

$^{27}\text{Al}(\text{d},\alpha),(\text{d},\alpha\gamma)$ [1989Li13](#),[1971Di20](#),[1962Sh01](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	R. B. Firestone	NDS 110, 1691 (2009)	1-Feb-2008

[1962Sh01](#): $^{27}\text{Al}(\text{d},\alpha)$ E=12.5 MeV. Magnetic spectrometer.

[1989Li13](#): $^{27}\text{Al}(\text{d},\alpha)$ E=7.5, 8.0, 8.5 MeV. Measured $a(\theta)$, $a(E\alpha)$. Multi-angle spectrograph, emulsion plates, Hauser-Feshbach analysis.

Other references: [1975Ko20](#), [1974Ta03](#), [1971Li16](#), [1968Ho14](#).

[1971Di20](#): $^{27}\text{Al}(\text{d},\alpha\gamma)$ E=1.8, 1.9 MeV. Measured $\sigma(E\alpha, E\gamma)$. Annular surface barrier α particle detector, NaI(Tl).

 ^{25}Mg Levels

<u>E(level)[†]</u>	<u>E(level)[†]</u>	<u>E(level)[†]</u>	<u>E(level)[†]</u>
0	5247 5	6840 9	7962 7
586 6	5456 3	6877 4	8009 5
974 3	5465 6	6910 7	8075 8
1608 2	5519 3	6948 4	8110 6
1962 8	5528 6	7032 4	8256 6
2566 5	5747 6	7084 7	8310 5
2736 7	5790 5	7179 6	8356 5
2801 6	5855 5	7224 13	8400
3404 5	5973 6	7279 5	8445 6
3412 6	6037 5	7372 6	8552 3
3907 6	6078 6	7408 5	8649 5
3967 7	6168 5	7493 6	8705 6
4058 7	6359 5	7528 9	8734 14
4274 7	6436 6	7552 4	8822 19
4357 7	6484 12	7573 5	8985 16
4712 8	6566 4	7638 7	
5006 5	6677 5	7796 5	
5110 9	6785 5	7853 5	

[†] Average of [1989Li13](#) and [1962Sh01](#).

 $\gamma(^{25}\text{Mg})$

<u>E_{γ}[†]</u>	<u>I_{γ}[†]</u>	<u>E_i(level)</u>	<u>E_f</u>
765 10	68 5	2736	1962
831 10	79 2	2801	1962
1759 11	31 5	2736	974
2216 11	11 5	2801	586
2732 7	0.3 2	2736	0
2798 7	9 3	2801	0

[†] From [1971Di20](#).

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Level Scheme

Intensities: Type not specified

Legend

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$

