

Table 8.13 from (2004TI06):  
 $^8\text{Be}$  levels from  $^7\text{Li}(p, p_0)^7\text{Li}$  and  $^7\text{Li}(p, p_1)^7\text{Li}^*$  <sup>a</sup>

$E_p$ (MeV)	$\Gamma_{\text{lab}}$ (keV)	$^8\text{Be}^*$ (MeV)	$J^\pi$	$\Gamma_{p'}$ (keV)
0.441	12.2 <sup>b</sup>	17.640 <sup>c</sup>	1 <sup>+</sup>	
1.030 ± 0.005	168	18.155	1 <sup>+</sup>	≈ 6
1.895 <sup>d,i</sup>	55 ± 20	18.912 <sup>i</sup>	2 <sup>-</sup>	
2.058 <sup>i</sup>	≈ 294 <sup>i</sup>	19.055 <sup>i</sup>	3 <sup>+</sup>	small
2.245 <sup>i</sup>	≈ 203 <sup>i</sup>	19.218 <sup>i</sup>	3 <sup>+</sup>	small
2.451 <sup>i</sup>	≈ 640 <sup>e,i</sup>	19.399 <sup>i</sup>	1 <sup>-</sup>	> 0
f				
4.2 ± 0.2	1800 ± 200 <sup>g</sup>	20.9	4 <sup>-</sup>	(> 0)
5.6	broad	22.2	<sup>h</sup>	> 0

<sup>a</sup> See references in [Table 8.9 in \(1979AJ01\)](#) and [\(1988GU10\)](#).

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

<sup>c</sup> See also [\(1981BA36; theor.\)](#).

<sup>d</sup> (p, n) threshold: see [reaction 15](#).

<sup>e</sup> See also [Table 8.8 in \(1979AJ01\)](#),  $\gamma_{n1}^2$  and  $\gamma_{p1}^2 \approx 1\%$  of Wigner limit.

<sup>f</sup> A 2<sup>+</sup> state at  $E_x \approx 20$  MeV appears to be necessary to account for the cross sections: see [Table 8.9](#) and [reaction 4](#).

<sup>g</sup> Reduced width is 70% of the Wigner limit.

<sup>h</sup> May be due to two 2<sup>+</sup> states. See also [reaction 15](#).

<sup>i</sup> [\(1988GU10\)](#).