

Table 12.20 from (2017KE05): Some resonance partial widths in $^{11}\text{B}(p, \gamma)^{12}\text{C}$ and $^{11}\text{B}(p, \alpha)^8\text{Be}$ ^a

E_p (MeV)	Γ_{cm} (keV)	Γ_{γ_0} (eV)	Γ_{γ_1} (eV)	Γ_{α_0} (keV)	Γ_{α_1} (keV)	Γ_p (keV)	$^{12}\text{C}^*$ (MeV)	$J^\pi; T$
0.162 ^b	5.3 ± 0.2	0.59 ^c	12.8 ± 1.5 ^c	0.26 ± 0.03	5.0 ± 0.2	0.0215 ± 0.0033	16.1060 ± 0.0008	$2^+; 1$
0.675	300	< 0.4	8.0	< 0.27	150	150	16.576	$2^-; 1$
1.388	1150	44	5	10	140	1000	17.230	$1^-; 1$
2.00 ^d	96 ± 5			4.6	11.4	76	17.79	$0^+; 1$
2.37 ^h	600 ± 1000						18.13	$(1^+; 0)$
2.64 ^e	≈ 400	$\approx 2 \times 10^{-3}$	3.2	65	177	68	18.38	$3^-; 1$
2.66	43	< 0.5	< 0.5	< 1	< 5	33	18.39	0^-
3.01	100					< 10	18.71	$n.\pi.^g; (1)$
3.12	100	(0.4)	2.0	< 0.2	< 1.5	97	18.81	$2^+; 1$
3.5	1100	25	10	50	200	300	19.2	$(1^-; 1)$
3.75	(1100)	< 3	3	20	450	450	19.39	$(2^+; 0)$
7.25	3200	≥ 2500 ^f					22.6	$(1^-; 1)$

^a For references see (1975AJ02, 1980AJ01). See also (1985KI16: theory).

^b $E_{\text{res. (cm)}} = 149.1 \pm 0.7$ keV. This is the weighted average (Limitation of Statistical Weights Method) of the value quoted in reaction 20(a) and the two values in 20(c). This value corresponds to $E_x = 16106.0 \pm 0.8$ keV.

^c See Tables 12.14 here and 12.7 in (1990AJ01).

^d Decays via $^{12}\text{C}^*(12.71) [J^\pi; T = 1^+; 0]$: $\Gamma_\gamma = 3.7 \pm 1.5$ eV.

^e Γ_γ to $^{12}\text{C}^*(9.6) = 5.7 \pm 2.3$ eV, consistent with $J^\pi = 3^-; T = 1$.

^f Assuming a single resonance.

^g Natural parity.

^h Decays via $^{12}\text{C}^*(15.11) [1^+; 1]$: $(2J + 1) \Gamma_\gamma \geq 2.8 \pm 0.6$ eV.