^{9}Be(α,p)   1991Ku10,1992Bo16,1994Ma05

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, J. E. Purcell and C. G. Sheu	NP A968, 71 (2017)	1-Jan-2017

1991Ku10: ^{9}Be(α,p), E=64 MeV, measured $\sigma(\theta)$, E_p; ^{12}B deduced levels, J, π, Γ.

1992Bo16: ^{9}Be(α,p), E=65 MeV, measured $\sigma(\theta)$. ^{12}B deduced levels, J, π, Γ, resonance strength. DWBA calculations.

1994Ma05: ^{9}Be(α,p), E=35.2, 39.7 MeV, measured $\sigma(\theta$(p)). ^{12}B deduced levels, Γ, J, π.

1994Ma06: ^{9}Be(α,p), E=29 MeV, measured pn-, pγ-coin. ^{12}B levels deduced Γ(n), $\Gamma(\alpha)$, J, π, resonance strengths.

^{12}B Levels

E(level)	J$^{\pi d}$	Γ	L^{c}	Comments
7610‡ 25		30 keV 15	3,4,5,6	
7700‡ 25		100 keV 30	3,4,5,6	
7870‡ 25		80 keV 30	3,4,5,6	
7990‡ 25		135 keV 40	3,4,5,6	
8150$^{\ddagger\&}$ 25		260 keV 80	3,4,5,6	
8170$^{\ddagger\&}$ 25		45 keV 15	3,4,5,6	
8410‡ 25		40 keV 15	3,4,5,6	
9035$^{\#}$ 5				
9393$^{\ddagger\#ab}$ 6		35 keV 10	0,1,2	E(level): From (1994Ma05); see also 9420 keV 15 in (1992Bo16). Γ: From (1992Bo16).
9434$^{\ddagger\#ab}$ 8		60 keV 20	0,1,2	E(level): From (1994Ma05); see also 9460 keV 15 in (1992Bo16). Γ: From (1992Bo16).
9582$^{\ddagger\#b}$ 4		45 keV 10	3,4,5,6	E(level): From (1994Ma05); see also 9600 keV 15 in (1992Bo16). Γ: From (1992Bo16).
10115† 11		$\approx$180 keV		
10199$^{\ddagger\#@}$ 3	2^{-}	9 keV 3	3,4,5,6	Γ_n=8.6 keV 29; $\Gamma\alpha$<2.1×10^{-3} keV E(level): See also E$_x$=10220 keV 15 (1992Bo16).
10418$^{\dagger\ddagger\#@}$ 11	<4^{-}	61 keV 25		E(level): From (1991Ku10). See also E$_x$=10420 keV 15 (1992Bo16), 10417 keV 14 (1994Ma05). Γ: From (1994Ma05). See also Γ=115 keV 40 (1992Bo16).
10564$^{\dagger\ddagger\#@}$ 3	2^{-}	11 keV 3	0,1,2	Γ_n=8.8 keV 25; $\Gamma\alpha$=2.2 keV 8 E(level): From (1994Ma05), See also E$_x$=10572 keV 11 (1991Ku10), 10570 keV 15 (1992Bo16). Γ: From (1994Ma06).
10880$^{\ddagger\#@}$ 3	3^{+}	17 keV 4	0,1,2	Γ_n=13.6 keV 33; $\Gamma\alpha$=3.4 keV 11 E(level): From (1994Ma05). See also E$_x$=10900 keV 15 (1992Bo16). Γ: From (1994Ma05).
11328$^{\dagger\ddagger\#@}$ 10	$\leq$8	75 keV 25	0,1,2	E(level): From (1994Ma05). See also E$_x$=11346 keV 11 (1991Ku10), 11350 keV 15 (1992Bo16). Γ: From (1994Ma05). See also Γ=125 keV 60 (1992Bo16).
11571$^{\ddagger\#@}$ 6	$\leq$8	45 keV 15	0,1,2	E(level): From (1994Ma05). See also E$_x$=11580 keV 15 (1992Bo16). Γ: From (1994Ma05). See also Γ=90 keV 30 (1992Bo16).
12226†‡ 11		155 keV 60	3,4,5,6	E(level): From (1991Ku10). See also E$_x$=12230 keV 15 (1992Bo16). Γ: From (1992Bo16).
12330‡ 15		45 keV 20	3,4,5,6	
12760‡ 15		160 keV 60	0,1,2	
13310‡ 15		55 keV 15	0,1,2	

† Reported in (1991Ku10).

^{9}**Be(α,p)**   **1991Ku10,1992Bo16,1994Ma05 (continued)**

^{12}B Levels (continued)

‡ Reported in (1992Bo16).

$^{\#}$ Reported in (1994Ma05).

$^{@}$ Reported in (1994Ma06).

$^{\&}$ ^{12}B*(8.15,8.17 MeV) were previously reported as a broad state at E$_x$=8.1 MeV.

^{a} ^{12}B*(9.39,9.43 MeV) were previously reported as a broad state at E$_x$=9.43 MeV.

^{b} In Table 1 of (1994Ma05), the authors report three states at E$_x$=9393, 9434 and 9582 keV. In the table, these states are not correctly paired with states reported in (1992Bo16). Inspection of the spectra support correlation of the ^{12}B*(9393,9434,9582) states of (1994Ma05) with the ^{12}B*(9393,9434,9582) states of (1992Bo16). This error was propogated into Table 12.8 of (2017Ke05) but was corrected in the analysis resulting in Table 12.5 where adopted level energies are given.

^{c} From (1992Bo16).

^{d} From (1994Ma05,1994Ma06).