** *2* (†$_γ$100) M1+E2: δ=0.031 *4*

72.39 *3*, (5/2+), 0.92 *3* ns **$γ_{23}$*49.46*** *2* (†$_γ$100 *1*) M1+E2: δ=0.06 *2* **$γ_0$*72.50*** *10* (†$_γ$0.5 *1*) (E2)

A **99.54** *6*, (11/2−), 25 *3* s, %IT=93.8 *4*, %EC+%β$^+$=6.2 *4* **$γ_{72}$*27.1*** *1* E3

248.79 *3*, (5/2+,7/2+), <0.26 ns **$γ_{72}$*176.40*** *1* (†$_γ$100 *2*) M1+E2: δ=0.51 *17* **$γ_{23}$*226.3*** *3* (†$_γ$2.3 *5*) M1,E2

276.42 *4* **$γ_{72}$*204.03*** *2* (†$_γ$100)

485.64 *5*, (7/2−) **$γ_{100}$*386.10*** *2* (†$_γ$100 *2*) E2 **$γ_{72}$*413.27*** *13* (†$_γ$2.1 *2*)

548.85 *5*, (3/2+,5/2+,7/2+) **$γ_{276}$*272.43*** *23* (†$_γ$4.0 *10*) **$γ_{249}$*300.00*** *16* (†$_γ$2.9 *4*) **$γ_{72}$*476.56*** *10* (†$_γ$100 *2*) M1

583.98 *6*, (5/2+) **$γ_{276}$*307.48*** *8* (†$_γ$36 *3*) **$γ_{23}$*561.00*** *10* (†$_γ$78 *6*) **$γ_0$*583.9*** *1* (†$_γ$100 *5*)

646.02 *5*, (9/2−) **$γ_{486}$*160.40*** *2* (†$_γ$2.7 *2*) **$γ_{100}$*546.31*** *10* (†$_γ$100 *2*) M1

686.70 *7*, (5/2,7/2+) **$γ_{72}$*614.30*** *10* (†$_γ$61 *4*) **$γ_{23}$*663.67*** *10* (†$_γ$100 *5*)

A **703.8** *1*, (15/2−) **$γ_{100}$*604.3*** *1* (†$_γ$100) (E2)

711.93 *5*, (5/2+) **$γ_{549}$*163.04*** *4* (†$_γ$7.2 *17*) **$γ_{249}$*463.20*** *10* (†$_γ$94.8 *21*) M1(+E2): δ<0.82 **$γ_{72}$*639.50*** *10* (†$_γ$54 *4*) **$γ_{23}$*689.17*** *10* (†$_γ$100.0 *24*) **$γ_0$*712.00*** *20* (†$_γ$<50)

841.11 *9*, (5/2,7/2+) **$γ_{549}$*292.16*** *10* (†$_γ$42 *4*) **$γ_{72}$*768.90*** *20* (†$_γ$100 *5*) **$γ_{23}$*818.6*** *3* (†$_γ$40 *8*)

856.81 *7*, (5/2,7/2+) **$γ_{486}$*371.07*** *5* (†$_γ$35.0 *20*) **$γ_{276}$*580.4*** *3* (†$_γ$9.4 *24*) **$γ_{72}$*784.5*** *6* (†$_γ$4.7 *16*) **$γ_{23}$*833.9*** *2* (†$_γ$100 *5*)

886.43 *7*, (5/2,7/2,9/2+) **$γ_{549}$*337.80*** *10* (†$_γ$48 *4*) **$γ_{72}$*814.10*** *10* (†$_γ$100 *9*)

887.5 *2*, (13/2−) **$γ_{704}$*183.9*** *2* (†$_γ$7.0 *7*) **$γ_{100}$*788.0*** *2* (†$_γ$100 *5*) D+Q

917.78 *7*, (5/2−,7/2−) **$γ_{687}$*230.90*** *13* (†$_γ$12.9 *15*) **$γ_{584}$*333.17*** *26* (†$_γ$4.7 *11*) **$γ_{486}$*432.16*** *10* (†$_γ$100 *3*) M1 **$γ_{276}$*642.2*** *6* (†$_γ$4.7 *15*) **$γ_{72}$*845.46*** *10* (†$_γ$49.8 *24*)

949.07 *6*, (5/2−,7/2+) **$γ_{646}$*303.00*** *5* (†$_γ$75.4 *24*) **$γ_{549}$*400.67*** *16* (†$_γ$16.4 *24*) **$γ_{249}$*700.32*** *10* (†$_γ$100 *4*) **$γ_{23}$*926.0*** *5* (†$_γ$26 *3*)

1082.61 *6*, (7/2−) **$γ_{646}$*436.86*** *10* (†$_γ$25.0 *14*) M1 **$γ_{549}$*533.66*** *18* (†$_γ$9.4 *14*) **$γ_{486}$*596.77*** *10* (†$_γ$51.4 *20*) **$γ_{72}$*1010.4*** *3* (†$_γ$100 *3*)

B **1096.6** *2*, (15/2+) **$γ_{888}$*209.1*** *1* (†$_γ$58 *3*) **$γ_{704}$*392.8*** *1* (†$_γ$100 *5*) E1

1119.38 *8*, (7/2−,9/2) **$γ_{549}$*570.70*** *10* (†$_γ$79.6 *25*) **$γ_{249}$*870.36*** *10* (†$_γ$100 *6*) **$γ_{100}$*1020.4*** *3* (†$_γ$60 *3*)

1202.10 *11*, (5/2−,7/2,9/2+) **$γ_{857}$*345.13*** *16* (†$_γ$10.3 *19*) **$γ_{646}$*556.40*** *23* (†$_γ$13.3 *23*) **$γ_{549}$*653.20*** *20* (†$_γ$27.0 *23*) **$γ_{72}$*1129.8*** *3* (†$_γ$100 *4*)

1241.21 *10*, (7/2−,9/2−) **$γ_{486}$*755.57*** *10* (†$_γ$100 *4*) **$γ_{249}$*992.37*** *22* (†$_γ$10.7 *17*) **$γ_{100}$*1141.8*** *3* (†$_γ$99 *7*)

1319.4 *3*, (5/2,7/2,9/2) **$γ_{249}$*1070.6*** *3* (†$_γ$100)

A **1319.6** *2*, (19/2−) **$γ_{704}$*615.8*** *1* (†$_γ$100) E2

1433.86 *8*, (7/2−) **$γ_{918}$*515.9*** *5* (†$_γ$13 *8*) **$γ_{646}$*788.07*** *10* (†$_γ$95 *6*) **$γ_{584}$*849.60*** *10* (†$_γ$100 *7*) **$γ_{249}$*1185.6*** *3* (†$_γ$51 *7*) **$γ_{100}$*1334.3*** *3* (†$_γ$49 *4*)

1582.29 *12*, (5/2−,7/2,9/2) **$γ_{646}$*936.27*** *10* (†$_γ$100)

1611.09 *12*, (5/2−) **$γ_{1083}$*528.40*** *16* (†$_γ$12.3 *26*) **$γ_{549}$*1062.5*** *3* (†$_γ$51 *5*) **$γ_{249}$*1361.9*** *3* (†$_γ$12.3 *18*) **$γ_{72}$*1538.1*** *3* (†$_γ$100 *3*) **$γ_0$*1611.0*** *3* (†$_γ$7.9 *26*)

