

Table 8.9 from (1974AJ01): ^8Be levels from $^7\text{Li}(p, p_0)^7\text{Li}$ and $^7\text{Li}(p, p_1)^7\text{Li}^*$

E_p (MeV)	Γ_{lab} (keV)	$^8\text{Be}^*$	J^π	$\Gamma_{p'}$ (keV)	Refs.
0.441	12.2 ^b	17.642	1 ⁺		(1953CH1A, 1953WA27, 1973BR13)
1.030 ± 0.005	168	18.157	1 ⁺	≈ 6	(1954MO04, 1955LI1B, 1973BR13)
1.88 ^a	55 ± 20	18.90	2 ⁻		(1974AR10, 1973BR13)
2.05	≈ 400	19.05	3 ⁺	small	(1956MA12, 1957NE1A, 1973BR13)
2.25		19.22	3 ⁺	small	(1956MA12, 1957NE1A, 1973BR13)
2.5 ^c	≈ 750	19.4	1 ⁻	res.	(1972PR03, 1973BR13)
^d					
4.2 ± 0.2	1800 ± 200	20.9 ^e	4 ⁻	(res.)	(1965GL03)
5.6	broad	22.2	^f	res.	(1965GL03, 1972PR03)

^a (p, n) threshold: see [reaction 17](#).

^b $\theta_p^2 = 0.064$.

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

^d A 2⁺ 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](#)).

^e Reduced width is 70% of the Wigner limit ([1965GL03](#)).

^f May be due to two 2⁺ states ([1972PR03](#)). See also [reaction 17](#).