^{70}Ge(d,d′)   1967Kr01,1978Sz08

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	G. Gürdal, E. A. Mccutchan	NDS 136, 1 (2016)	1-Jul-2016

1967Kr01: E_d=12 MeV. Measured $\sigma(\theta)$ for θ(lab)=30°−165°; DWBA analysis.

1978Sz08: E_d=16 MeV polarized d provided by Notre Dame Van de Graaff. 84.6% enriched ^{70}Ge target. Scattered particles detected with a scattering chamber using four ΔE-E detectors. Measured $\sigma(\theta)$ and vector analyzing power; DWBA and coupled channel analysis.

1985Se05: E_d=8 and 16 MeV polarized d provided by Notre Dame Van de Graaff. 84.6% enriched ^{70}Ge target. The reaction products detected with a scattering chamber using four ΔE-E detectors. Measured $\sigma(\theta)$ and vector analyzing power; coupled channel analysis.

Other: 2004Ko64.

^{70}Ge Levels

E(level)[†]	Comments
0	
1040	
1210	
1710	J^{π}=(2$^+$) from angular distribution (1967Kr01).
2160	J^{π}=(4$^+$) from angular distribution and comparison with angular distribution data on ^{72}Ge (1967Kr01).
2580	J^{π}=(3$^-$) from large yield and comparison with 2520 keV level of ^{72}Ge with J^{π}=3$^-$ (1967Kr01).
3063	J^{π}=4$^+$ assignment by other reaction studies confirmed by the $\sigma(\theta)$ data; but little could be concluded from the fit to the vector analyzing power (VAP) data (1978Sz08).
3430	J^{π}=4$^+$ shows better overall fit to the $\sigma(\theta)$ and VAP data; however, it is possible that the data have contributions from more than one level (1978Sz08).
3540	J^{π}=(4$^+$) appears to be most consistent with $\sigma(\theta)$ and VAP data; because of the experimental uncertainties of the data on this weakly excited level, this assignment is tentative (1978Sz08).

[†] From 1967Kr01 up to 2580; remaining levels are from 1978Sz08.