1629.66 *8*, (7/2−,9/2−) **$γ_{949}$*680.41*** *10* (†$_γ$46.8 *21*) **$γ_{918}$*712.00*** *20* (†$_γ$58 *3*) **$γ_{646}$*983.73*** *10* (†$_γ$100) **$γ_{486}$*1144.1*** *3* (†$_γ$20 *5*) **$γ_{249}$*1381.2*** *3* (†$_γ$18.1 *21*) **$γ_{100}$*1530.2*** *3* (†$_γ$40.1 *17*)

1663.18 *11*, (5/2−,7/2−,9/2−) **$γ_{918}$*745.40*** *10* (†$_γ$45.6 *23*) **$γ_{549}$*1114.3*** *3* (†$_γ$100 *4*)

B **1693.4** *2*, (19/2+) **$γ_{1097}$*597.0*** *2* (†$_γ$100)

(E2)

1724.46 *15*, (5/2$^-$) γ_{886}***837.9*** *5* (†$_\gamma$4.4 *15*) γ_{549}***1175.5*** *3* (†$_\gamma$21.9 *15*) γ_{249}***1475.7*** *3* (†$_\gamma$46.8 *19*) γ_{72}***1652.1*** *3* (†$_\gamma$31.4 *9*) γ_{23}***1701.6*** *3* (†$_\gamma$100 *3*)

1741.78 *8*, (5/2$^-$) γ_{949}***793.08*** *10* (†$_\gamma$29.1 *25*) γ_{857}***884.62*** *10* (†$_\gamma$37 *3*) γ_{712}***1029.4*** *3* (†$_\gamma$21.2 *25*) γ_{646}***1096.1*** *3* (†$_\gamma$100 *3*) γ_{486}***1256.1*** *3* (†$_\gamma$62 *3*) γ_{249}***1493.3*** *3* (†$_\gamma$15.8 *25*) γ_{23}***1718.4*** *5* (†$_\gamma$7 *3*)

1773.74 *10*, (5/2$^-$,7/2$^-$,9/2$^-$) γ_{918}***855.84*** *10* (†$_\gamma$87 *5*) γ_{857}***917.00*** *10* (†$_\gamma$58 *6*) γ_{841}***932.5*** *10* (†$_\gamma$19 *4*) γ_{584}***1190.6*** *3* (†$_\gamma$28 *4*) γ_{486}***1288.2*** *3* (†$_\gamma$53 *3*) γ_{249}***1525.1*** *3* (†$_\gamma$100 *4*)

1841.63 *11*, (5/2$^-$,7/2$^-$) γ_{949}***891.92*** *20* (†$_\gamma$27.0 *23*) γ_{841}***1000.4*** *3* (†$_\gamma$5.7 *17*) γ_{712}***1129.8*** *3* (†$_\gamma$88 *3*) γ_{646}***1196.8*** *3* (†$_\gamma$36.3 *23*) γ_{486}***1355.5*** *3* (†$_\gamma$12.6 *13*) γ_{249}***1593.1*** *3* (†$_\gamma$100 *3*) γ_{72}***1769.7*** *3* (†$_\gamma$12.0 *6*)

A **2002.2** *2*, (23/2$^-$) γ_{1320}***682.5*** *1* (†$_\gamma$100) E2

2045.7 *2*, (21/2$^+$) γ_{1693}***352.6*** *3* (†$_\gamma$28 *9*) γ_{1320}***726.0*** *2* (†$_\gamma$100 *14*)

2120.3 *4*, (23/2$^-$) γ_{1319}***800.3*** *4* (†$_\gamma$100)

2180.6 *2*, (25/2$^-$) γ_{2120}***59.7*** γ_{2002}***178.5*** *1* (†$_\gamma$100 *7*) M1,E2

B **2219.9** *2*, (23/2$^+$) γ_{1693}***526.5*** *1* (†$_\gamma$100) (E2)

2375.3 *2*, (27/2$^-$) γ_{2181}***194.8*** *1* (†$_\gamma$100) M1,E2

2468.6 *2*, (25/2$^+$) γ_{2220}***248.8*** *1* (†$_\gamma$100 *5*) (M1,E2) γ_{2181}***288.4*** *4* (†$_\gamma$9 *4*) γ_{2120}***348.1*** *4* (†$_\gamma$7.9 *18*) γ_{2046}***423.5*** *4* (†$_\gamma$13 *4*) γ_{2002}***466.0*** *2* (†$_\gamma$3.9 *7*)

B **2782.6** *2*, (27/2$^+$) γ_{2469}***313.9*** *3* (?) (†$_\gamma$7.5) γ_{2220}***562.7*** *1* (†$_\gamma$100 *2*) E2

2847.3 *2*, (29/2$^+$) γ_{2783}***64.8*** *3* (†$_\gamma$25) (M1) γ_{2469}***378.6*** *1* (†$_\gamma$100 *5*) γ_{2375}***472.2*** *2* (†$_\gamma$56 *6*)

3108.2 *4* (?) γ_{2783}***325.7*** *3* (?) (†$_\gamma$100)

3115.7 *2*, (31/2$^+$) γ_{2847}***268.4*** *1* (†$_\gamma$100) M1,E2

3128.6 *3*, (31/2$^-$) γ_{2375}***753.4*** *2* (†$_\gamma$100)

3159.1 *4* (?), (29/2$^-$) γ_{2181}***978.5*** *3* (?) (†$_\gamma$100)

3196.0 *5*, (31/2$^+$) γ_{2847}***348.6*** *4* (†$_\gamma$100)

3274.0 *3*, (33/2$^+$) γ_{3196}***77.5*** γ_{3129}***146.0*** *4* (†$_\gamma$1.34 *14*) γ_{3116}***158.3*** *1* (†$_\gamma$100 *5*)

3287.7 *4* (?) γ_{2847}***440.4*** *3* (?) (†$_\gamma$100)

3808.4 *3*, (35/2$^-$) γ_{3129}***679.7*** *1* (†$_\gamma$100)

3900.6 *3*, (35/2$^+$) γ_{3116}***784.9*** *2* (†$_\gamma$100)

4148.0 *3*, (37/2$^+$) γ_{3901}***247.4*** *1* (†$_\gamma$16 *2*) γ_{3808}***339.8*** *4* (†$_\gamma$1.8 *2*) γ_{3274}***874.0*** *1* (†$_\gamma$100 *5*)

4564.8 *3*, (39/2$^+$) γ_{3901}***664.1*** *1* (†$_\gamma$100)

4765.4 *5*, (39/2$^-$) γ_{3808}***957.0*** *4* (†$_\gamma$100)

4773.9 *3*, (41/2$^+$) γ_{4565}***209.0*** *2* (†$_\gamma$40 *2*) γ_{4148}***626.0*** *1* (†$_\gamma$100 *5*)

4840.2 *3*, (39/2$^-$) γ_{3808}***1031.7*** *2* (†$_\gamma$100)

