^{8}B β^+ decay 1989Ba31,1969Ba43

History

Type	Author	Citation	Literature Cutoff Date
Update	J. H. Kelley, J. L. Godwin, C. G. Sheu	ENSDF	31-Mar-2004

Parent: ^{8}B: E=0.0; $J^{\pi}=2^{+}$; $T_{1/2}$=770 ms *3*; Q(β^+)=17979.8 *10*; %β^+ decay=100

1986Wa01: ^{8}B(β^+), analyzed β-delayed breakup α-spectra. Deduced intruder states role.

1989Ba31: ^{8}B(β^+); calculated α-spectra. ^{8}Be deduce possible broad intruder state. Many-level R-matrix fit.

1993Ch06: ^{8}B(β^+), analyzed Gamow-Teller β-decay data. Deduced log *ft*, β-decay matrix elements.

2000Or04: ^{8}B(EC), measured β-delayed α spectrum. Deduced neutrino spectrum. Implications for solar neutrino measurements discussed.

2002Bh03: ^{8}B(EC), analyzed β-delayed E_{α}.

2003Wi11: ^{8}B(β^+), (EC), measured β-delayed E_{α}.

2003Wi16: ^{8}B($\beta^+\alpha$), measured β-delayed E_{α}, I_{α}, β-α-coin. Deduced neutrino spectrum.

^{8}Be Levels

E(level)	J^{π}[†]	$T_{1/2}$[†]	Comments
0.0	0^{+}	5.57 eV *25*	
3030 *10*	2^{+}	1513 keV *15*	%α=100
16626 *3*	2^{+}		

[†] From Adopted Levels.

ε,β^+ radiations

E(decay)	E(level)	Iβ^+[†]	Iε[†]	Log *ft*	I($\varepsilon+\beta^+$)[†]	Comments
(1353.8 *33*)	16626	<12	<0.45	>3.3	<12	av Eβ=123.9 *13*; εK=0.0356 *11*; εL=0.00149 *5* log *ft* from (1969Ba43).
(14950 *10*)	3030	>88		<5.6	>88	av Eβ=6732 *5* log *ft*=5.77 from (1989Ba31). Because broad levels of ^{8}Be participate In the β^-decay, it is necessary to make detailed computations to determine the log *ft* value.

[†] Absolute intensity per 100 decays.