^{32}S(d,d′),(pol d,d′) 1969Me20,1980Cl06

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 201,1 (2025)	31-Oct-2024

1969Me20: (d,d′) E=18 MeV deuterons from the Yale MP tandem Van de Graaff accelerator. Target was H_2S gas cell (95% enriched in ^{32}S). Scattered particles were detected with solid state detectors. Measured energy spectrum, $\sigma(\theta)$. Deduced levels, J, deformation parameters from DWBA analysis and coupled-channel analysis.

1980Cl06: (pol d,d′) E=20 MeV deuterons from the Munich MP tandem Van de Graaff accelerator. Measured vector analyzing powers. Deduced transition strengths from Coupled-channel analysis.

Others:

2004Ko64: (d,d′) E=171 MeV. Measured $\sigma(\theta)$.

1987Nu01,1980Ma10: (pol d,d′) E=52 MeV. Measured $\sigma(\theta)$ and analyzing power. Deduced deformation parameters for different optical models.

1980Ha14: (pol d,d′) E=56 MeV. Measured $\sigma(\theta)$ and analyzing power.

^{32}S Levels

For transition strengths from 1980Cl06 as given under comments, uncertainty has been taken by the evaluator as the maximum value in the ranges in authors′ generate statement: uncertainty is assumed to be 5%−10% for B(E2)(2230 to g.s.) and 20%−40% for others.

E(level)[†]	Jπ[‡]	Comments
0	0^+	
2237	2^+	B(E2)(W.u.)=10.1 *10* (1980Cl06) Electric quadrupole moment Q=−0.0013 (1980Cl06). β_2=0.30 (1969Me20).
3780	0^+	
4290	2^+	B(E2)(W.u.)=1.4 *6* (1980Cl06) B(E2)(W.u.)(4290 to 2230)=13.5 *54* (1980Cl06).
4470	4^+	
5010	3^-	β_3=0.30 (1969Me20).

[†] From 1969Me20.
[‡] From Adopted Levels.