5034.2 *4*, (41/2$^-$) γ_{4148}***886.0*** *4* (†$_\gamma$100)

5162.4 *3*, (45/2$^+$) γ_{4774}***388.5*** *1* (†$_\gamma$100)

5363.6 *5* γ_{4765}***598.2*** *4* (†$_\gamma$100)

5467.2 *4*, (43/2$^-$) γ_{4840}***627.0*** *2* (†$_\gamma$100)

5474.8 *3*, (43/2$^-$) γ_{5034}***440.5*** *4* (†$_\gamma$16 *2*) γ_{4840}***634.0*** *4* (†$_\gamma$16 *8*) γ_{4774}***701.1*** *2* (†$_\gamma$100 *10*)

5656.4 *6* γ_{4765}***891.0*** *4* (†$_\gamma$100)

5818.7 *4*, (45/2$^-$) γ_{5475}***343.9*** *4* (†$_\gamma$100 *33*) γ_{5467}***351.5*** *4* (†$_\gamma$33 *8*)

5924.6 *4*, (45/2$^-$) γ_{5467}***457.5*** *3* (†$_\gamma$100 *10*) γ_{5364}***561.0*** *4* (†$_\gamma$13 *2*)

5985.1 *3*, (47/2$^-$) γ_{5819}***166.6*** *4* (†$_\gamma$11 *6*) γ_{5475}***510.5*** *4* (†$_\gamma$18 *10*) γ_{5162}***822.7*** *2* (†$_\gamma$100 *10*)

6165.3 *4*, (49/2$^-$) γ_{5925}***240.7*** *3* (†$_\gamma$100 *24*) γ_{5819}***346.4*** *4* (†$_\gamma$35 *23*)

6169.9 *4*, (49/2$^-$) γ_{5925}***245.3*** *4* (†$_\gamma$100 *10*) γ_{5819}***351.1*** *4* (†$_\gamma$100 *50*)

6485.1 *3*, (49/2$^+$) γ_{5162}***1322.6*** *1* (†$_\gamma$100)

6594.0 *4*, (51/2$^-$) γ_{6170}***423.9*** *4* (†$_\gamma$8 *2*) γ_{6165}***428.7*** *2* (†$_\gamma$100 *10*)

6673.7 *5* (?), (49/2$^-$) γ_{5819}***855.1*** *4* (?) (†$_\gamma$100)

6879.9 *3*, (51/2$^-$) γ_{6674}***206.3*** *4* (†$_\gamma$4 *1*) γ_{5985}***894.8*** *1* (†$_\gamma$100 *10*)

7248.1 *4*, (53/2$^-$) γ_{6880}***368.2*** *1* (†$_\gamma$100 *10*) γ_{6594}***654.6*** *4* (†$_\gamma$24 *3*)

7264.6 *3*, (53/2$^+$) γ_{6594}***670.8*** *4* (†$_\gamma$0.9 *1*) γ_{6485}***779.6*** *1* (†$_\gamma$100 *5*)

7295.8 *4*, (53/2$^-$) γ_{6880}***416.3*** *4* (†$_\gamma$100 *38*) γ_{6594}***700.7*** *4* (†$_\gamma$100 *13*)

7304.3 *3*, (53/2$^+$) γ_{6594}***710.4*** *4* (†$_\gamma$3.8 *4*) γ_{6485}***819.1*** *1* (†$_\gamma$100 *5*)

7618.8 *4*, (55/2$^+$) γ_{7296}***322.3*** *4* (†$_\gamma$100)

7676.3 *4*, (55/2$^-$) γ_{7248}***428.2*** *4* (†$_\gamma$100)

7764.5 *5*, (57/2$^-$) γ_{7619}***145.1*** *4* (†$_\gamma$100)

7882.4 *4*, (57/2$^-$) γ_{7765}***117.2*** *4* (†$_\gamma$4.2 *4*) γ_{7676}***205.9*** *2* (†$_\gamma$100 *10*) γ_{7248}***634.6*** *2*

($\dagger_\gamma$42 14)

7901.6 3, (57/2$^+$) γ_{7619}**282.8** 4 ($\dagger_\gamma$1.2 6) γ_{7304}**597.2** 1 ($\dagger_\gamma$44 6) γ_{7265}**637.1** 1 ($\dagger_\gamma$100 2) γ_{7248}**653.2** 4 ($\dagger_\gamma$2.1 12)

8283.0 4, (61/2$^+$) γ_{7902}**381.4** 1 ($\dagger_\gamma$100 2) γ_{7882}**400.5** 4 ($\dagger_\gamma$3.2 11)

8335.8 4, (59/2$^-$) γ_{7676}**659.7** 2 ($\dagger_\gamma$100)

8802.4 4, (61/2$^-$) γ_{8336}**466.8** 2 ($\dagger_\gamma$100 10) γ_{7882}**919.9** 4 ($\dagger_\gamma$28 3)

9035.0 5, (63/2) γ_{8283}**752.1** 4 ($\dagger_\gamma$100)

9123.5 4, (63/2$^-$) γ_{8802}**321.2** 2 ($\dagger_\gamma$100 10) γ_{8283}**840.3** 4 ($\dagger_\gamma$53 12)

9379.5 4, (65/2$^+$) γ_{9124}**256.2** 4 ($\dagger_\gamma$2.6 3) γ_{8283}**1096.5** 1 ($\dagger_\gamma$100 5)

9406.2 4, (65/2) γ_{8283}**1123.2** 2 ($\dagger_\gamma$100)

9445.4 5, (63/2) γ_{8283}**1162.4** 4 ($\dagger_\gamma$100)

9490.2 4, (65/2$^+$) γ_{9124}**366.9** 4 ($\dagger_\gamma$33 3) γ_{9035}**455.3** 4 ($\dagger_\gamma$43 4) γ_{8283}**1207.0** 2 ($\dagger_\gamma$100 5)

9530.3 5, (63/2$^-$) γ_{8283}**1247.3** 4 ($\dagger_\gamma$100)

9708.7 5, (67/2) γ_{9406}**302.5** 2 ($\dagger_\gamma$100)

9733.6 4, (65/2$^+$) γ_{9445}**288.2** 4 ($\dagger_\gamma$78 33) γ_{8283}**1450.6** 4 ($\dagger_\gamma$100 33)

9750.5 4, (67/2$^-$) γ_{9530}**220.2** 4 ($\dagger_\gamma$1.9 2) γ_{9490}**260.3** 2 ($\dagger_\gamma$11 7) γ_{9380}**371.0** 1 ($\dagger_\gamma$100 5)

10032.2 4, (67/2$^+$) γ_{9734}**298.6** 2 ($\dagger_\gamma$75 39) γ_{9380}**652.7** 2 ($\dagger_\gamma$100 10)

10296.7 6, (71/2) γ_{9709}**588.0** 4 ($\dagger_\gamma$100)

10350.5 4, (69/2$^+$) γ_{10032}**318.2** 2 ($\dagger_\gamma$100 33) γ_{9380}**970.9** 2 ($\dagger_\gamma$100 10)

10620.3 6 γ_{9380}**1240.8** 4 ($\dagger_\gamma$100)

