

$^{30}\text{Si}(\text{d,t}),(^3\text{He},\alpha)$ 1984Mc12,1970De40,1967De17

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 113, 909 (2012)	1-Jan-2012

$J^\pi(^{30}\text{Si})=0^+$.

Others:

$^{30}\text{Si}(\text{p,d})$: 1975Ha13.

$^{30}\text{Si}(^3\text{He},\alpha),(\text{pol } ^3\text{He},\alpha)$: 1970De31, 1970Mc12.

$^{30}\text{Si}(^{16}\text{O},^{17}\text{O})$: 1975Ts01.

$^{30}\text{Si}(^{28}\text{Si},^{29}\text{Si})$: 1974Hi07, 1976Ba36.

1984Mc12: $^{30}\text{Si}(\text{pol } ^3\text{He},\alpha)$: 95% enriched ^{30}Si , $E=33.4$ MeV pol ^3He ; ΔE -E semiconductor detectors; deduced excitation energy, spectroscopic factors.

1970De40: $^{30}\text{Si}(^3\text{He},\alpha)$: Target: $^{30}\text{SiO}_2$; Projectile: ^3He , $E=15.4$ MeV; magnetic spectrograph was used to analyze α particles; deduced excitation energy, spectroscopic factor, proposed J^π .

1967De17: $^{30}\text{Si}(^3\text{He},\alpha),(\text{d,t})$: 95.5% enriched ^{30}Si , $E=33$ MeV, deduced excitation energy, spectroscopic factor.

 ^{29}Si Levels

E(level) [†]	J^π [†]	L	$\text{C}^2\text{S}^\ddagger$	Comments
0	$1/2^+$		0.83	C^2S : Other: 0.7 ($(^3\text{He},\alpha)$ –1967De17).
1273.387 9	$3/2^+$		0.54	C^2S : Other: 1.2 ($(^3\text{He},\alpha)$ –1967De17).
2028.16 4	$5/2^+$		1.15	C^2S : Other: 1.7 ($(^3\text{He},\alpha)$ –1967De17).
2425.97 3	$3/2^+$		0.18	C^2S : Other: 0.21 ($(^3\text{He},\alpha)$ –1967De17).
3067.13 5	$5/2^+$		0.08	C^2S : Other: 0.18 ($(^3\text{He},\alpha)$ –1967De17).
3623.49 15	$7/2^-$		0.07	C^2S : Other: 0.11 ($(^3\text{He},\alpha)$ –1967De17).
4079.9 3	$7/2^+$		0.06	
4895.2 4	$5/2^+$		0.83	C^2S : Other: 1.0 ($(^3\text{He},\alpha)$ –1967De17).
6710 1	$(5/2^+)$		0.45	
8331.0 6			1.33	C^2S : Other: 1.7 ($(^3\text{He},\alpha)$ –1967De17).
9630 7	$1/2^+$	0	0.10 [#]	
11087 7	$3/2^+$	2	0.3 [#]	
11305 9	$(3/2^+, 5/2^+)$	2	[#]	
11665 10	$1/2^+$	0	0.04 [#]	

[†] From Adopted Levels.

[‡] From 1984Mc12, except otherwise noted, in $(^3\text{He},\alpha)$.

[#] From 1970De40.