

Table 8.9 from (1966LA04): Parameters of ${}^8\text{Be}^*(2.9)$ ^a

E_x (MeV)	$\Gamma_{\text{c.m.}}$ (MeV)	R (fm)	γ^2 (MeV)	θ^2 ^b	Reaction	Reference
(3.18)	1.5	3.5	3.36	1.27	${}^4\text{He}(\alpha, \alpha)$ ^c	(1963TO02)
		4.48	2.65	3.4	${}^7\text{Li}(\text{p}, \gamma\alpha)$	(1960GE07)
2.6 ± 0.15	0.7 ± 0.1				${}^7\text{Li}(\text{p}, \gamma)$	(1963BA58)
3.1 ± 0.1	1.75 ± 0.1				${}^7\text{Li}(\text{d}, \text{n})$	(1964JO04)
	1.6 ± 0.4				${}^7\text{Be}(\text{d}, \text{p})$	(1959SP1A)
2.90 ± 0.06	1.53 ± 0.04	5.75	0.60	0.64	${}^7\text{Be}(\text{d}, \text{p})$	(1960KA17)
2.8 ± 0.1	0.8				${}^9\text{Be}(\text{d}, \text{t})$	(1955CU16)
	1.35 ± 0.15	5		0.082	${}^9\text{Be}(\text{d}, \text{t})$	(1959VL24)
2.90 ± 0.04	1.35 ± 0.15				${}^9\text{Be}({}^3\text{He}, \alpha)$	(1963DO08)
3.06		5.5	0.62	0.60	${}^{10}\text{B}(\text{d}, \alpha)$	(1963PU02)
2.88 ± 0.08		4.48	3.0	≈ 2	${}^{10}\text{B}(\text{d}, \alpha)$	(1953TR04)
2.895 ± 0.028	1.45 ± 0.06				mean	

^a Spectra from several reactions – e.g. ${}^8\text{Li}(\beta^-, \alpha)$, ${}^8\text{B}(\beta^+, \alpha)$, ${}^{11}\text{B}(\text{p}, \alpha)$, ${}^9\text{Be}(\text{p}, \text{d})$ – are reported “consistent with phase shifts of ${}^4\text{He}(\alpha, \alpha)$ scattering” and so support the parameters of Table 8.8.

^b Units of $\frac{3}{2}(\hbar^2/\mu R^2)$.

^c See Table 8.8.