10772.3 6, (71/2) γ_{9709}**1063.6** 4 ($\dagger_\gamma$100)

10792.0 4, (71/2$^-$) γ_{10351}**441.3** 4 ($\dagger_\gamma$3.4 4) γ_{9751}**1041.5** 1 ($\dagger_\gamma$100 5)

10997.7 5, (69/2$^-$) γ_{9751}**1247.0** 4 ($\dagger_\gamma$100)

11200.5 6, (71/2) γ_{9751}**1450.0** 4 ($\dagger_\gamma$100)

11201.9 6 γ_{10351}**851.4** 4 ($\dagger_\gamma$100)

11274.8 4, (71/2$^-$) γ_{10998}**276.9** 4 ($\dagger_\gamma$100 10) γ_{10351}**924.3** 4 ($\dagger_\gamma$86 9) γ_{9751}**1523.9** 4 ($\dagger_\gamma$29 7)

11425.9 6, (73/2$^+$) γ_{10351}**1075.4** 4 ($\dagger_\gamma$100)

11593.0 4, (73/2$^-$) γ_{11275}**317.6** 4 ($\dagger_\gamma$30 15) γ_{10792}**801.4** 2 ($\dagger_\gamma$100 10)

11726.4 4, (75/2$^-$) γ_{11593}**134.3** 4 ($\dagger_\gamma$1.2 1) γ_{10792}**934.2** 2 ($\dagger_\gamma$100 10)

11756.6 7 γ_{11426}**330.7** 4 ($\dagger_\gamma$100)

11760.6 7 γ_{10772}**988.3** 4 ($\dagger_\gamma$100)

11830.0 6, (73/2) γ_{10792}**1038.0** 4 ($\dagger_\gamma$100)

11956.8 4, (75/2$^-$) γ_{10792}**1164.8** 2 ($\dagger_\gamma$100)

12704.0 4, (75/2$^-$) γ_{10792}**1912.0** 2 ($\dagger_\gamma$100)

12719.9 5, (79/2$^-$) γ_{11957}**763.0** 4 ($\dagger_\gamma$21 2) γ_{11726}**993.6** 2 ($\dagger_\gamma$100 10)

12754.2 5, (79/2$^-$) γ_{11726}**1027.8** 4 ($\dagger_\gamma$100)

13019.5 5, (79/2$^-$) γ_{11726}**1293.1** 4 ($\dagger_\gamma$100)

13249.3 7 γ_{11830}**1419.3** 4 ($\dagger_\gamma$100)

13460.7 6, (81/2) γ_{12754}**706.6** 4 ($\dagger_\gamma$60 20) γ_{12720}**740.8** 4 ($\dagger_\gamma$100 20)

13522.7 6 γ_{12704}**818.7** 4 ($\dagger_\gamma$100)

13524.6 6 γ_{11726}**1798.2** 4 ($\dagger_\gamma$100)

13791.2 6, (83/2$^-$) γ_{13020}**771.8** 4 ($\dagger_\gamma$14 2) γ_{12720}**1071.3** 4 ($\dagger_\gamma$100 14)

13850.4 6, (79/2$^-$) γ_{12704}**1146.4** 4 ($\dagger_\gamma$100)

14538.9 7 γ_{13791}**747.7** 4 ($\dagger_\gamma$100)

14900.4 7 γ_{13850}**1050.0** 4 ($\dagger_\gamma$100)

15316.9 7 γ_{13850}**1466.5** 4 ($\dagger_\gamma$100)

15343.4 7 γ_{13850}**1493.0** 4 ($\dagger_\gamma$100)

15641.3 7, (87/2$^-$) γ_{13791}**1850.0** 4 ($\dagger_\gamma$100)

16589.1 8, (91/2$^-$) γ_{15641}**947.8** 4 ($\dagger_\gamma$100)

C **x**, J≈(57/2)

C **726.5+x**, J+2 γ_{x}**726.5** 5 $I^{(2)}$=93.5, $\hbar\omega$=0.374

C **1495.8+x**, J+4 γ_{727+x}**769.3** 5 ($\dagger_\gamma$0.30 2) $I^{(2)}$=95.5, $\hbar\omega$=0.395

C **2307.0+x**, J+6 γ_{1496+x}**811.2** 3 ($\dagger_\gamma$0.61 3) $I^{(2)}$=93.5, $\hbar\omega$=0.416

C **3161.0+x**, J+8 γ_{2307+x}**854.0** 3 ($\dagger_\gamma$1.04 5) $I^{(2)}$=92.0, $\hbar\omega$=0.438

C **4058.5+x**, J+10 γ_{3161+x}**897.5** 3 ($\dagger_\gamma$0.97 5) $I^{(2)}$=88.5, $\hbar\omega$=0.460

C **5001.2+x**, J+12 γ_{4059+x}**942.7** 3 ($\dagger_\gamma$1.00 5) $I^{(2)}$=87.9, $\hbar\omega$=0.483

C **5989.4+x**, J+14 γ_{5001+x}**988.2** 3 ($\dagger_\gamma$0.97 5) $I^{(2)}$=87.0, $\hbar\omega$=0.506

C **7023.6+x**, J+16 γ_{5989+x}**1034.2** 3 ($\dagger_\gamma$1.02 6) $I^{(2)}$=83.7, $\hbar\omega$=0.529

C **8105.6+x**, J+18 γ_{7024+x}**1082.0** 3 ($\dagger_\gamma$1.03 5) $I^{(2)}$=83.3, $\hbar\omega$=0.553

C **9235.6+x**, J+20 γ_{8106+x}**1130.0** 4 ($\dagger_\gamma$1.07 6) $I^{(2)}$=83.3, $\hbar\omega$=0.577

C **10413.6+x**, J+22 γ_{9236+x}**1178.0** 3 ($\dagger_\gamma$0.96 5) $I^{(2)}$=80.2, $\hbar\omega$=0.601

C **11641.5+x**, J+24 $\gamma_{10414+x}$**1227.9** 3 ($\dagger_\gamma$0.94 5) $I^{(2)}$=80.0, $\hbar\omega$=0.626

C **12919.4+x**, J+26 $\gamma_{11642+x}$**1277.9** 3

(†$_\gamma$0.784) $I^{(2)}$=79.5, $\hbar\omega$=0.652

C **14247.6+x**, J+28 $\gamma_{12919+x}$**1328.2**8 (†$_\gamma$0.634) $I^{(2)}$=78.3, $\hbar\omega$=0.677

C **15626.9+x**, J+30 $\gamma_{14248+x}$**1379.3**5 (†$_\gamma$0.484) $I^{(2)}$=76.3, $\hbar\omega$=0.703

C **17058.6+x**, J+32 $\gamma_{15627+x}$**1431.7**7 (†$_\gamma$0.252) $I^{(2)}$=78.0, $\hbar\omega$=0.729

C **18541.6+x**, J+34 $\gamma_{17059+x}$**1483.0**7 (†$_\gamma$0.162) $I^{(2)}$=76.6, $\hbar\omega$=0.755

C **20076.8+x**, J+36 $\gamma_{18542+x}$**1535.2**10 (†$_\gamma$0.05015)

