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

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

A: See references listed in (1974AJ01).

[a] (p, n) threshold: see reaction 16.

[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 16.

[g] See also (1978BA66; theor.).