

Adopted Levels

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

$Q(\beta^-)=-890$  SY;  $S(n)=5320$  SY;  $S(p)=2830$  SY;  $Q(\alpha)=9060$  50    [2017Wa10](#)

Estimated uncertainties ([2017Wa10](#)):  $\Delta Q(\beta^-)=380$ ,  $\Delta S(n)=470$ ,  $\Delta S(p)=460$ .

$S(2n)=12720$  480,  $S(2p)=7410$  600 (syst, [2017Wa10](#)).

[2007Og02](#) (also [2013Og01](#)):  $^{270}\text{Bh}$  produced as  $\alpha$  great-granddaughter of  $^{282}\text{Nh}$ , which was formed in  $^{237}\text{Np}(^{48}\text{Ca},3n),E=244$  MeV reaction at FLNR-JINR-Dubna, in collaboration with LLNL. See  $^{282}\text{Nh}$  Adopted Levels for experimental details of two decay chains observed. See also related references: [2012OgZZ](#), [2011Og07](#), [2009Og07](#) and [2007Og05](#).

For theoretical studies, consult Nuclear Science References (NSR) database at NNDC, BNL for 35 primary references dealing with the half-lives and other aspects of nuclear structure in this mass region.

 $^{270}\text{Bh}$  LevelsCross Reference (XREF) Flags

[A](#)     $^{274}\text{Mt}$   $\alpha$  decay (0.44 s)

E(level)	T <sub>1/2</sub>	XREF	Comments
0	1.0 min +49–5	<a href="#">A</a>	% $\alpha\approx100$ ; %SF=? % $\alpha$ : only $\alpha$ decay observed. E(level): the observed $\alpha$ activity is assumed to correspond to the ground state of $^{270}\text{Bh}$ . $J^\pi$ : 6 <sup>+</sup> ,7 <sup>+</sup> from $\Omega(\text{proton})=1/2^-$ , $\Omega(\text{neutron})=13/2^-$ ( <a href="#">1997Mo25</a> ,theory). T <sub>1/2</sub> : 61 s +292–28 ( <a href="#">2017Og01</a> and <a href="#">2015Og05</a> reviews) from one event in <a href="#">2007Og02</a> . E $\alpha$ =8.93 MeV 8 from $^{270}\text{Bh}$ $\alpha$ decay ( <a href="#">2017Og01</a> and <a href="#">2015Og05</a> reviews) based on data in <a href="#">2007Og02</a> .