

Adopted Levels

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 114, 1041 (2013)	1-Nov-2011

$Q(\beta^-)=-3140\ 23$; $S(n)=5989\ 18$; $S(p)=3936\ SY$; $Q(\alpha)=8428\ 3$ [2012Wa38](#)

Estimated $\Delta S(p)=101$ ([2012Wa38](#)).

[Additional information 1.](#)

Calculations, compilations:

α decay: [1993Bu09](#), [1992Bu03](#).

g.s. properties: [1997Mo25](#), [1995Mo29](#).

half-life, $Q(\alpha)$: [2010Si27](#), [2009Do22](#), [2009Sa25](#), [2008Do12](#), [2008Ro06](#), [2006Pa12](#), [2003Re32](#).

$^{208}\text{Pb}({}^{48}\text{Ca},\text{N})$ reaction, calculated σ : [2010Fe06](#), [2010Li32](#), [2008Za07](#), [2007Fe17](#), [2007Og05](#), [2006Fe05](#), [2006KaZT](#), [2006Si07](#),

[2006SiZY](#), [2005Zu02](#), [2004Ch31](#), [2004Ch67](#), [2003Ab34](#), [2003Sw01](#), [2001Sm06](#), [2001Za10](#), [1999Ch42](#), [1999ChZT](#), [1999Sm02](#).

$^{238}\text{U}({}^{22}\text{Ne},5\text{n})$ reaction, measured $T_{1/2}$ ([2008HaZU](#)).

Heavy ion emission: [1986Po15](#), [1985Po11](#).

Single-particle Nilsson levels: [2006Pa12](#), [2011Ad15](#), [2005Pa73](#), and [1994Cw02](#).

Rotational bands: [2003Be41](#).

[1994Cw02](#) have calculated the following single-particle level sequence: g.s. $1/2[620]$, $0.10\ \text{MeV}$, $3/2[622]$; $0.28\ \text{MeV}$, $11/2[725]$; $0.29\ \text{MeV}$, $7/2[613]$; $0.44\ \text{MeV}$, $9/2[734]$; $0.74\ \text{MeV}$, $9/2[615]$.

 ^{255}No LevelsCross Reference (XREF) Flags

A ^{259}Rf α decay
 B $^{208}\text{Pb}({}^{48}\text{Ca},\text{N})$

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
0.0	(1/2 ⁺)	3.52 min 21	B	% $\alpha=30\ 5$; % $\varepsilon+%\beta^+=70\ 5$ (2011As03) J^π : From α -decay hindrance factor systematics and analogy with N=153 nuclei (^{249}Cm , ^{251}Cf) suggests g.s. configuration=($\nu\ 1/2[620]$). $T_{1/2}$: Weighted average of 3.52 min 32, from α fine structure measurement, and 3.52 min 21, from $\alpha\gamma$ coincidence measurements (2011As03). Other values: 3.1 min 3 (1967Gh01), 3.0 min 2 (1968Fl08 , 1967Fl05), 3.3 min 2 (1970Es02). Others: 2006Gr24 , 2004Mo27 , 2004Mo40 . % α : From 2011As03 . % $\alpha=61\ 3$ (1976SiZS) is based on % $\varepsilon+%\beta^+=39\ 3$ (1976SiZS), possibly affected by an impurity of ^{254}No in their source. Calculated $T_{1/2}(\text{SF})\approx 3$ min (1985Lo17).
0+x 101+x 30	A		A	E(level): x=121 74 from ^{259}Rf α decay. E(level): ΔE given does not include ΔE in x.

[†] From ^{259}Rf α decay.