$^{200}_{82}$Pb (Continued)

6680.6+u *12*, *[H]* γ_{6399+u}***281.3*** *5* (†$_\gamma$100)

6799.8 *16*, (+), *[H]* γ_{6278}***521.6*** *10* (†$_\gamma$28 *12*) γ_{6161}***638.9*** *3* (†$_\gamma$100 *28*) γ_{6075}***724.3*** *4* (†$_\gamma$80 *20*) (E2) γ_{5801}***998.6*** *10* (†$_\gamma$15 *8*)

6802.5+y *9*, J+9, *[H]* γ_{6322+y}***480.6*** *3* (†$_\gamma$100) M1(+E2)

6897.9+z *5*, J+3, *[H]* γ_{6615+z}***283.3*** *3* (†$_\gamma$100) M1(+E2)

6948.1 *18*, (25$^-$), 58 *4* ns, *[H]* γ_{6800}***148.3*** *7* (†$_\gamma$100) (E1)

7015.2+u *13*, *[H]* γ_{6681+u}***334.6*** *5* (†$_\gamma$100)

7227.5+z *5*, J+4, *[H]* γ_{6898+z}***329.6*** *3* (†$_\gamma$100) M1(+E2)

7335.5+y *10*, J+10, *[H]* γ_{6803+y}***533.0*** *3* (†$_\gamma$100) M1(+E2) γ_{6322+y}≈***1014.2***

7396.6+u *14*, *[H]* γ_{7015+u}***381.4*** *5* (†$_\gamma$100)

7607.6+z *6*, J+5, *[H]* γ_{7228+z}***380.1*** *3* (†$_\gamma$100) M1(+E2)

7820.1+u *15*, *[H]* γ_{7397+u}***423.5*** *5* (†$_\gamma$100)

7917.6+y *11*, J+11, *[H]* γ_{7336+y}***582.1*** *5* (†$_\gamma$100) M1(+E2)

8046.4+z *8*, J+6, *[H]* γ_{7608+z}***438.8*** *5* (†$_\gamma$100) M1(+E2)

8170.3 *20*, *[H]* γ_{6948}***1222.2*** *10* (†$_\gamma$100)

8436.7 *18*, *[H]* γ_{6948}***1488.6*** *5* (†$_\gamma$100)

8550.0+y *14*, J+12, *[H]* γ_{7918+y}***632.4*** *10* (†$_\gamma$100) γ_{7336+y}≈***1214.3***

8630.3 *21*, *[H]* γ_{8437}***193.6*** *10* (†$_\gamma$100)

γ(^{200}*Tl*) from ^{200}Pb (21.5 h) EC decay **<** *for Iγ% multiply by 0.0333 8* **>**

32.74 *3* (†$_{\gamma+e}$36 *6*) M1, ***109.54*** *3* (†$_\gamma$14.5 *20*) M1, ***142.29*** *3* (†$_\gamma$95 *5*) M1, ***147.62*** *3* (†$_\gamma$1133 *30*) E2, ***155.29*** *10* (?) (†$_\gamma$1.4 *5*), ***161.35*** *4* (†$_\gamma$9.1 *10*) M1, ***193.39*** *10* (†$_\gamma$1.0 *4*), ***235.62*** *3* (†$_\gamma$129 *4*) M1, ***257.17*** *3* (†$_\gamma$134 *4*) M1+E2: δ=1.1 *1*, ***268.38*** *3* (†$_\gamma$119 *5*) M1, ***289.11*** *10* (†$_\gamma$32 *10*) M1, ***289.94*** *10* (†$_\gamma$52 *10*) M1, ***302.89*** *4* (†$_\gamma$5.0 *10*) M1, ***315.38*** *13* (†$_\gamma$6.7 *10*) (M1), ***348.23*** *8* (†$_\gamma$4.8 *10*), ***377.92*** *5* (†$_\gamma$0.8 *3*), ***450.53*** *5* (†$_\gamma$100) M1, ***457.70*** *10* (†$_\gamma$3.5 *6*), ***525.54*** *6* (†$_\gamma$12.6 *10*), ***605.44*** *6* (†$_\gamma$16.9 *12*) M1.