D **y**, J≈(49/2)

D **602.1+y**, J+2 γ_y**602.1**8 (†$_\gamma$0.227) $I^{(2)}$=90.3, $\hbar\omega$=0.312

D **1248.5+y**, J+4 γ_{602+y}**646.4**5 (†$_\gamma$0.398) $I^{(2)}$=87.9, $\hbar\omega$=0.335

D **1940.4+y**, J+6 γ_{1249+y}**691.9**5 (†$_\gamma$1.0415) $I^{(2)}$=87.9, $\hbar\omega$=0.357

D **2677.8+y**, J+8 γ_{1940+y}**737.4**3 (†$_\gamma$1.0415) $I^{(2)}$=87.0, $\hbar\omega$=0.380

D **3461.2+y**, J+10 γ_{2678+y}**783.4**3 (†$_\gamma$1.1215) $I^{(2)}$=88.3, $\hbar\omega$=0.403

D **4289.9+y**, J+12 γ_{3461+y}**828.7**3 (†$_\gamma$0.9113) $I^{(2)}$=86.8, $\hbar\omega$=0.426

D **5164.7+y**, J+14 γ_{4290+y}**874.8**3 (†$_\gamma$1.0813) $I^{(2)}$=85.5, $\hbar\omega$=0.449

D **6086.3+y**, J+16 γ_{5165+y}**921.6**4 (†$_\gamma$0.9612) $I^{(2)}$=86.0, $\hbar\omega$=0.472

D **7054.4+y**, J+18 γ_{6086+y}**968.1**4 (†$_\gamma$1.0013) $I^{(2)}$=84.0, $\hbar\omega$=0.496

D **8070.1+y**, J+20 γ_{7054+y}**1015.7**4 (†$_\gamma$0.9812) $I^{(2)}$=84.6, $\hbar\omega$=0.520

D **9133.1+y**, J+22 γ_{8070+y}**1063.0**5 (†$_\gamma$0.9713) $I^{(2)}$=84.2, $\hbar\omega$=0.543

D **10243.6+y**, J+24 γ_{9133+y}**1110.5**6 (†$_\gamma$1.0014) $I^{(2)}$=83.2, $\hbar\omega$=0.567

D **11402.2+y**, J+26 $\gamma_{10244+y}$**1158.6**6 (†$_\gamma$0.9113) $I^{(2)}$=82.8, $\hbar\omega$=0.591

D **12609.1+y**, J+28 $\gamma_{11402+y}$**1206.9**8 (†$_\gamma$1.0217) $I^{(2)}$=83.5, $\hbar\omega$=0.615

D **13863.9+y**, J+30 $\gamma_{12609+y}$**1254.8**6 (†$_\gamma$0.7710) $I^{(2)}$=82.6, $\hbar\omega$=0.639

D **15167.1+y**, J+32 $\gamma_{13864+y}$**1303.2**8 (†$_\gamma$0.6213) $I^{(2)}$=82.0, $\hbar\omega$=0.664

D **16519.1+y**, J+34 $\gamma_{15167+y}$**1352.0**8 (†$_\gamma$0.487) $I^{(2)}$=84.2, $\hbar\omega$=0.688

D **17918.6+y**, J+36 $\gamma_{16519+y}$**1399.5**9 (†$_\gamma$0.346) $I^{(2)}$=82.0, $\hbar\omega$=0.712

D **19366.9+y**, J+38 $\gamma_{17919+y}$**1448.3**9 (†$_\gamma$0.214) $I^{(2)}$=85.7, $\hbar\omega$=0.736

D **20861.9+y**, J+40 $\gamma_{19367+y}$**1495.0**11 (†$_\gamma$0.134)

E **z**, J≈(55/2)

E **681.5+z**, J+2 γ_z**681.5**10 (†$_\gamma$0.3110) $I^{(2)}$=86.6, $\hbar\omega$=0.352

E **1409.2+z**, J+4 γ_{682+z}**727.7**8 (†$_\gamma$0.656) $I^{(2)}$=86.6, $\hbar\omega$=0.375

E **2183.1+z**, J+6 γ_{1409+z}**773.9**5 (†$_\gamma$0.998) $I^{(2)}$=84.6, $\hbar\omega$=0.399

E **3004.3+z**, J+8 γ_{2183+z}**821.2**8 (†$_\gamma$0.9218) $I^{(2)}$=85.8, $\hbar\omega$=0.422

E **3872.1+z**, J+10 γ_{3004+z}**867.8**8 (†$_\gamma$1.0814) $I^{(2)}$=83.3, $\hbar\omega$=0.446

E **4787.9+z**, J+12 γ_{3872+z}**915.8**5 (†$_\gamma$0.9911) $I^{(2)}$=83.7, $\hbar\omega$=0.470

E **5751.5+z**, J+14 γ_{4788+z}**963.6**10 (†$_\gamma$0.8610) $I^{(2)}$=80.5, $\hbar\omega$=0.494

E **6764.8+z**, J+16 γ_{5752+z}**1013.3**5 (†$_\gamma$1.0813) $I^{(2)}$=82.5, $\hbar\omega$=0.519

E **7826.6+z**, J+18 γ_{6765+z}**1061.8**5 (†$_\gamma$0.9512) $I^{(2)}$=80.6, $\hbar\omega$=0.543

E **8938.0+z**, J+20 γ_{7827+z}**1111.4**5 (†$_\gamma$1.0412) $I^{(2)}$=81.0, $\hbar\omega$=0.568

E **10098.8+z**, J+22 γ_{8938+z}**1160.8**5 (†$_\gamma$0.9912) $I^{(2)}$=82.0, $\hbar\omega$=0.593

E **11308.4+z**, J+24 $\gamma_{10099+z}$**1209.6**5 (†$_\gamma$1.0611) $I^{(2)}$=81.3, $\hbar\omega$=0.617

E **12567.2+z**, J+26 $\gamma_{11308+z}$**1258.8**5 (†$_\gamma$0.9411) $I^{(2)}$=78.7, $\hbar\omega$=0.642

E **13876.8+z**, J+28 $\gamma_{12567+z}$**1309.6**7 (†$_\gamma$0.658) $I^{(2)}$=83.2, $\hbar\omega$=0.667

E **15234.5+z**, J+30 $\gamma_{13877+z}$**1357.7**7 (†$_\gamma$0.527) $I^{(2)}$=79.2, $\hbar\omega$=0.691

E **16642.7+z**, J+32 $\gamma_{15235+z}$**1408.2**8 (†$_\gamma$0.486) $I^{(2)}$=82.3, $\hbar\omega$=0.716

E **18099.5+z**, J+34 $\gamma_{16643+z}$**1456.8**9 (†$_\gamma$0.325) $I^{(2)}$=83.3, $\hbar\omega$=0.740

E **19604.3+z**, J+36 $\gamma_{18100+z}$**1504.8**10 (†$_\gamma$0.157)

F **u**, J≈(63/2)

F **768.6+u**, J+2 γ_0**768.6**5 $I^{(2)}$=83.9, $\hbar\omega$=0.396

F **1584.9+u**, J+4 γ_{769+u}**816.3**10 (†$_\gamma$0.418) $I^{(2)}$=81.6, $\hbar\omega$=0.420

