^{9}Be(^{3}He,p)   1959Hi69,1966Br18,1982Zw02

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, C. G. Sheu	NP A880,88 (2012)	1-Jan-2011

1959Hi69: ^{9}Be(^{3}He,p).

1965Ol03: ^{9}Be(^{3}He,p γ); deduced nuclear properties.

1966Br18: ^{11}B, measured not abstracted; deduced nuclear properties.

1967Co03: ^{9}Be(^{3}He,p) E=1-3 MeV, measured σ(E$_p$,θ). ^{11}B deduced levels J, π, L.

1968Ea03: ^{9}Be(^{3}He,pγ) E=3, 4 MeV, measured σ(E$_p$,E$_\gamma$,θ(pγ)). ^{11}B deduced levels, J, γ-width.

1973Su07: ^{9}Be(^{3}He,pγ) E=0.5-1.1 MeV, measured σ(E).

1977Ir01: ^{9}Be(^{3}He,p) E=14 MeV, measured σ(θ), proton polarization.

1981Sl03: ^{9}Be(^{3}He,p) E=14 MeV, measured p(θ). Deduced time-reversal invariance.

1982Ha06: ^{9}Be(^{3}He,p) E=13.6 MeV, measured p(θ). Deduced no time reversal invariance violation.

1982PoZZ,1983Po13, 1984Po02: ^{9}Be(^{3}He,p) E=13-14.2 MeV, measured σ(E$_p$), σ(θ), σ(θ) vs E.

1982Zw02: ^{9}Be(^{3}He,p) E=38 MeV, measured σ(E$_p$,θ). ^{11}B deduced levels, widths, isospin purity, L, normalization factors.
    DWBA analysis.

1983Le17: ^{9}Be(pol. ^{3}He,p) E=33 MeV and E=14 MeV, measured σ(θ), A(θ). Cluster transfer DWBA analysis.

1983Ri01: ^{9}Be(^{3}He,p) E=14 MeV, measured polarization.

1983Ro22: ^{9}Be(pol. ^{3}He,p) E=14 MeV, measured analyzing power vs θ. Deduced reaction mechanism, time reversal invariance
    validity.

1984Tr03: ^{9}Be(^{3}He,p) E=13.6 MeV, measured proton polarization vs θ. Deduced no evidence for time reversal invariance violation.

It: from (1963Ol03) analysis of ^{9}Be(^{3}He,p γ) and ^{10}B(d,p γ).

^{11}B Levels

E(level)	T$_{1/2}$	L	Comments
0		0	E(level): from (1966Br18); also see (1959Hi69). L: see 1960 Hinds in (1975Aj01).
2124.3 *9*		0	E(level): from (1966Br18); also see (1959Hi69). L: see 1960 Hinds in (1975Aj01).
4443.4 *18*		0	E(level): from (1966Br18); also see (1959Hi69). L: see 1960 Hinds in (1975Aj01).
5018.7 *23*		0	E(level): from (1966Br18); also see (1959Hi69). L: see 1960 Hinds in (1975Aj01).
6741.1 *30*			E(level): from (1966Br18); also see (1959Hi69). L: see 1960 Hinds in (1975Aj01).
6790.9 *31*		1	E(level): from (1966Br18); also see (1959Hi69). L: see 1960 Hinds in (1975Aj01).
7285 *10*			E(level): from (1959Hi69). L: see 1960 Hinds in (1975Aj01).
7975 *10*			E(level): from (1959Hi69). L: see 1960 Hinds in (1975Aj01).
8553 *10*		0	E(level): from (1959Hi69). L: see 1960 Hinds in (1975Aj01).
8917 *8*		0+2	E(level): from 8909 keV *10* (1959Hi69) and 8934 keV *15* (1982Zw02). L: see 1960 Hinds in (1975Aj01) and (1982Zw02).
9177 *8*		(1)+3	E(level): from 9175 keV *10* (1959Hi69) and 9183 keV *15* (1982Zw02). L: see (1982Zw02).
9264 *8*	10 keV *10*	1+3	E(level): from 9264 keV *10* (1959Hi69) and 9265 keV *15* (1982Zw02). L: see (1982Zw02).
9877 *12*	104 keV *15*	1	E(level): from 9860 keV *20* (1959Hi69) and 9887 keV *15* (1982Zw02). L: see (1982Zw02).
10265 *25*	168 keV *25*	2	E(level): L: from (1982Zw02).
10337 *20*	123 keV *20*	0+2	E(level): L: from (1982Zw02).
10580 *20*	122 keV *20*	1+3	E(level): L: from (1982Zw02).
11254 *20*	110 keV *20*	3	E(level): L: from (1982Zw02).
11437 *20*	103 keV *20*	(0+2)	E(level): L: from (1982Zw02).
11588 *30*	180 keV *30*	1+3	E(level): L: from (1982Zw02).
11889 *20*	204 keV *20*	0+2	E(level): L: from (1982Zw02).
12563 *20*	202 keV *25*	1	T=3/2 E(level): L: from (1982Zw02).
12920 *20*	155 keV *25*	2	T=3/2 E(level): L: from (1982Zw02).
13137 *40*	426 keV *40*	1+3	E(level): L: from (1982Zw02).
14.40×10^3	261 keV *25*	1+3	T=1/2 & 3/2.

