

Adopted Levels

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	G. C. Sheu, J. H. Kelley		ENSDF	25-Oct-2018

$Q(\beta^-)=2.736\times 10^4$ 53; $S(n)=0.9\times 10^2$ 56 [2017Wa10](#)

The ^{19}B nucleus is particle stable. Its mass excess is 59.77 MeV 53 ([2017Wa10](#)).

Theory:

Predictions and calculations for ground-state and excited-state parameters of ^{19}B : [1985Po10](#), [1989De52](#), [1990Lo11](#), [1992Wa22](#),

[1995Ho02](#), [1995Ho13](#), [1995Ka23](#), [1997Ba54](#), [1997Ho04](#), [2001Ka66](#), [2001Wa38](#), [2004An21](#), [2004La24](#), [2006Ko02](#), [2012Yu07](#).

Discussions of cluster structure and possible neutron-halo structure of ^{19}B : [1994Fe01](#), [1995Fe08](#), [1995Gu07](#), [1999Ta09](#), [2000Gu04](#),

[2000Ma28](#), [2001Mb02](#), [2001Ta04](#), [2002Gu10](#), [2002Ho05](#), [2005Ar12](#), [2005Ka02](#), [2005Li22](#), [2006Li31](#), [2007Fr22](#), [2010Gu15](#),

[2010Ma38](#), [2012Fo18](#), [2015Ha20](#), [2015Ka02](#), [2016Xi04](#), [2017Ah08](#).

 ^{19}B LevelsCross Reference (XREF) Flags

A	$^9\text{Be}(^{40}\text{Ar}, ^{19}\text{B})$	E	$^{181}\text{Ta}(^{40}\text{Ar}, ^{19}\text{B})$
B	$^9\text{Be}(^{56}\text{Fe}, ^{19}\text{B})$	F	$\text{Ta}(^{48}\text{Ca}, ^{19}\text{B})$
C	$\text{C}(^{19}\text{B}, \text{X})$	G	$\text{U}(\text{P}, ^{19}\text{B})$
D	$^{181}\text{Ta}(^{36}\text{S}, ^{19}\text{B})$		

E(level)	J^π	$T_{1/2}$	XREF	Comments
0	$3/2^-$	2.92 ms 13	ABCDEF	$\% \beta^- = 100$; $\% \beta^- n = 71.8 + 83 - 91$; $\% \beta^- 2n = 16.0 + 56 - 48$; $\% \beta^- 3n < 9.1$ $\% \beta^- n$, $\% \beta^- 2n$ and $\% \beta^- 3n$: From (2003Yo02); see also $P_n = 1 \times P_{1n} + 2 \times P_{2n} + \dots = (125 - 32)\% > 100\%$ (1998Yo06), which implies the existence of significant multineutron emissions in the β -delayed neutron decay. J^π : From systematics, see (2001Ka66 , 2005Ka02). $T_{1/2}$: From (2003Yo02) which includes re-analysis of (1998Yo06 : 3.3 ms 2) data. See also $T_{1/2} = 4.5$ ms 15 (1999Re16).