

Table 12.1 from (2017KE05): Energy levels of  $^{12}\text{Li}$

$E_x$ (MeV $\pm$ keV)	$E_{\text{res}}(^{11}\text{Li} + \text{n})$ (keV)	$J^\pi$	$\Gamma$ (keV)	Decay	Reactions
0	$120 \pm 15$ <sup>a, b</sup>	(2 <sup>-</sup> )		n	1, 2, 3
$0.130 \pm 25$	$250 \pm 20$	(4 <sup>-</sup> )	< 15	n	3
$0.435 \pm 25$	$555 \pm 20$	(1 <sup>-</sup> )	< 80	n	3
$3.880 \pm 201$	$4000 \pm 200$		$1100 \pm 400$	(n)	4
$\approx 6.500$	6000 to 7000			(n)	4

<sup>a</sup> This resonance energy is based on  $a_s = -13.7$  fm (2008AK03). The s-wave strength is accepted as the ground state since reactions 1, 2 and 3 report non-negligible s-wave strength. The most inclusive interpretation is accepted.

<sup>b</sup> The results of (2013KO03) indicate an incompatible value,  $a_s > -4$  fm. There is no consensus between the GSI work (2008AK03) and the MSU work (2013KO03). Important details that are relevant for understanding the different interpretations include differences in the prescriptions used to extract the scattering lengths and the efficiencies for 2n-events at low relative energy. Further results are necessary to better constrain the s-wave strength parameters.