

Table 12.10 from (1968AJ02): Resonances in $^{11}\text{B}(p, \gamma)^{12}\text{C}$ and $^{11}\text{B}(p, \alpha)^8\text{Be}$

Peak number	E_p (MeV)	$\Gamma_{\text{c.m.}}$ (keV)	$\sigma(\gamma_0)$ (μb)	$\sigma(\gamma_1)$ (μb)	$\sigma(\alpha_0)$ (mb)	$\sigma(\alpha_1)$ (mb)	Γ_{γ_0} (eV)	Γ_{γ_1} (eV)
1	0.163 ^a	6.4 ^a	5.5	152	res.	res.	0.22 ± 0.09 ^b	6.8 ± 1.1
2	0.675	300	non-res.	48 ^f	non-res.	600 ^f	< 0.4	8.0
3	1.388	1150	[27] ^c	3	3.3	≈ 180	44	5
4	1.98	100	non-res.	non-res.	9.0	(25)	< 0.5	< 0.5
5	2.62	310	weak?	res.	32.4 ± 4.8	270 ± 40	< 1.5	3.2
6	2.66	42	non-res.	non-res.	non-res.	non-res.	< 0.5	< 0.5
7	3.01	100	non-res.	non-res.	3.4			
8	3.12	100	weak	[20] ^c	non-res.	non-res.	(0.4)	2.0
9	3.5	1100	[20] ^c	res.	5.2	res.	25	10
10	3.75	(1100)	non-res.	res.	7.4 ± 1.1	300 ± 40	< 3	3
11	4.93	180	non-res.	res.	non-res.	170 ± 40		
12	5.11	275	non-res.	[35] ^c	6.0 ± 0.9	non-res.		
13	6.0		res.	non-res.				
14	6.7		res.	[35] ^c	res.			
15	7.2	3200	120	non-res.		(res.)	≥ 2500 ^e	
16	8.3		res.	res.	res.			
17	10.15	115	non-res.	res.				
18	10.3	≈ 6500	[60] ^c	83				
19	11.76		non-res.	45 ^d	res.			
20	12.55		21 ^d	non-res.				
21	13.09		19 ^d	38 ^d				
22	[13.6]		non-res.	25 ^d				
23	14.19		16 ^d	non-res.				
24	20.1	≈ 4000	≈ 9	≈ 20				

Table 12.10 from (1968AJ02): Resonances in $^{11}\text{B}(p, \gamma)^{12}\text{C}$ and $^{11}\text{B}(p, \alpha)^8\text{Be}$ (continued)

Peak number	Γ_{α_0} (keV)	Γ_{α_1} (keV)	Γ_p (keV)	$^{12}\text{C}^*$ (MeV)	$J^\pi; T$	Refs.
1	0.290 ± 0.045	6.3 ± 0.5	0.069 ± 0.015	16.11	$2^+; 1$	(1953HU29, 1961SE10)
2	< 0.27	150	150	16.58	$2^-; (1)$	(1953BE61, 1953HU29, 1965SE06)
3	10	140	1000	17.23	$1^-; 1$	(1953HU29, 1963SY01, 1965SE06)
4	4.6	11.4	76	17.77	$0^+; (1)$	(1955HO48, 1963SY01, 1965SE06)
5	65	177	68	18.36	$(3^-; 0)$	(1955BA22, 1963SY01, 1965SE06)
6	< 1	< 5	33	18.39	0^-	(1965SE06)
7			< 10	18.71	n. $\pi.$ $g; (1)$	(1965SE06)
8	< 0.2	< 1.5	97	18.82	$2^+; (1)$	(1955BA22, 1965SE06)
9	50	200	300	19.2	$(1^-; 1)$	(1955BA22, 1965SE06)
10	20	450	450	19.40	$(2^+; 0)$	(1963SY01, 1965SE06)
11				20.47		(1955BA22, 1963SY01, 1964AL20)
12				20.64	$(3^-; 1)$	(1955BA22, 1963SY01, 1964AL20, 1964BL1D)
13				21.5		(1964AL20)
14				22.1		(1963BE18, 1964AL20)
15				22.6	$(1^-; 1)$	(1961GO13, 1963BE18, 1964AL20, 1964BL1D)
16				23.6		(1963BE18, 1964AL20, 1964BL1D)
17				25.26	$(T = 2)$	(1964AL20)
18				25.5		(1961GO13, 1963BE18, 1964AL20, 1967FE04)
19				26.9		(1963BE18, 1964AL20, 1964BL1D, 1967FE04)

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Peak number	Γ_{α_0} (keV)	Γ_{α_1} (keV)	Γ_p (keV)	$^{12}\text{C}^*$ (MeV)	$J^\pi; T$	Refs.
20				27.45		(1967FE04)
21				28.0		(1964AL20, 1967FE04)
22				28.45		(1967FE04)
23				28.9		(1967FE04)
24				34.4	(1 ⁻ ; 1)	(1963RE09)

^a 163.1 ± 0.2 keV, $\Gamma = 6.0 \pm 0.6$ keV: see text.

^b 1% branch to $^{12}\text{C}^*(9.63)$ (1961CA13).

^c Estimated from graph (1964AL20).

^d $4\pi \times \sigma(90^\circ)$.

^e Assuming a single resonance (1961GO13).

^f (1953BE61, 1953HU29).

^g n. π . = natural parity.