

$^{32}\text{S}(\text{n},\text{d})$  **1968Wa03**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh		NDS 184, 29 (2022)	24-Jun-2022

**1968Wa03:** E=14.1 MeV neutrons. Enriched  $^{32}\text{S}$  targets (99.9%  $^{32}\text{S}$ ). Proportional counters and CsI scintillator for particle detection. Deuteron spectra and angular distributions measured. DWBA and Butler theory analysis.

**1964Co18:** E=14 MeV neutrons. Reported g.s. and a level at 450  $I9$ . Measured angular distribution indicated  $1/2^+$  based on Butler theory, for g.s. and the 450 level. However, the 450 level is not confirmed in other studies and could corresponds to some impurity. Others: [1975Pe10](#), [1963Za01](#) (also [1963Za05](#),[1961Za01](#)), [1960Co12](#), [1960Ve06](#).

 $^{31}\text{P}$  Levels

E(level)	$L^\dagger$	$S^\dagger$	Comments
0	0	3.0 2	L: also from <a href="#">1963Za01</a> . $\sigma=25.6$ mb/sr $I9$ ( <a href="#">1968Wa03</a> ), at $\theta=0^\circ$ .
1270	4.9 $I2$	$\sigma=1.4$ mb/sr $3$ ( <a href="#">1968Wa03</a> ), average over $\theta=9^\circ-43^\circ$ .	
2230	10.2 $I8$	$\sigma=1.5$ mb/sr $4$ ( <a href="#">1968Wa03</a> ), average over $\theta=9^\circ-43^\circ$ .	

<sup>†</sup> From DWBA analysis of measured  $\sigma(\theta)$  in [1968Wa03](#).