$^{200}_{83}$Bi

Δ: −20360 *90* **S$_n$**: 7540 *100* **S$_p$**: 2420 *110* **Q$_{EC}$**: 5890 *90* **Q$_\alpha$**: (4680)

Populating Reactions and Decay Modes

A ^{200}Po EC decay (78LiZM)

B ^{204}At α decay (9.2 m) (61La02, 63Ho18, 67Tr06, 68Go12, 71Ma78, 73Ry07, 74Ho27, 80Sc26, 81Va27, 93Wa04)

C ^{200}Bi IT decay (0.40 s)

D ^{186}W(^{19}F,5nγ) (94Da17)

E ^{193}Ir(^{12}C,5nγ) (72Ha73)

Levels and γ-ray branchings:

0, 7$^+$, 36.4 *5* m, *[ABCDE]*, %EC+%β$^+$=100

≈**100**, (2$^+$), 31 *2* m, *[A]*, %EC>90, %IT<10

53.30+x *9*, *[A]* γ_{100}***53.3*** *7* (†$_\gamma$100)

428.20 *10*, (10$^-$), 0.40 *5* s, *[C]*, %IT=100 γ_0***428.2*** *1* (†$_\gamma$100) (E3)

430.20+x *10*, *[AD]* γ_{100}***430.3*** *1* (†$_\gamma$100)

575.50+x *12*, *[A]* γ_{430+x}***145.4*** *1* (†$_\gamma$100 *5*) γ_{100}***575.1*** *2* (†$_\gamma$32 *5*)

671.00+x *8*, (1), *[A]* γ_{53+x}***617.7*** *1* (†$_\gamma$58 *3*) γ_{100}***671.0*** *1* (†$_\gamma$100 *5*)

695.11+x *8*, *[A]* γ_{100}***694.8*** *1* (†$_\gamma$100)

818.60+x *12*, *[A]* γ_{671+x}***147.6*** *1* (†$_\gamma$100 *5*) γ_{100}***818.8*** (†$_\gamma$13 *2*)

850.00+x *9*, (1), *[A]* γ_{695+x}***154.4*** *3* (?) (†$_\gamma$4.3 *4*) γ_{53+x}***796.7*** *1* (†$_\gamma$100 *5*) γ_{100}***850.0*** *1* (†$_\gamma$63 *3*)

876.08+x *11*, *[A]* γ_{671+x}***205.0*** *1* (†$_\gamma$83 *4*) γ_{100}***876.5*** *3* (†$_\gamma$100 *6*)

931.3+x *3*, *[A]* γ_{671+x}***260.3*** *3* (†$_\gamma$100)

999.01+x *10*, *[A]* γ_{671+x}***328.1*** *1* (†$_\gamma$100 *5*) γ_{53+x}***945.7*** *1* (†$_\gamma$42 *4*)

1127.00+x *16* (?), *[A]* γ_{576+x}***551.5*** *1* (†$_\gamma$100)

1253.00+x *14*, *[A]* γ_{819+x}***434.4*** *1* (†$_\gamma$100 *5*) γ_{671+x}***582.0*** *2* (†$_\gamma$5.9 *11*)

1271.52+x *11*, *[A]* γ_{999+x}***272.6*** *1* (†$_\gamma$65 *6*) γ_{876+x}***395.4*** *1* (†$_\gamma$71 *6*) γ_{100}***1271.3*** *2* (†$_\gamma$100 *6*)

1285.52+x *8*, *[A]* γ_{695+x}***590.2*** *1* (†$_\gamma$85 *3*) γ_{100}***1285.8*** *1* (†$_\gamma$100 *6*)

1352.10+x *19* (?), *[A]* γ_{1127+x}***225.1*** *1* (†$_\gamma$100)

1387.50+x *15*, *[A]* γ_{1286+x}***102.3*** *2* (†$_\gamma$26 *5*) γ_{695+x}***692.0*** *2* (†$_\gamma$100 *27*) γ_{100}***1387.8*** *4* (†$_\gamma$100)

1401.50+x *13* (?), *[A]* γ_{671+x}***730.5*** *1* (†$_\gamma$100)