F **2450.2+u**, J+6 γ_{1585+u}**865.3**6 (†$_\gamma$0.6112) $I^{(2)}$=82.3, $\hbar\omega$=0.445

F **3364.1+u**, J+8 γ_{2450+u}**913.9**5 (†$_\gamma$0.8810) $I^{(2)}$=83.3, $\hbar\omega$=0.469

F **4326.0+u**, J+10 γ_{3364+u}**961.9**6 (†$_\gamma$0.9512) $I^{(2)}$=84.2, $\hbar\omega$=0.493

F **5335.4+u**, J+12 γ_{4326+u}**1009.4**6 (†$_\gamma$1.0413) $I^{(2)}$=84.7, $\hbar\omega$=0.517

F **6392.0+u**, J+14 γ_{5335+u}***1056.6***5
($\dagger_\gamma$0.99*9*) $I^{(2)}$=*84.7, ħω=0.540*

F **7495.8+u**, J+16 γ_{6392+u}***1103.8***8
($\dagger_\gamma$1.01*11*) $I^{(2)}$=*82.1, ħω=0.564*

F **8648.3+u**, J+18 γ_{7496+u}***1152.5***6
($\dagger_\gamma$0.83*13*) $I^{(2)}$=*82.3, ħω=0.588*

F **9849.4+u**, J+20 γ_{8648+u}***1201.1***7
($\dagger_\gamma$1.12*12*) $I^{(2)}$=*84.4, ħω=0.612*

F **11097.9+u**, J+22 γ_{9849+u}***1248.5***6
($\dagger_\gamma$1.10*14*) $I^{(2)}$=*83.3, ħω=0.636*

F **12394.4+u**, J+24 $\gamma_{11098+u}$***1296.5***7
($\dagger_\gamma$1.08*12*) $I^{(2)}$=*82.8, ħω=0.660*

F **13739.2+u**, J+26 $\gamma_{12394+u}$***1344.8***7
($\dagger_\gamma$0.77*13*) $I^{(2)}$=*83.2, ħω=0.684*

F **15132.1+u**, J+28 $\gamma_{13739+u}$***1392.9***10
($\dagger_\gamma$0.70*7*) $I^{(2)}$=*86.2, ħω=0.708*

F **16571.4+u**, J+30 $\gamma_{15132+u}$***1439.3***10
($\dagger_\gamma$0.42*6*) $I^{(2)}$=*86.6, ħω=0.731*

F **18056.9+u**, J+32 $\gamma_{16571+u}$***1485.5***10

G **v**, J≈(53/2)

G **709.3+v**, J+2 γ_0***709.3***5 $I^{(2)}$=*77.5, ħω=0.368*

G **1470.2+v**, J+4 γ_{709+v}***760.9***5 $I^{(2)}$=*78.4, ħω=0.393*

G **2282.1+v**, J+6 γ_{1470+v}***811.9***3 $I^{(2)}$=*77.5, ħω=0.419*

G **3145.6+v**, J+8 γ_{2282+v}***863.5***7 $I^{(2)}$=*79.5, ħω=0.444*

G **4059.8+v**, J+10 γ_{3146+v}***913.8***4
$I^{(2)}$=*77.2, ħω=0.470*

G **5025.0+v**, J+12 γ_{4060+v}***965.6***4
$I^{(2)}$=*76.0, ħω=0.496*

G **6043.2+v**, J+14 γ_{5025+v}***1018.2***5
$I^{(2)}$=*75.3, ħω=0.522*

G **7114.5+v**, J+16 γ_{6043+v}***1071.3***5
$I^{(2)}$=*74.9, ħω=0.549*

G **8239.2+v**, J+18 γ_{7115+v}***1124.7***5
$I^{(2)}$=*76.3, ħω=0.575*

G **9416.3+v**, J+20 γ_{8239+v}***1177.1***5
$I^{(2)}$=*76.6, ħω=0.602*

G **10645.6+v**, J+22 γ_{9416+v}***1229.3***5
$I^{(2)}$=*74.9, ħω=0.628*

G **11928.3+v**, J+24 $\gamma_{10646+v}$***1282.7***5
$I^{(2)}$=*75.9, ħω=0.655*

G **13263.7+v**, J+26 $\gamma_{11928+v}$***1335.4***7
$I^{(2)}$=*74.9, ħω=0.681*

G **14652.5+v**, J+28 $\gamma_{13264+v}$***1388.8***7
$I^{(2)}$=*72.2, ħω=0.708*

G **16096.7+v**, J+30 $\gamma_{14653+v}$***1444.2***6
$I^{(2)}$=*70.8, ħω=0.736*

G **17597.4+v**, J+32 $\gamma_{16097+v}$***1500.7***8

H **w**, J≈(55/2)

H **739+w**, J+2 γ_0***739***1 $I^{(2)}$=*77.8, ħω=0.382*

H **1529.4+w**, J+4 γ_{739+w}***790.4***8 $I^{(2)}$=*83.0, ħω=0.407*

H **2368.0+w**, J+6 γ_{1529+w}***838.6***6
$I^{(2)}$=*78.3, ħω=0.432*

H **3257.7+w**, J+8 γ_{2368+w}***889.7***5
$I^{(2)}$=*77.5, ħω=0.458*

H **4199.0+w**, J+10 γ_{3258+w}***941.3***5
$I^{(2)}$=*77.5, ħω=0.484*

H **5191.9+w**, J+12 γ_{4199+w}***992.9***7
$I^{(2)}$=*77.7, ħω=0.509*

H **6236.3+w**, J+14 γ_{5192+w}***1044.4***8
$I^{(2)}$=*76.9, ħω=0.535*

H **7332.7+w**, J+16 γ_{6236+w}***1096.4***8
$I^{(2)}$=*74.3, ħω=0.562*

H **8482.9+w**, J+18 γ_{7333+w}***1150.2***5
$I^{(2)}$=*76.5, ħω=0.588*

H **9685.4+w**, J+20 γ_{8483+w}***1202.5***5
$I^{(2)}$=*75.2, ħω=0.615*

H **10941.1+w**, J+22 γ_{9685+w}***1255.7***5
$I^{(2)}$=*74.6, ħω=0.641*

H **12250.4+w**, J+24 $\gamma_{10941+w}$***1309.3***7
$I^{(2)}$=*73.4, ħω=0.668*

H **13614.2+w**, J+26 $\gamma_{12250+w}$***1363.8***5
$I^{(2)}$=*78.7, ħω=0.695*

H **15028.8+w**, J+28 $\gamma_{13614+w}$***1414.6***5
$I^{(2)}$=*67.6, ħω=0.722*

H **16502.6+w**, J+30 $\gamma_{15029+w}$***1473.8***8

I **r**, J≈(55/2)