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^{11}B Levels (continued)

E(level)	T$_{1/2}$	L	Comments
			E(level): L: from (1982Zw02).
14565 *15*	<30 keV	(1)	E(level): L: from (1982Zw02).
16437 *20*	<30 keV		T=3/2
			E(level): L: from (1982Zw02).
17.69×10^3	91 keV *25*	(0+2)	T=3/2
			E(level): L: from (1982Zw02).
18.0×10^3 *1*	0.87 MeV *10*	(1+3)	T=3/2
			E(level): L: from (1982Zw02).
19146 *30*	115 keV *25*	3	T=3/2
			E(level): L: from (1982Zw02).
21.27×10^3 *5*	300 keV *30*	(1+3)	T=3/2
			E(level): L: from (1982Zw02).

$\gamma(^{11}$B)

E$_\gamma$	I$_\gamma$	E$_i$(level)	E$_f$	E$_\gamma$	I$_\gamma$	E$_i$(level)	E$_f$	E$_\gamma$	I$_\gamma$	E$_i$(level)	E$_f$
1722	<1	6741.1	5018.7	3532	<1	7975	4443.4	5853	53 *2*	7975	2124.3
1771	<8	6790.9	5018.7	3539	9 *1*	8553	5018.7	6435	30 *2*	8553	2124.3
2178	<1	8917	6741.1	3899	<1	8917	5018.7	6740	72 *2*	6741.1	0
2265	7.5 *10*	7285	5018.7	4114	5 *1*	8553	4443.4	6790	65 *8*	6790.9	0
2297	28 *2*	6741.1	4443.4	4445	100	4443.4	0	6793	<1	8917	2124.3
2320	<1	4443.4	2124.3	4474	5.0 *5*	8917	4443.4	7286	87 *2*	7285	0
2347	<8	6790.9	4443.4	4616	<3	6741.1	2124.3	7978	47 *1*	7975	0
2840	5.5 *10*	7285	4443.4	4666	35 *8*	6790.9	2124.3	8556	56 *2*	8553	0
2895	16 *2*	5018.7	2124.3	5020	84 *2*	5018.7	0	8916	95 *1*	8917	0
2958	<1	7975	5018.7	5160	<1	7285	2124.3				