1424.1+x *6*, *[A]* γ_{931+x}***492.8*** *5*

0+y, J, *[D]*

193.0+y *10*, J+1, *[D]* γ_{0+y}***193*** *1* (M1)

431.0+y *15*, J+2 γ_{193+y}***238*** *1* (M1)

720.0+y *18*, J+3 γ_{431+y}***289*** *1* (M1)

1056.0+y *20*, J+4 γ_{720+y}***336*** *1* (M1)

1432.0+y *23*, J+5 γ_{1056+y}***376*** *1* (M1)

1855.0+y *25*, J+6, *[D]* γ_{1432+y}***423*** *1* (M1)

0+z, J

199.0+z *5*, J+1 γ_{0+z}***199.0*** *5* (M1)

446.2+z *7*, J+2 γ_{199+z}***247.2*** *5* (M1)

740.7+z *9*, J+3 γ_{446+z}***294.5*** *5* (M1)

1083.8+z *10*, J+4 γ_{741+z}***343.1*** *5* (M1)

1475.2+z *12*, J+5 γ_{1084+z}***391.4*** *5* (M1)

1918.8+z *13*, J+6 γ_{1475+z}***443.6*** *5* (M1)

2417.8+z *16*, J+7 γ_{1919+z}***499.0*** (M1)

2970.7+z *17*, J+8 γ_{2418+z}***552.9*** *5* (M1)

3577.7+z *18*, J+9 γ_{2971+z}***607.0*** *5* (M1)

γ from ^{200}Bi (0.40 s) IT decay **<** *for Iγ% multiply by 1.0* **>**

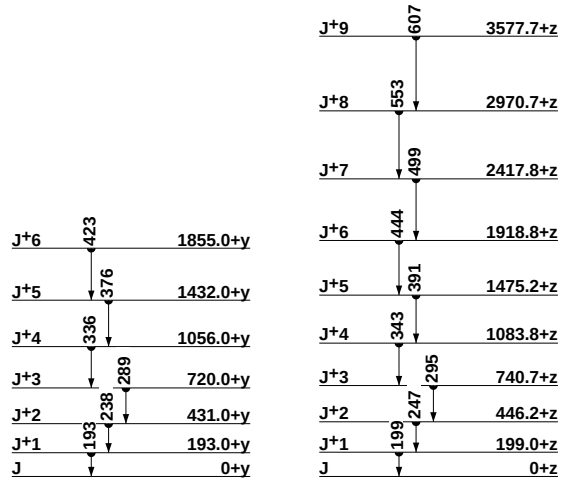
428.2 *1* (†$_\gamma$85) (E3).

γ(^{200}*Pb*) from ^{200}Bi (31 m) EC+β$^+$ decay **<** *for Iγ% multiply by 0.91 5* **>**

245.3 *1* (?) (†$_\gamma$5.1 *3*), ***273*** (†$_\gamma$<0.5), ***419.8*** *1* (†$_\gamma$23.7 *12*), ***462.4*** *1* (†$_\gamma$41.6 *22*), ***712.7*** *1* (†$_\gamma$1.8 *1*), ***1026.8*** (†$_\gamma$100 *5*), ***1625.5*** *9* E0, ***1739.5*** *2* (†$_\gamma$4.3 *2*), ***1867.0*** *9* E0.

γ(^{200}*Pb*) from ^{200}Bi (36.4 m) EC+β$^+$ decay **<** *for Iγ% multiply by 1.0* **>**

