

1 Half-life, Q-value and Decay mode

| | | | | | |
|---------------|---|------|------|---------------|-----|
| $T_{1/2}$ | : | 1.55 | (8) | $\times 10^5$ | y |
| Q_{β^-} | : | 480 | (50) | | keV |
| Q_{EC} | : | 930 | (50) | | keV |
| Q_{α} | : | 5010 | (50) | | keV |
| EC | : | 87.8 | (6) | | % |
| β^- | : | 12.0 | (6) | | % |
| α | : | 0.2 | (6) | | % |

2 Electron Capture Transitions

| | Energy keV | Probability $\times 100$ | Nature | $\log ft$ | P_K | P_L | P_{M+} |
|------------------|---------------|-----------------------------|----------------------|-----------|-----------|-----------|-----------|
| $\epsilon_{0,6}$ | 82 (50) | ~ 0.096 | allowed | 14.6 | | 0.6 | 0.4 |
| $\epsilon_{0,3}$ | 620 (50) | 87.8 (43) | 1st forbidden | 14.1 | 0.726 (8) | 0.201 (5) | 0.073 (2) |
| $\epsilon_{0,2}$ | 781 (50) | < 4.4 | 1st forbidden unique | > 15.9 | 0.74 | 0.19 | 0.07 |

3 β^- Transitions

| | Energy keV | Probability $\times 100$ | Nature | $\log ft$ |
|-----------------|---------------|-----------------------------|----------------------|-----------|
| $\beta_{0,3}^-$ | 174 (50) | 11.8 (12) | 1st forbidden | 14.5 |
| $\beta_{0,2}^-$ | 333 (50) | < 1.6 | 1st forbidden unique | > 16 |

4 Electron Emissions

| | | Energy keV | Electrons per 100 disint. | Energy keV |
|---------------------|------|-----------------|------------------------------|---------------|
| eAL | (U) | 6.07 - 21.68 | 128.8 (19) | |
| eAK | (U) | | 2.1 (3) | |
| | KLL | 71.78 - 80.95 | } | |
| | KLX | 88.15 - 98.43 | } | |
| | KXY | 104.51 - 115.59 | } | |
| eAL | (Pu) | 6.19 - 23.10 | 10.7 (3) | |
| eAK | (Pu) | | 0.021 (4) | |
| | KLL | 75.26 - 85.36 | } | |
| | KLX | 92.61 - 103.73 | } | |
| | KXY | 109.93 - 121.78 | } | |
| ec _{1,0} L | (Pu) | 21.53 - 26.57 | 8.7 (5) | |
| ec _{1,0} M | (Pu) | 38.70 - 40.86 | 2.42 (14) | |
| ec _{2,1} L | (Pu) | 79.72 - 84.76 | 8.1 (6) | |
| ec _{2,1} M | (Pu) | 96.89 - 99.04 | 2.28 (18) | |
| ec _{3,2} K | (Pu) | 36.56 (2) | 0.73 (8) | |

| | | Energy keV | Electrons per 100 disint. | Energy keV |
|---------------------|------|------------------|------------------------------|---------------|
| ec _{3,2} L | (Pu) | 135.25 - 140.29 | 5.4 (6) | |
| ec _{3,2} M | (Pu) | 152.42 - 154.57 | 1.50 (16) | |
| ec _{1,0} L | (U) | 23.486 - 28.076 | 63.9 (19) | |
| ec _{1,0} M | (U) | 39.696 - 41.690 | 17.7 (5) | |
| ec _{2,1} L | (U) | 82.475 - 87.065 | 58.6 (16) | |
| ec _{2,1} M | (U) | 98.685 - 100.680 | 16.25 (47) | |
| ec _{3,2} K | (U) | 44.706 (3) | 6.6 (3) | |
| ec _{3,2} L | (U) | 138.55 - 143.14 | 36.0 (18) | |
| ec _{3,2} M | (U) | 154.76 - 156.76 | 10.0 (5) | |
| $\beta_{0,3}^-$ | max: | 174 (50) | 11.8 (12) | avg: 46 (15) |
| $\beta_{0,2}^-$ | max: | 333 (50) | 1.6 | avg: 92 (16) |

5 Photon Emissions

5.1 X-Ray Emissions

| | | Energy keV | Photons per 100 disint. | |
|--------------------|------|------------------|----------------------------|--------------|
| XL | (U) | 11.619 — 20.714 | 117.5 (30) | |
| XK α_2 | (U) | 94.666 | 20.2 (3) | } K α |
| XK α_1 | (U) | 98.44 | 32.4 (5) | } |
| XK β_3 | (U) | 110.421 | } | |
| XK β_1 | (U) | 111.298 | } | |
| XK β_5'' | (U) | 111.964 | } | |
| XK β_2 | (U) | 114.407 | } | |
| XK β_4 | (U) | 115.012 | } | |
| XKO _{2,3} | (U) | 115.377 | } | |
| XL | (Pu) | 12.1246 — 21.984 | 12.1 (4) | |
| XK α_2 | (Pu) | 99.525 | 0.212 (23) | } K α |
| XK α_1 | (Pu) | 103.734 | 0.33 (4) | } |
| XK β_3 | (Pu) | 116.244 | } | |
| XK β_1 | (Pu) | 117.228 | } | |
| XK β_5'' | (Pu) | 117.918 | } | |
| XK β_2 | (Pu) | 120.54 | } | |
| XK β_4 | (Pu) | 120.969 | } | |
| XKO _{2,3} | (Pu) | 121.543 | } | |

5.2 Gamma Transitions and Emissions

| | Energy keV | $P_{\gamma+ce}$ $\times 100$ | Multipolarity | α_T | P_γ $\times 100$ |
|---------------------------|---------------|---------------------------------|---------------|------------|----------------------------|
| $\gamma_{1,0}(\text{Pu})$ | 44.63 (10) | 11.9 (7) | E2 | 741 (15) | 0.0161 (9) |
| $\gamma_{1,0}(\text{U})$ | 45.244 (2) | 87.8 (6) | E2 | 589 (12) | 0.149 (3) |
| $\gamma_{5,4}(\text{U})$ | 56.6 (5) | ~ 0.08 | (E2) | 199 (10) | ~ 0.0004 |
| $\gamma_{2,1}(\text{Pu})$ | 102.82 (2) | 12.0 (6) | E2 | 13.87 (28) | 0.81 (6) |
| $\gamma_{6,5}(\text{U})$ | 104.1 (10) | ~ 0.096 | E2 | 11.1 (6) | ~ 0.008 |
| $\gamma_{2,1}(\text{U})$ | 104.234 (6) | 87.8 (6) | E2 | 10.99 (22) | 7.32 (13) |
| $\gamma_{3,2}(\text{Pu})$ | 158.35 (3) | 11.8 (12) | E2 | 2.14 (4) | 3.8 (4) |
| $\gamma_{3,2}(\text{U})$ | 160.307 (3) | 87.8 (43) | E2 | 1.76 (4) | 31.8 (15) |
| $\gamma_{4,2}(\text{U})$ | 538.1 (1) | ~ 0.0008 | E3 | 0.143 (3) | ~ 0.0007 |
| $\gamma_{5,2}(\text{U})$ | 594.5 (3) | ~ 0.008 | | | ~ 0.008 |
| $\gamma_{4,1}(\text{U})$ | 642.34 (5) | ~ 0.068 | E1+(M2+E3) | 0.15 (2) | ~ 0.059 |
| $\gamma_{4,0}(\text{U})$ | 687.60 (5) | ~ 0.021 | E1+(M2+E3) | 0.31 (2) | ~ 0.016 |

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