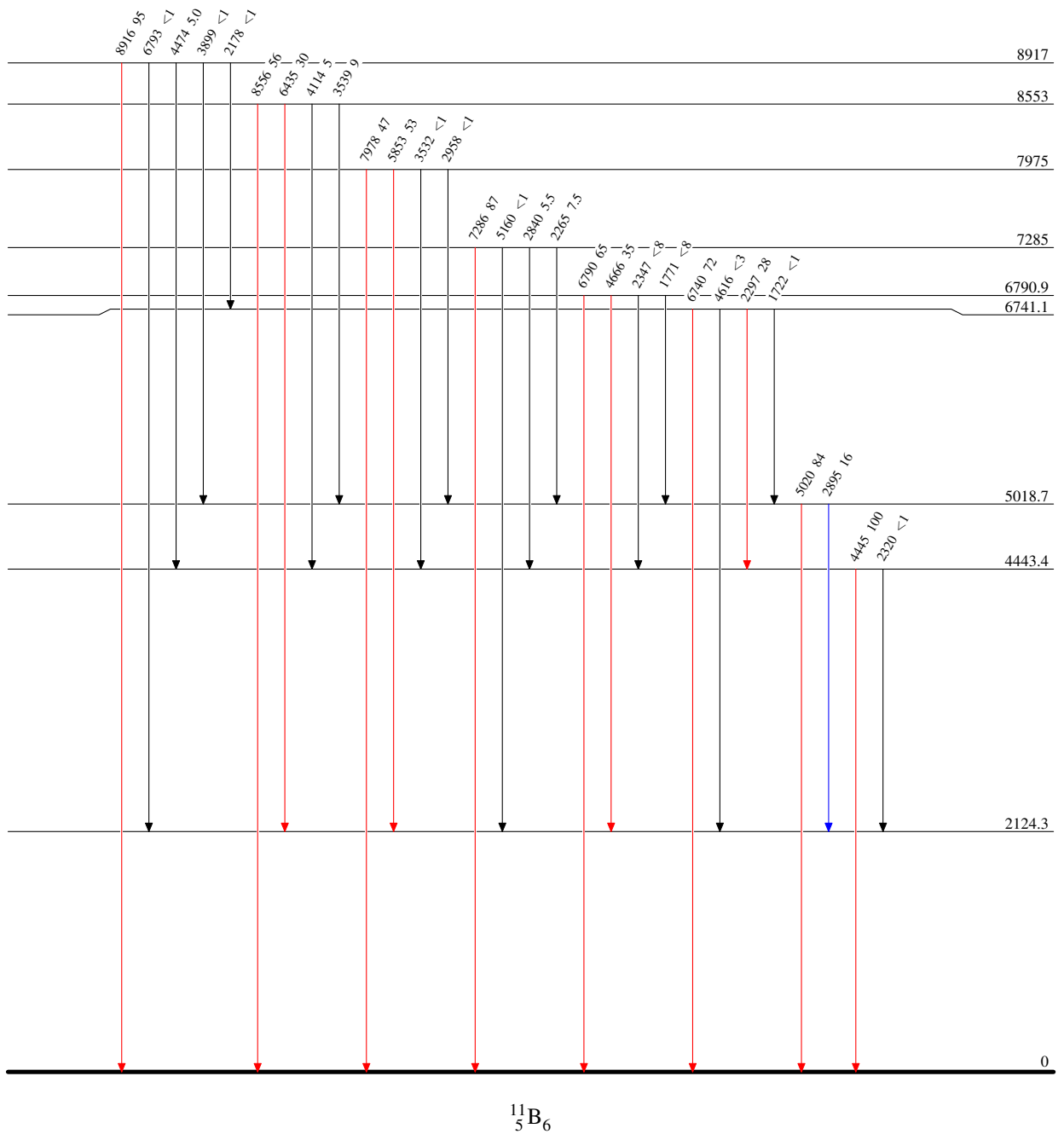^{9}Be(^{3}He,p)   1959Hi69,1966Br18,1982Zw02

Level Scheme

Intensities: Type not specified

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$

$^{11}_{5}$B$_6$