I **758+r**, J+2 γ_0***758***1

I **1566+r**, J+4 γ_{758+r}***808***1 $I^{(2)}$=*79.8, ħω=0.417*

I **2424.1+r**, J+6 γ_{1566+r}***858.1***5 $I^{(2)}$=*77.4, ħω=0.442*

I **3333.9+r**, J+8 γ_{2424+r}***909.8***5 $I^{(2)}$=*79.7, ħω=0.467*

I **4293.9+r**, J+10 γ_{3334+r}***960.0***5
$I^{(2)}$=*77.5, ħω=0.493*

I **5305.5+r**, J+12 γ_{4294+r}***1011.6***5
$I^{(2)}$=*76.0, ħω=0.519*

I **6369.7+r**, J+14 γ_{5306+r}***1064.2***5
$I^{(2)}$=*78.0, ħω=0.545*

I **7485.2+r**, J+16 γ_{6370+r}***1115.5***6
$I^{(2)}$=*73.7, ħω=0.571*

I **8655.0+r**, J+18 γ_{7485+r}***1169.8***6
$I^{(2)}$=*77.7, ħω=0.598*

I **9876.3+r**, J+20 γ_{8655+r}***1221.3***7
$I^{(2)}$=*75.3, ħω=0.624*

I **11150.7+r**, J+22 γ_{9876+r}***1274.4***5
$I^{(2)}$=*74.3, ħω=0.651*

I **12478.9+r**, J+24 $\gamma_{11151+r}$***1328.2***7
$I^{(2)}$=*75.9, ħω=0.677*

I **13859.8+r**, J+26 $\gamma_{12479+r}$***1380.9***8
$I^{(2)}$=*73.9, ħω=0.704*

I **15294.8+r**, J+28 $\gamma_{13860+r}$***1435***1
$I^{(2)}$=*74.1*, $\hbar\omega$=*0.731*

I **16783.8+r**, J+30 $\gamma_{15295+r}$***1489***1

J **s**, J≈(57/2)

J **785+s**, J+2 γ_{0}***785***1 $I^{(2)}$=*85.1*, $\hbar\omega$=*0.404*

J **1617+s**, J+4 γ_{785+s}***832***1 $I^{(2)}$=*76.9*, $\hbar\omega$=*0.429*

J **2501+s**, J+6 γ_{1617+s}***884***1 $I^{(2)}$=*78.6*, $\hbar\omega$=*0.455*

J **3435.9+s**, J+8 γ_{2501+s}***934.9***5 $I^{(2)}$=*78.4*, $\hbar\omega$=*0.480*

J **4421.8+s**, J+10 γ_{3436+s}***985.9***5
$I^{(2)}$=*75.6*, $\hbar\omega$=*0.506*

J **5460.6+s**, J+12 γ_{4422+s}***1038.8***5
$I^{(2)}$=*78.3*, $\hbar\omega$=*0.532*

J **6550.5+s**, J+14 γ_{5461+s}***1089.9***5
$I^{(2)}$=*74.9*, $\hbar\omega$=*0.558*

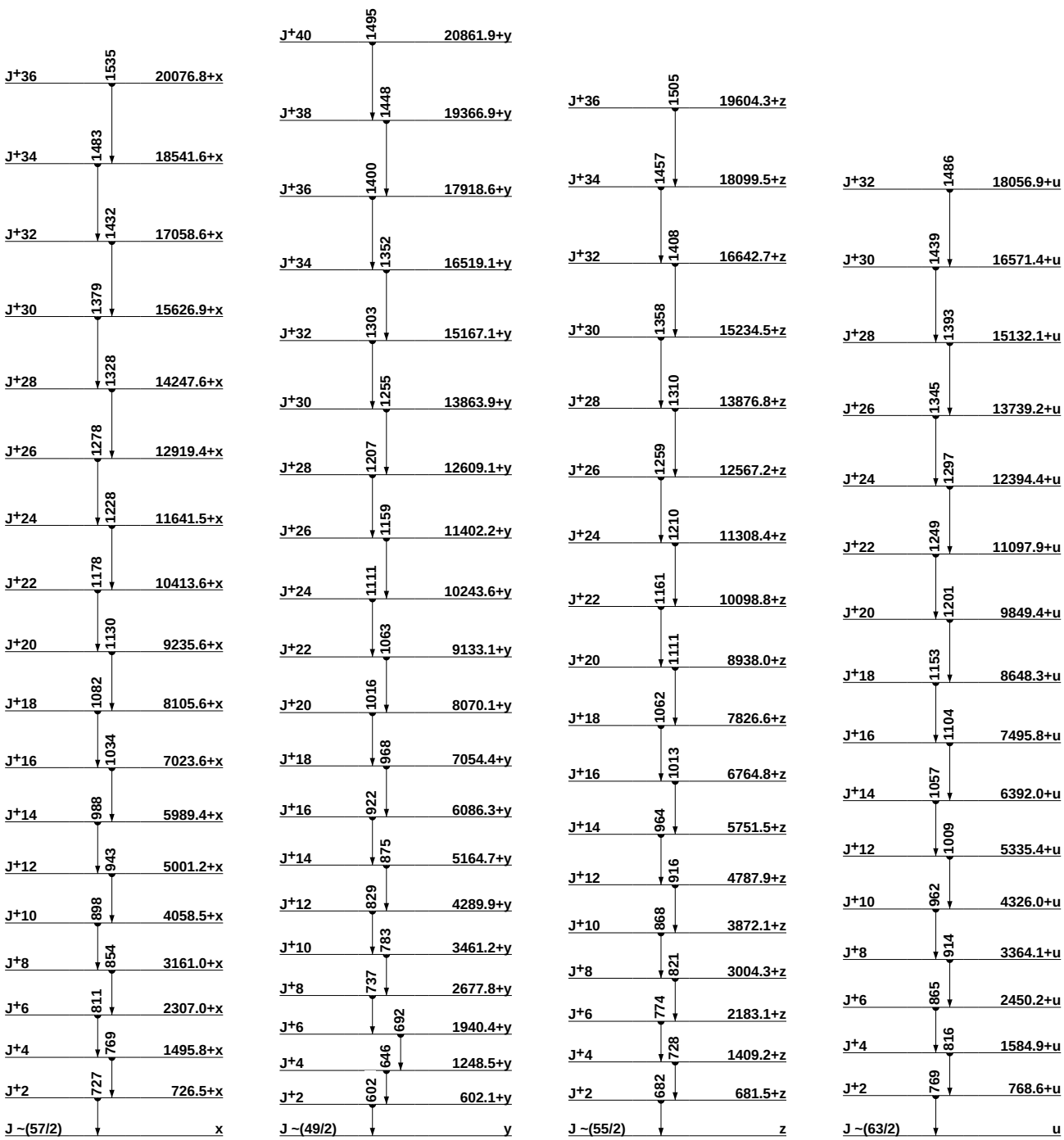
J **7693.8+s**, J+16 γ_{6551+s}***1143.3***7
$I^{(2)}$=*74.6*, $\hbar\omega$=*0.585*

J **8890.7+s**, J+18 γ_{7694+s}***1196.9***7
$I^{(2)}$=*76.9*, $\hbar\omega$=*0.611*

