^{185}Bi p decay   2004An07,2001Po05,1996Da06

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 111,275 (2010)	1-Oct-2009

Parent: ^{185}Bi: E=0+x; J^π=1/2$^+$; T$_{1/2}$=49 μs 7; Q(p)=1544 SY; %p decay=89.5 19

^{185}Bi-%p decay: From simultaneous detection of p and α decay branches; weighted average of %p=85 6 (2001Po05) and 90 2 (2004An07).

Sources produced by ^{95}Mo(^{92}Mo,pn) At E=410 MeV (1996Da06), E=420 MeV (2001Po05) or by ^{93}Nb(^{95}Mo,3n) E=380-480 MeV (2004An07).

^{185}Bi parent S(p)=−1607 16 based on measured E(p)=1598 16 (cf. S(p)=−1544 syst (uncertainty of 52 keV) In 2009AuZZ) if the 1/2$^+$ state of ^{185}Bi is the ground state. In ^{187}Bi, the h$_{9/2}$ orbital lies about 100 keV below the s$_{1/2}$ orbital; however, the order of these orbitals In ^{185}Bi has not been established (see 2001Po05 for further discussion).

T$_{1/2}$(185BI)=49 μs 7 is weighted average of 50 μs 8 from 2001Po05 and 44 μs 16 from 1996Da06.

J^π(^{185}Bi)=(1/2$^+$) based on L=0 p emission to 0$^+$ ^{184}Pb ground state.

^{184}Pb Levels

E(level)	J^π	L	Comments
0	0$^+$	0	L: s$_{1/2}$ orbital p emission from ^{185}Bi parent to 0$^+$ ^{184}Pb based on comparison of measured and calculated p partial half-lives.

Protons (^{184}Pb)

E(p)	E(^{184}Pb)	Comments
1598 16	0	E(p): weighted average of 1585 9 (1996Da06) and 1618 11 (2001Po05). correlated with known α from ^{184}Pb(g.s.) decay (2001Po05).