

Table 8.9 from (1979AJ01):  ${}^8\text{Be}$  levels from  ${}^7\text{Li}(p, p_0){}^7\text{Li}$  and  ${}^7\text{Li}(p, p_1){}^7\text{Li}^*$

$E_p$ (MeV)	$\Gamma_{\text{lab}}$ (keV)	${}^8\text{Be}^*$ (MeV)	$J^\pi$	$\Gamma_{p'}$ (keV)	Refs.
0.441	12.2 <sup>b</sup>	17.641	1 <sup>+</sup>		A, (1973BR13)
1.030 ± 0.005	168	18.156	1 <sup>+</sup>	≈ 6	A, (1973BR13)
1.88 <sup>a</sup>	55 ± 20	18.90	2 <sup>-</sup>		(1973BR13, 1974AR10, 1974DE45)
2.05	≈ 400	19.05	3 <sup>+</sup> <sup>g</sup>	small	A, (1973BR13)
2.25		19.22	3 <sup>+</sup> <sup>g</sup>	small	A, (1973BR13, 1974DE45)
2.5 <sup>c</sup>	≈ 750	19.4	1 <sup>-</sup>	res	(1972PR03, 1973BR13)
<sup>d</sup>					
4.2 ± 0.2	1800 ± 200	20.9 <sup>e</sup>	4 <sup>-</sup>	(res)	(1965GL03)
5.6	broad	22.2	<sup>f</sup>	res	(1965GL03, 1972PR03)

A: See references listed in (1974AJ01).

<sup>a</sup> (p, n) threshold: see reaction 16.

<sup>b</sup>  $\theta_p^2 = 0.064$ .

<sup>c</sup> See also Table 8.8,  $\gamma_{n_1}^2$  and  $\gamma_{p_1}^2 \approx 1\%$  of the Wigner limit (1972PR03).

<sup>d</sup> A 2<sup>+</sup> state at  $E_x \approx 20$  MeV appears to be necessary to account for the cross sections: see Table 8.3 and reaction 4 (1972PR03).

<sup>e</sup> Reduced width is 70% of the Wigner limit (1965GL03).

<sup>f</sup> May be due to two 2<sup>+</sup> states (1972PR03). See also reaction 16.

<sup>g</sup> See also (1978BA66; theor.).