

Adopted Levels

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 122, 205 (2014)	1-Feb-2014

$Q(\beta^-) = -3384$  SY;  $S(n) = 7906$  SY;  $S(p) = 3013$  53;  $Q(\alpha) = 6576$  13    [2012Wa38](#)

[2012Wa38](#):  $\Delta Q(\beta^-) = 208$  syst;  $\Delta S(n) = 167$  syst.

[1996KoZZ](#), [1996Gu11](#), [1997Sh21](#), [1999Ya13](#): Activity produced by  $^{238}\text{Pu}(p,4n)$ ,  $E = 35$  MeV. Chemically separated and assigned to  $^{235}\text{Am}$  on the basis of detected Pu K x ray, as well as Np K x ray and a 49.1-keV  $\gamma$  ray from  $^{235}\text{Pu}$  (daughter nucleus of  $^{235}\text{Am}$ ) electron-capture decay. Activity was transported using a He-jet recoil technique. Measured  $\gamma$  rays,  $X\gamma$  coin. Deduced  $T_{1/2}$ .

[1999SaZT](#): Activity produced by  $^{235}\text{U}(^6\text{Li},6n)$ ,  $E = 60$  MeV. Mass-separated and assigned to  $^{235}\text{Am}$  on the basis of detected Pu K x ray. Measured  $\gamma$  rays in singles,  $X\gamma$  coin, and  $\gamma\gamma$  coin experiments. No  $\gamma$  rays coincident with Pu K x ray were detected. Deduced  $T_{1/2}$ .

[2000SaZO](#): Activity produced by  $^{233}\text{U}(^6\text{Li},4n)$ ,  $E = 45.5$  MeV. Mass-separated and assigned to  $^{235}\text{Am}$ . Measured  $\gamma$  rays, Pu K x ray, Np K x ray,  $\alpha$  particles ( $E\alpha$ ). Detectors: Si-pin photodiodes for  $\alpha$  particles; High-purity Ge for  $\gamma$  rays. Deduced half-life,  $I\alpha/\varepsilon$  branching ratio.

[2004As12](#), [2004Sa05](#): Activity produced by  $^{233}\text{U}(^6\text{Li},4n)$ ,  $E = 34-42$  MeV. Separated ions implanted in a Si  $\alpha$  detector, two Ge detectors used for  $\gamma$ -rays. Measured:  $\alpha$ ,  $\gamma$ ,  $\alpha\gamma$ ,  $\gamma\gamma$ , Np K x ray, and Pu K x ray, L x ray, studied  $^{235}\text{Am}$   $\varepsilon$  and  $\alpha$  decay.

 $^{235}\text{Am}$  Levels

E(level)	$J^\pi$	$T_{1/2}$	Comments
0.0	$5/2^-$	10.3 min 6	$\% \varepsilon = 99.60$ 5; $\% \alpha = 0.40$ 5 $T_{1/2}$ : from $\alpha(t)$ <a href="#">2004Sa05</a> , <a href="#">2000SaZO</a> . Other: 9.3 min 7 ( <a href="#">1999SaZT</a> ), 15 min 5 ( <a href="#">1996KoZZ</a> , <a href="#">1996Gu11</a> , <a href="#">1997Sh21</a> , <a href="#">1999Ya13</a> ). $J^\pi$ : Configuration = $(\pi 5/2[523])$ ( <a href="#">2004As12</a> ). $\% \alpha$ : from Pu K x ray and $\alpha$ particles measured simultaneously in a known geometry using calibrated detectors ( <a href="#">2004Sa05</a> , <a href="#">2000SaZO</a> ).