

Adopted Levels

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh, Sukhjeet Singh		ENSDF	08-Mar-2022

$Q(\beta^-) = -6290$ 30; $S(n) = 8370$ 60; $S(p) = 3880$ 80; $Q(\alpha) = 8628$ 7 [2021Wa16](#)

$S(2n) = 14670$ 50, $S(2p) = 6038$ 18, $Q(\varepsilon) = 1880$ 17 ([2021Wa16](#)).

[1991An10](#) (also [1991An13](#), [1994Ye08](#)): ^{224}U produced and identified in $^{208}\text{Pb}(^{20}\text{Ne}, 4n)$ reaction at $E = 100\text{--}125$ MeV, in-flight kinematic separation, and genetic relationships. Measured $E\alpha$, $T_{1/2}$. In [1994Ye08](#), $^{197}\text{Au} + ^{27}\text{Al}$ reaction was used to produce ^{224}U .

[Additional information 1.](#)

[1992To02](#): ^{224}U produced in $^{209}\text{Bi}(^{19}\text{F}, 4n)$ at $E = 102\text{--}115$ MeV, velocity filter; measured $E\alpha$, $T_{1/2}$.

Theoretical calculations: 64 references extracted from the NSR database are listed in document records.

 ^{224}U LevelsCross Reference (XREF) Flags

A ^{228}Pu α decay (1.1 s)

<u>E(level)</u>	<u>J^π</u>	<u>$T_{1/2}$</u>	<u>XREF</u>	<u>Comments</u>
0	0^+	396 μs 17	A	$\% \alpha = 100$ $T_{1/2}$: from 2014Lo10 (evaporation residue – 8479 α correlated decay curve; also 561 μs 132 from (evaporation residue-8095 α correlated events). Other measurements: 0.7 ms +5–2 (1991An10 , also 1991An13 , 1994Ye08); 1.0 ms 4 (1992To02). ε, β^+ decay mode has not been observed. Theoretical calculations predict $\% \varepsilon + \% \beta^+ < 0.00012$ (gross β -decay theory, 1973Ta30), $< 0.015\%$ (QRPA, 2019Mo01). Measured $E\alpha = 8470$ 15 (1991An10), 8458 20 (1992To02).