

$^{10}\text{B}(^3\text{He},\text{p})$ [1962Br10,1972Al03](#)

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

[1964Ku09](#): $^{10}\text{B}(^3\text{He},\text{p}\gamma)$ E(^3He)=1.8-5.5 MeV, measured σ .

[1970Bo39](#): $^{10}\text{B}(^3\text{He},\text{p})$ E=10,11 MeV, measured $\sigma(E_{\text{p}},\theta)$. ^{12}C deduced levels, particle branching ratios.

[1972Al03](#): $^{10}\text{B}(^3\text{He},\text{p})$ E=2.2 MeV, measured $\sigma(E_{\text{p}},E_{\gamma})$. ^{12}C level deduced γ -branching, level-width.

[1972Be05](#): $^{10}\text{B}(^3\text{He},\text{p})$ E(X-ray)=25-35 MeV, measured $\sigma(90^\circ)$.

[1972Be56](#): $^{10}\text{B}(^3\text{He},\text{p})$ E=30-36 MeV, measured $\sigma(E,E_{\text{p}})$.

[1974An19](#): $^{10}\text{B}(^3\text{He},\text{p}\gamma)$ E=2.2 MeV, measured p- γ -coin. ^{12}C levels deduced p-width, γ -width, S.

[1976Ad03,1977Ad02](#): $^{10}\text{B}(^3\text{He},\text{p}\gamma)$ E=4.1 MeV, measured p- γ -coin. ^{12}C resonances deduced Γ_{γ} , isospin mixing.

[1983Ch08](#): $^{10}\text{B}(^3\text{He},\text{p})$ E=15.75 MeV, measured $\sigma(E_{\text{p}})$, Q.

[1996Mc09](#): $^{10}\text{B}(^3\text{He},\text{p})$ E=2-4 MeV, measured $\sigma(E_{\text{p}},\theta)$.

 ^{12}C Levels

E(level) [†]	J ^{π}	T _{1/2} [†]	Comments
0	0 ⁺		
4.44×10 ³	2 ⁺		
7655.6	0 ⁺		
9645.6		36 keV 6	
10849 25		320 keV 30	
11841 25		245 keV 30	
12713 6	1 ⁺	≈350 keV	$\Gamma_{\gamma}/\Gamma=0.025$ 10 T _{1/2} : ≈350 keV appears in (1985Aj01), but the value is untraceable.
13.29×10 ³ 3		0.43 MeV 10	T _{1/2} : Also see $\Gamma=290$ keV 70 (1966Wa16).
14083 15		252 keV 15	T _{1/2} : Also see $\Gamma=320$ keV 50 (1966Wa16).
15108 6	1 ⁺		T=1; $\Gamma_{\gamma}/\Gamma>0.95$
16108 6	2 ⁺		$\Gamma_{\gamma}/\Gamma=2.6\times 10^{-3}$ 5 I _{γ} : From (1977Ad02).
16.58×10 ³			
≈18.5×10 ³			T _{1/2} : Broad.
≈19.5×10 ³			T _{1/2} : Broad.
20.5×10 ³ 1	3 ⁺		T=1
22.×10 ³			

[†] From ([1962Br10](#)) except where noted.

 $\gamma(^{12}\text{C})$

E _i (level)	J ^{π} _i	E _{γ}	I _{γ}	E _f	J ^{π} _f	Comments
12713	1 ⁺	8273	13.0 16	4.44×10 ³	2 ⁺	
		12713	87.0 16	0	0 ⁺	I _{γ} : From (1977Ad02), see also (1972Al03) who found I _{γ} (12.1 MeV→0)=(15 4)% and I _{γ} (12.1 MeV→4.44 MeV)=(85 4)%.
15108	1 ⁺	2395	1.4 4	12713	1 ⁺	
		7452	2.6 7	7655.6	0 ⁺	
		10668	2.3 9	4.44×10 ³	2 ⁺	
		15108	92 2	0	0 ⁺	

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Level Scheme

Intensities: % photon branching from each level

