

Adopted Levels

| Type | Author | History Citation | Literature Cutoff Date |
|-----------------|-----------|--------------------|------------------------|
| Full Evaluation | T. Tamura | NDS 108,455 (2007) | 30-Sep-2006 |

$Q(\beta^-)=9.51\times 10^3$ 4; $S(n)=4.77\times 10^3$ 4; $S(p)=1.221\times 10^4$ 4; $Q(\alpha)=-8.64\times 10^3$ 5 2012Wa38

Note: Current evaluation has used the following Q record 9500 syst 4640 SY12260 syst-8520 syst 2003Au03.

$\Delta Q_{\beta^-}=210$ keV, $\Delta S(n)=250$ keV, $\Delta S(p)=540$ keV, $\Delta Q(\alpha)=540$ keV from atomic mass systematics (2003Au03).

1971Fo22: $^{235}\text{U}(n,f)$, on-line ms; $T_{1/2}=1.5$ s 5, γ spectra.

1978Sh03: $^{235}\text{U}(n,f)$, on-line ms; ^{122}Ag ; semi γ , semi-semi $\gamma\gamma$ -coin; deduced $T_{1/2}$ and established the decay scheme.

1983Re05: $^{235}\text{U}(n,f)$ on-line ms; measured $T_{1/2}$, β -delayed neutron spectra, deduced P_n .

1995Fe12: $\text{U}(p,f)$ $E(p)=1$ GeV, ISOLDE, on-line mass separation by laser ion source, from neutron counting, observed β -delayed neutron emitter.

2000Kr18: $\text{U}(p,f)$ $E(p)=1$ GeV, ISOLDE; measured γ spectra as a function of laser frequency, observing hyperfine splitted spectra associated with a low-spin and a high-spin isomers using isomer-specific laser ionization technic. Identified isomeric states $J=(1^-)$ and $J=(9^-)$, both β^- -delayed neutron and γ decay.

2006Mo07: Activity was produced by fragmentation of $^{136}\text{Xe}^{+50,51}$ ($E=121.8$ MeV/nucleon) on Be. Particle identification was performed. The products were passed to a mass spectrometer, position sensitive detector, stacked Si detectors and tof arrangement. β -delayed neutrons were detected within the neutron emission ratio observer; Implantation and decay events were time stamped and correlated. Deduced $T_{1/2}$ and P_n .

The order of 0.529-s level ($J=(3^+)$) and 0.55-s level ($J=(1^-)$) is not well-established.

 ^{122}Ag Levels

| E(level) | J^π | $T_{1/2}$ | Comments |
|----------|---------|------------|--|
| 0.0 | (3^+) | 0.529 s 13 | $\% \beta^- = 99.8$; $\% \beta^- n = 0.186$ 10 $\% \beta^- n$ from neutron counting (1983Re05). other: $\% \beta^- n \leq 1.3$ from βn coincidence (2006Mo07). E(level): Assumed as g.s. J^π : $\log ft \approx 5.4$ to 2^+ and 5.9 to (4^+) suggest (3^+) . $T_{1/2}$: weighted average of 0.520 s 14 (1995Fe12) and 0.57 s 3 (1983Re05); others: 0.48 s 8 from γ multiscaling (1978Sh03); 0.357 s 24 for a mixed source of gs and msec isomers, from β decay curve (2006Mo07). |
| 0.0+x | (1^-) | 0.55 s 5 | $\% \beta^- = ?$; $\% IT = ?$; $\% \beta^- n = ?$ J^π : from hyperfine splitting (2000Kr18). $T_{1/2}$: from beta-delayed neutron decay curve as a function of laser frequency (2000Kr18); other: 0.357 s 24 for a mixed source of gs and msec isomers (2006Mo07). |
| 80 50 | (9^-) | 0.20 s 5 | $\% \beta^- = ?$; $\% \beta^- n = ?$ E(level): Q_β systematics: $E(\text{high spin}) - E(\text{gs}) = 80$ 50 in NUBASE (2003Au02). J^π : from hyperfine splitting (2000Kr18). $T_{1/2}$: from beta-delayed neutron decay curve as a function of laser frequency (2000Kr18); other: 0.357 s 24 for a mixed source of gs and msec isomers (2006Mo07). |