

188Tl
81Tl

188Tl (Continued)

$\gamma(^{188}\text{Tl})$ from ^{188}Tl (multiple parent) EC+ β^+ decay <for I γ % multiply by 0.881>

146.84(u) (\dagger 0.61), 153.94 (\dagger 1.11), 167.34 (\dagger 0.51), 203.22 (\dagger 1.31) M1(+E2): $\delta < 0.3$, 215.71 (\dagger 0.6010), 247.61 (\dagger 1.91) M1,E2, 269.41 (\dagger 1.41), 280.04 (\dagger 0.61), 281.51(u) (\dagger 0.808), 291.71 (\dagger 4.03) E2, 301.21 (\dagger 5.53) E2, 326.91 (\dagger 10.75) E2, 381.54 (\dagger 0.51), 385.81 (\dagger 3.73) E2(+M1): $\delta > 3$, 387.52(u) (\dagger 0.305), 387.52 (\dagger 0.305), 398.22 (\dagger 0.606), 412.91 (\dagger 1005) E2, 417.91(u) (\dagger 1.11) E2(+M1): $\delta > 2$, 424.11 (\dagger 3.93) E1, 443.11 (\dagger 1.92) E2(+M1): $\delta > 2$, 445.91(u) (\dagger 1.01), 450.31 (\dagger 0.505) M1+E2: $\delta = 0.73$, 452.71 (\dagger 2.82) E2(+M1): $\delta > 2$, 460.71 (\dagger 8.25) E2, 468.21 (\dagger 5.73) E0+M1+E2: $\delta = 2$ 1, 478.94(?) (\dagger 0.81), 499.54(?) (\dagger 1.11), 504.31 (\dagger 26.516) E2, 519.84 (\dagger 0.455), 535.01 (\dagger 1.31) M1,E2, 569.31 (\dagger 3.93) E2, 574.01 (\dagger 4.53) E2+M1: $\delta = 2.1_{-6}^{+18}$, ≈ 574 (?), 592.11 (\dagger 693) E2, 622.02 (\dagger 0.707) E1, 627.21 (\dagger 1.71) E2+M1: $\delta = 1.2_{-6}^{+31}$, 645.62 (\dagger 2.42) E2, 682.84(?) (\dagger 0.21), 692.32 (\dagger 2.52) E1, 700.12 (\dagger 3.33) E2(+M1): $\delta > 1.1$, 701.72 (\dagger 0.92), 711.04 (\dagger 0.21), 714.12(u) (\dagger 0.405) (E0+M1+E2), 745.72(u) (\dagger 0.506), 764.61(u) (\dagger 0.808), 769.81 (\dagger 2.02) M1(+E2): $\delta < 0.5$, 772.41 (\dagger 13.56) E2, 789.84 (\dagger 0.51), 795.21 (\dagger 11.36) E2, 804.64(u) (\dagger 0.61), 824.52 (\dagger 0.313) E0, 826.71 (\dagger 2.72) M1,E2, 835.14(u) (\dagger 0.81) E2(+M1): $\delta > 2$, 837.81 (\dagger 1.31) E1, 841.24 (\dagger 1.82), 873.91(u) (\dagger 0.61), 881.11 (\dagger 8.61) E2, 885.14 (\dagger 0.859) (M1), 904.81 (\dagger 12.37) E1, 913.21 (\dagger 0.31), 928.51 (\dagger 1.61), 948.01(u) (\dagger 0.51) M1,E2, 1009.84 (\dagger 0.21), 1042.01 (\dagger 3.52) M1,E2, 1057.81 (\dagger 1.11), 1071.44 (\dagger 0.31), 1170.54(?) (\dagger 2.43), 1239.24(u?) (\dagger 0.41), 1272.61(u) (\dagger 0.91), 1306.14(?) (\dagger 1.01), 1445.61(u) (\dagger 1.11), 1477.51 (\dagger 1.01).

