

$^{26}\text{Mg}(^6\text{Li,d}), ^{34}\text{S}(d,^6\text{Li})$ [1983Ta08,1983Oe03](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia, A. Chakraborty		NDS 197,1 (2024)	31-May-2024

[1983Ta08](#): $^{26}\text{Mg}(^6\text{Li,d})$, $E_{^6\text{Li}}=72.7$ MeV; self-supporting ^{26}MgO (99.7% enriched, 0.3 mg/cm² thick) target; measured (E_d, θ); QDD spectrograph, proportional counter; deduced levels, relative spectroscopic factors. FWHM=100 keV.

[1983Oe03](#): $^{34}\text{S}(d,^6\text{Li})$, $E_d=80$ MeV; Two or three ΔE -E surface barrier detector telescopes; measured ($E(^6\text{Li})$), $\sigma(\theta)$ from 9° to 45° in the laboratory frame; deduced levels, relative spectroscopic factors. FWHM=350 keV.

 ^{30}Si Levels

E(level) [†]	J ^π [#]	L [@]	S ^{&}	Comments
0	0 ⁺	0	1.0	S: 2.0 (absolute value for ($^6\text{Li,d}$) in 1983Ta08). 0.84, 0.37 (1983Oe03 – obtained using two sets of potential and other parameters).
2.24×10^3	2 ⁺	2	0.36	S: 1.71 (1983Oe03 – for ($d,^6\text{Li}$)).
3.7×10^3 [‡]	1 ⁺	0		S: 0.53 (1983Oe03 – for ($d,^6\text{Li}$)).
5.28×10^3	4 ⁺	4,(4)	0.19	S: 1.9,(1.8) (1983Oe03 – for ($d,^6\text{Li}$)). (1.8) if a combination of L=4+2 instead of L=4+0. L=2 and 0 for 5614 or 5372 levels, respectively.
5.49×10^3	3 ⁻		0.38	
5614 [‡]	2 ⁺	(2)		E(level): from the Adopted Levels, rounded value. S: (1.1) (1983Oe03 – for ($d,^6\text{Li}$)) for a combination of L=(2)+4 in 1983Oe03 . L=4 is for 5.3×10^3 keV level.
5.95×10^3	4 ⁺		0.29	
6.74×10^3	1 ⁻		0.45	
6.9×10^3 [‡]	2 ⁺	(2)		S: (1.2) (1983Oe03 – for ($d,^6\text{Li}$)).
7.04×10^3	5 ⁻		0.41	
8.93×10^3	(6 ⁺)		0.75	
10.6×10^3	6 ⁺		0.55	

[†] From [1983Ta08](#), except where otherwise noted.

[‡] From [1983Oe03](#).

[#] From the Adopted Levels.

[@] From [1983Oe03](#), based on measured $\sigma(\theta)$ and DWBA analysis.

[&] For ($^6\text{Li,d}$), from [1983Ta08](#), in relative scale. In comments the spectroscopic factors for ($d,^6\text{Li}$), relative to the $^{20}\text{Ne} \geq ^{16}\text{O}_{g.s.}$ transition are listed from [1983Oe03](#).