^{29}Si(^{6}Li,d)   **1979Es05**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh	NDS 199,1 (2025)	30-Sep-2024

Target J^{π}(^{29}Si g.s.)=1/2^{+}.

1979Es05: E=36 MeV ^{6}Li beam was produced from the MP tandem accelerator of the University of Rochester. Target was enriched isotopic ^{29}SiO$_2$ (95.28% ^{29}Si), with a thickness of about 100 μg/cm^2. Reaction products were momentum-analyzed with an Enge split-pole magnetic spectrograph (FWHM=50 keV) and detected with nuclear emulsion plates for deuterons. Measured σ(E$_d$,θ), $\theta_{\text{c.m.}}$=5° to 40°. Deduced levels, J, π, L-transfers, spectroscopic factors for levels of 0, 840, 1966, 2313, 4210 and 5715 keV from the DWBA analysis of the data.

Additional information 1.

^{33}S Levels

Spectroscopic strength S=$\sigma(\theta)_{\text{exp}}/\sigma(\theta)_{\text{DWBA}}$/g, where g=(2J$_f$+1)/(2J$_i$+1)(1979Es05).

E(level)[†]	J$^{\pi}$[‡]	L[†]	Relative Strength[†]
0	3/2^{+}	2	1.0
840	1/2^{+}	0	1.55
1966	5/2^{+}	2	0.31
2313	3/2^{+}	2	0.28
4210	3/2^{-}	1	1.15
5715	1/2^{-}	1	2.28

[†] From 1979Es05, with L and S from DWBA analysis of measured $\sigma(\theta)$.
[‡] As used in 1979Es05 for extracting spectroscopic strengths. The same values are adopted in Adopted Levels.