29.5 *10*, ***83.8*** *1* (?) (†$_\gamma$0.44 *22*) E2, ***98.1*** *3* (†$_\gamma$0.3 *1*) M1, ***103.25*** *17* (†$_\gamma$1.3 *2*) M1, ***114.40*** *16* (†$_\gamma$1.2 *2*) M1, ***201.11*** *17* (†$_\gamma$0.9 *2*) M1, ***245.15*** *13* (†$_\gamma$46 *3*) E2, ***273.39*** *20* (†$_\gamma$1.2 *2*) M1, ***294.4*** *2* (†$_\gamma$0.9 *3*) M1, ***303.41*** *18* (†$_\gamma$2.2 *2*) M1, ***344.6*** (†$_\gamma$≈0.5), ***348.33*** *17* (†$_\gamma$2.5 *3*) (M1+E2), ***353.6*** (u) (†$_\gamma$0.4), ***419.77*** *13* (†$_\gamma$91 *3*) E1, ***462.34*** *13* (†$_\gamma$98 *3*) E2, ***480.3*** *2* (†$_\gamma$2.3 *2*) M1, ***494.3*** *2* (u) (†$_\gamma$1.2) (M1), ***539.2*** *3* (u) (†$_\gamma$1.7 *2*), ***545.50*** *17* (†$_\gamma$4.5 *5*) M1, ***642.7*** *8* (†$_\gamma$0.8 *2*), ***647.8*** *4* (†$_\gamma$2.6 *2*) M1, ***665*** (†$_\gamma$<0.4), ***781.0*** *5* (u) (†$_\gamma$2.0 *3*), ***788.7*** *7* (†$_\gamma$1.0 *2*), ***811.0*** *7* (u) (†$_\gamma$0.7), ***836.9*** *5* (†$_\gamma$≈1.5), ***902.6*** (u) (†$_\gamma$1), ***931.6*** *5* (†$_\gamma$2.6 *4*), ***935.1*** *7* (†$_\gamma$1.4 *3*), ***979.8*** (u) (†$_\gamma$0.7), ***992.9*** (u) (†$_\gamma$2.9), ***1026.49*** *17* (†$_\gamma$100) E2, ***1101.4*** (u) (†$_\gamma$1.1).



$^{200}_{83}$Bi

$^{200}_{84}$Po

Δ: (−17010) **S$_n$**: (9800) **S$_p$**: (3410) **Q$_{EC}$**: (3350) **Q$_\alpha$**: 5981.5 *20*

Populating Reactions and Decay Modes

A ^{200}At EC decay (43 s) (86Ma31, 92Hu04)

B ^{200}At EC decay (47 s) (86Ma31, 92Hu04)

C ^{204}Rn α decay (67Va17, 71Ho01, 73Ry07, 93Wa04)

D ^{184}W(^{20}Ne,4nγ) (85We05, 86Ma31, 90Ma14)

E ^{194}Pt(^{12}C,6nγ) (85We05, 86Ma31, 90Ma14)

F ^{191}Ir(^{14}N,5nγ) (72Na02, 90Ma14)

Levels and γ-ray branchings:

0, 0$^+$, 11.5 *1* m, *[ACDEF]*, %EC+%β$^+$=88.9 *3*, %α=11.1 *3*

665.90 *10*, 2$^+$, *[ADEF]* γ_0***665.9*** *1* (†$_\gamma$100) E2

1277.00 *15*, 4$^+$, *[ADEF]* γ_{666}***611.1*** *1* (†$_\gamma$100) E2

1761.48 *17*, 6$^+$, *[ADEF]* γ_{1277}***484.5*** *1* (†$_\gamma$100) E2

1773.69 *21*, 8$^+$, 61 *3* ns, *[ADEF]*, μ=+7.44 *16*, Q=1.38 *7* γ_{1761}***12.2*** *2* (†$_\gamma$100)

1811.52 *17*, 5$^-$, <10 ns, *[ADE]* γ_{1277}***534.5*** *1* (†$_\gamma$100) E1

1842.00 *25*, (3,4)$^+$, *[A]* γ_{1277}***565.0*** *2* (†$_\gamma$100) M1 γ_{666}***1177.1*** *5*

2135.45 *18*, 7$^-$, <10 ns, *[ADE]* γ_{1812}***323.9*** *1* (†$_\gamma$45 *2*) E2 γ_{1774}***361.6*** *2* (†$_\gamma$13 *2*) E1 γ_{1761}***374.0*** *1* (†$_\gamma$100 *2*) E1

2236.1 *11* (?), (8$^-$), *[E]* γ_{2135}***100.7*** *10* (†$_\gamma$100) (M1)

2261.44 *22*, 9$^-$, <2 ns, *[ADE]* γ_{2135}***125.7*** *3* (†$_\gamma$17 *11*) E2 γ_{1774}***487.8*** *1* (†$_\gamma$100 *6*) E1