

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

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

<sup>a</sup> 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.

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

<sup>c</sup> See Table 8.8.