

Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 156, 70 (2019)	31-Jan-2019

$Q(\beta^-) = -880$ SY; $S(n) = 5820$ SY; $S(p) = 3240$ SY; $Q(\alpha) = 8210$ SY [2017Wa10](#)

Estimated uncertainties ([2017Wa10](#)): $\Delta Q(\beta^-) = 370$, $\Delta S(n) = 360$, $\Delta S(p) = 460$, $\Delta Q(\alpha) = 200$.

$S(2n) = 12770$ 370, $S(2p) = 8220$ 520 (syst, [2017Wa10](#)).

[2007Og02](#), [2013Og01](#) (also [2011Og07](#), [2012OgZZ](#), [2007Og05](#), [2007Og01](#)): ²⁶⁶Db produced in the α decay chain: ²⁸²Nh \rightarrow ²⁷⁸Rg \rightarrow ²⁷⁴Mt \rightarrow ²⁷⁰Bh \rightarrow ²⁶⁶Db, where ²⁸²Nh was formed in ²³⁷Np(⁴⁸Ca,3n), E=244 MeV at FLNR-JINR-Dubna, in collaboration with LLNL. See ²⁸²Nh Adopted Levels for details of two decay chains observed.

For theoretical studies, consult Nuclear Science References (NSR) database at NNDC, BNL for 37 primary references dealing with the half-lives and other aspects of nuclear structure in this mass region.

²⁶⁶Db Levels

Cross Reference (XREF) Flags

A ²⁷⁰Bh α decay (1.0 min)

E(level)	T _{1/2}	XREF	Comments
0	0.4 h +17-2	A	<p>%SF\approx100; %α=?; %ϵ=?</p> <p>The SF decay mode was observed, but α decay and/or $\epsilon + \beta^+$ modes are not excluded (2017Og01).</p> <p>J^π: 1⁻, 2⁻ from $\Omega(\text{proton}) = 1/2^-$ and $\Omega(\text{neutron}) = 3/2^+$ (1997Mo25, theory).</p> <p>T_{1/2}: 22 min +105-10 (2017Og01 and 2015Og05 reviews) based on data for one decay chain observed in 2007Og02.</p>