Levels:

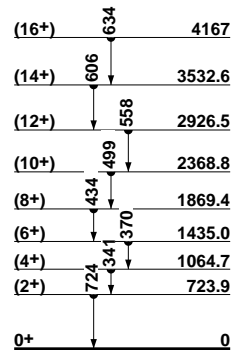
- 0, 0⁺, 24.2 10 s, [AD], %EC+% β^+ =78 %, % α =22 7
- 723.9, (2⁺), [D] γ_{724} 723.92 (\dagger 100)
- 1064.7, (4⁺), [D] γ_{724} 340.82 (\dagger 100)
- 1196.1, (4⁺), [D] γ_{724} 472.23
- 1435.0, (6⁺), [D] γ_{1065} 370.32 (\dagger 100)
- 1869.4, (8⁺), [D] γ_{1435} 434.42 (\dagger 100)
- 2368.8, (10⁺), [D] γ_{1869} 499.42 (\dagger 100)
- 2705, (9⁻), [D] γ_{2369} 336.23
- 2713, (11⁻), [D] γ_{2369} 344.33
- 2926.5, (12⁺), [D] γ_{2369} 557.72 (\dagger 100)
- 3532.6, (14⁺), [D] γ_{2927} 606.13 (\dagger 100)
- 4167, (16⁺), [D] γ_{3533} 634.1 (\dagger 100)

$\gamma(^{188}\text{Tl})$ from ^{188}Pb (24.2 s) EC+ β^+ decay <for I γ +e% multiply by 0.787>

185.05 ($\dagger_{\text{p+e}}^{63}$ 6), 758.25 ($\dagger_{\text{p+e}}^{37}$ 4).

α from ^{188}Pb (24.2 s) α decay <for I α % multiply by 0.227>

α_0 5980 10 (\dagger 100).



Yrast band

188Pb
82Pb

188Bi
83Bi

Δ : (-7300) S_n : (9300) Q_p : (500) Q_{EC} : (10400) Q_α : 7275 25

Populating Reactions and Decay Modes

$^{107}\text{Ag}(^{84}\text{Kr}, 3n)$ (80Sc09, 84ScZQ)

Levels:

0+x, 0.21 9 s, % α =?, %EC+% β^+ =?

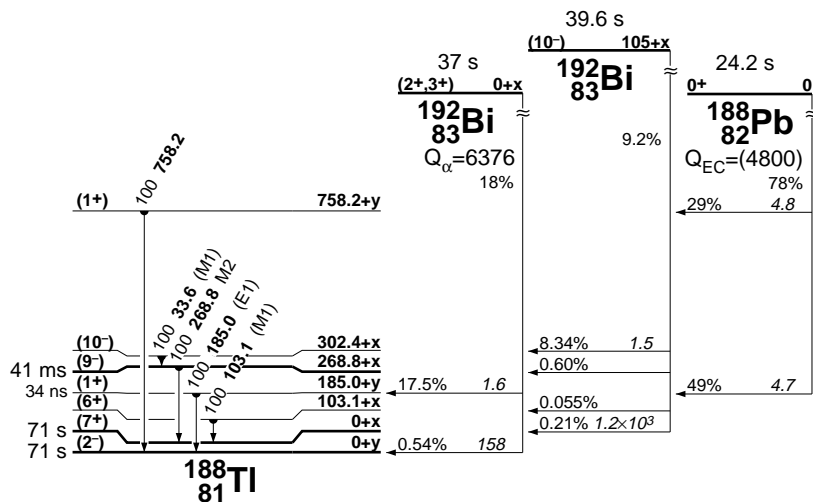
0+y, 44.3 ms, % α =?, %EC+% β^+ =?

α from ^{188}Bi (44 ms) α decay:

α_γ 7005 25, α_γ 7050.

α from ^{188}Bi (0.21 s) α decay:

α_γ 6820 20.



188Pb
82Pb

Δ : (-17640) S_n : (10700) S_p : (2700) Q_{EC} : (4800) Q_α : 6111 4

Populating Reactions and Decay Modes

- A ^{192}Po α decay (77De32, 81Le23)
- B ^{188}Bi EC decay (0.21 s)
- C ^{188}Bi EC decay (44 ms)
- D $^{156}\text{Gd}(^{36}\text{Ar}, 4n\gamma)$ (93He05)

