

$^{32}\text{S}(\text{p},\alpha),(\text{p},\alpha\gamma)$ 1974De27,1971Fo02,1970La17

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

1974De27: $^{32}\text{S}(\text{p},\alpha)$: Natural sulfur target, $^{32}\text{S}(95.0\%),^{34}\text{S}(4.2\%)$; proton beam, $E=15,16$ MeV; reaction products were momentum analyzed using magnetic spectrograph; measured α spectra; deduced excited level energies.

1971Fo02: $^{32}\text{S}(\text{p},\alpha\gamma)$: Natural sulfur in Sb_2S_3 target; proton beam, $E=14$ MeV; γ -ray angular correlations were measured using six NaI(Tl) crystals; Measured particle-gamma coincidence, γ -ray branching, deduced mixing ratios.

1970La17: $^{32}\text{S}(\text{p},\alpha\gamma)$: Natural sulfur in CdS target; proton beam, $E=12$ to 13 MeV; NaI(Tl) detector; Measured E_α , E_γ , $\alpha\gamma(\theta)$; deduced ^{29}P levels, J , π , γ -ray branching, and γ -ray mixing ratios.

 ^{29}P Levels

E(level) [†]	E(level) [†]	E(level) [†]	E(level) [†]
0	3445.1 24	4954 3	5741 4
1383.4 14	4080.0 27	5047 3	5826 5
1952.6 16	4337 5	5293 4	5968?
2422.2 19	4641 3	5583 4	
3104.7 22	4761?	5716 4	

[†] From 1974De27.

 $\gamma(^{29}\text{P})$

$E_i(\text{level})$	E_γ [†]	I_γ [‡]	E_f	Mult. [@]	δ [#]	Comments
1383.4	1383.3	100	0	D+Q	-0.07 7	δ : Other: -0.12 7 (1970La17).
1952.6	569.2	9 2	1383.4	D+Q	+0.14 9	
	1952.5	91 2	0			
2422.2	469.6	5 2	1952.6			
	1038.8	12 2	1383.4	D+Q	-0.15 14	
	2422.0	83 3	0	D+Q	+0.23 3	δ : Other: +0.16 5 (1970La17).

[†] Calculated from level energy differences, $E_i - E_f$ and recoil energy subtracted, by the evaluator.

[‡] From 1971Fo02. γ -ray intensities in 1970La17 are in agreement with the data in 1971Fo02.

[#] From 1971Fo02. Values in 1970La17 are quoted as comments.

[@] Assigned by the evaluator based on the reported mixing ratio data.

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Level Scheme

Intensities: % photon branching from each level