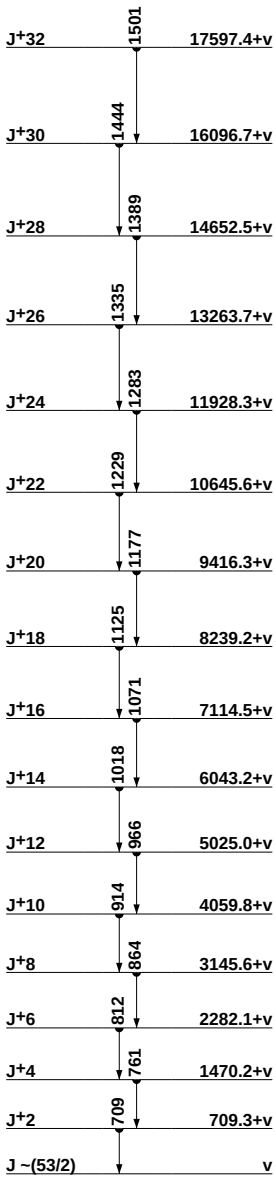
J **10139.6+s**, J+20 γ_{8891+s}***1248.9***7
$I^{(2)}$=*75.3*, $\hbar\omega$=*0.638*

J **11441.6+s**, J+22 $\gamma_{10140+s}$***1302***1
$I^{(2)}$=*74.1*, $\hbar\omega$=*0.664*

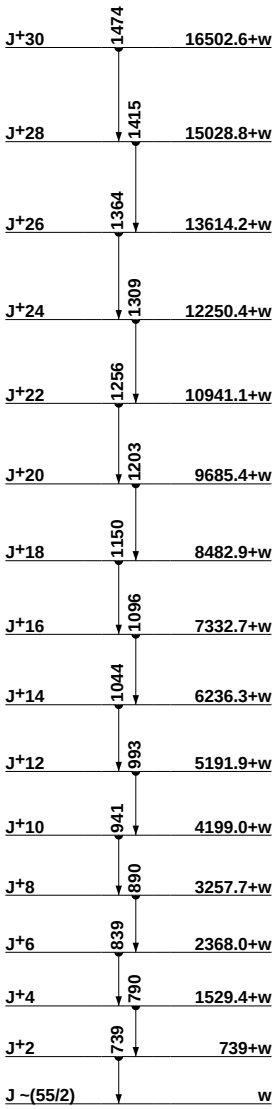
J **12797.6+s**, J+24 $\gamma_{11442+s}$***1356***1


J+36 20076.8+x
1535
J+34 18541.6+x
1483
J+32 17058.6+x
1432
J+30 15626.9+x
1379
J+28 14247.6+x
1328
J+26 12919.4+x
1278
J+24 11641.5+x
1228
J+22 10413.6+x
1178
J+20 9235.6+x
1130
J+18 8105.6+x
1082
J+16 7023.6+x
1034
J+14 5989.4+x
988
J+12 5001.2+x
943
J+10 4058.5+x
898
J+8 3161.0+x
854
J+6 2307.0+x
811
J+4 1495.8+x
769
J+2 726.5+x
727
J ~(57/2) x
SD-1 band
(89Fa02,93Cu06,94De33)
(95Kh06,97Ni01)
J+40 20861.9+y
1495
J+38 19366.9+y
1448
J+36 17918.6+y
1400
J+34 16519.1+y
1352
J+32 15167.1+y
1303
J+30 13863.9+y
1255
J+28 12609.1+y
1207
J+26 11402.2+y
1159
J+24 10243.6+y
1111
J+22 9133.1+y
1063
J+20 8070.1+y
1016
J+18 7054.4+y
968
J+16 6086.3+y
922
J+14 5164.7+y
875
J+12 4289.9+y
829
J+10 3461.2+y
783
J+8 2677.8+y
737
J+6 1940.4+y
692
J+4 1248.5+y
646
J+2 602.1+y
602
J ~(49/2) y
SD-2 band
(90By01,93Cu06)
(94De33,95Kh06)
J+36 19604.3+z
1505
J+34 18099.5+z
1457
J+32 16642.7+z
1408
J+30 15234.5+z
1358
J+28 13876.8+z
1310
J+26 12567.2+z
1259
J+24 11308.4+z
1210
J+22 10098.8+z
1161
J+20 8938.0+z
1111
J+18 7826.6+z
1062
J+16 6764.8+z
1013
J+14 5751.5+z
964
J+12 4787.9+z
916
J+10 3872.1+z
868
J+8 3004.3+z
821
J+6 2183.1+z
774
J+4 1409.2+z
728
J+2 681.5+z
682
J ~(55/2) z
SD-3 band
(94De33,95Kh06)
J+32 18056.9+u
1486
J+30 16571.4+u
1439
J+28 15132.1+u
1393
J+26 13739.2+u
1345
J+24 12394.4+u
1297
J+22 11097.9+u
1249
J+20 9849.4+u
1201
J+18 8648.3+u
1153
J+16 7495.8+u
1104
J+14 6392.0+u
1057
J+12 5335.4+u
1009
J+10 4326.0+u
962
J+8 3364.1+u
914
J+6 2450.2+u
865
J+4 1584.9+u
816
J+2 768.6+u
769
J ~(63/2) u
SD-4 band
(94De33,95Kh06)

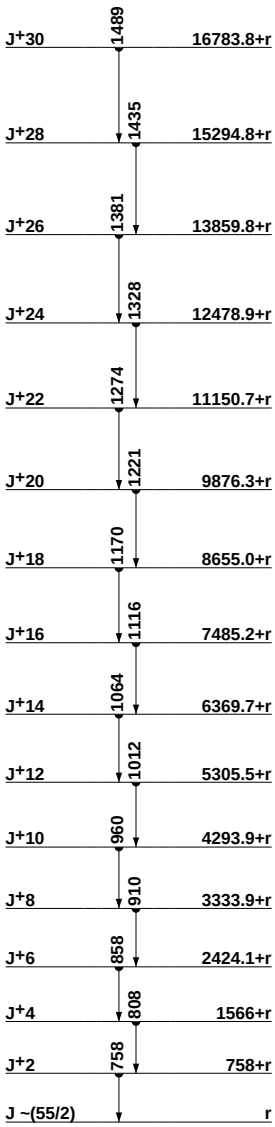
$^{151}_{65}Tb$



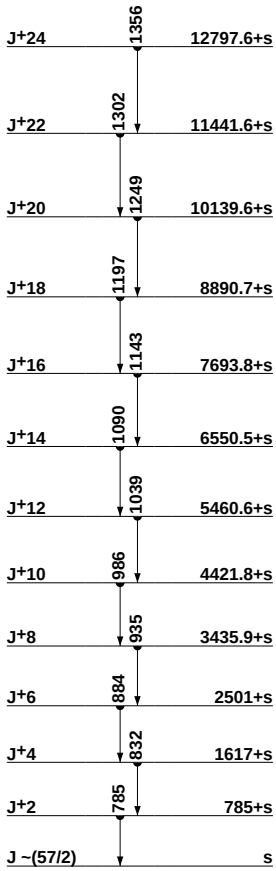
SD-5 band
(94De33,95Kh06)



SD-6 band
(94De33,95Kh06)



SD-7 band
(94De33,95Kh06)



SD-8 band
(94De33,95Kh06)

$^{151}_{65}$Tb