^{36}S(t,pγ) 1986Ol08

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 152, 1 (2018)	30-Sep-2017

1986Ol08: E=6 MeV triton beam was produced from LANL 9-MeV Tandem Van de Graaff and 2.9 MeV triton from BNL 3.5-MV Van de Graaff. Target was a silver foil sulfided on one side with 300 μg/cm^2 enriched sulfur (81.1% in ^{36}S). Scattered protons and γ rays were detected with by an annular plastic scintillator and two gamma-x detectors, respectively, at LANL and by an annular silicon counter and a Ge(Li) detector, respectively, at BNL. Measured Eγ, pγ-coin, p$\gamma(\theta)$, Doppler-shift attenuation. Deduced levels, J, $T_{1/2}$, transition strengths. Comparisons with shell-model calculations.

1987Wa14: E=3.2 MeV triton beam was produced from BNL 3.5-MV Van de Graaff. Target was the same as in 1986Ol08. Measured (1513γ)(1292γ) coin to confirm 2805 level in 1986Ol08.

^{38}S Levels

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$[#]	Comments
0	0^+		
1291.92 *20*	2^+	>0.31 ps	J$^\pi$: 2 from p$\gamma(\theta)$ in 1986Ol08.
2805.0 *20*	(2^+)	0.08 ps *+9−5*	
2825.2 *11*	4^+	>0.14 ps	

[†] From a least-squares fit to γ-ray energies.
[‡] From Adopted Levels.
[#] From Doppler-shift attenuation method (DSAM) in 1986Ol08.

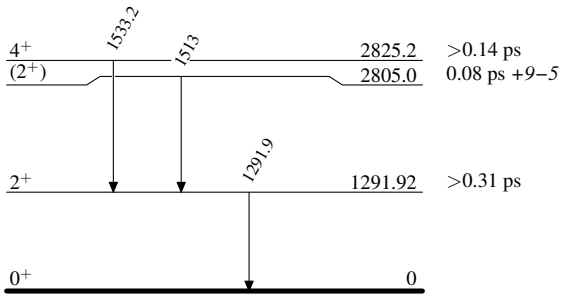
$\gamma(^{38}S)$

E$_\gamma$[†]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
1291.9 *2*	1291.92	2^+	0	0^+
1513 *2*	2805.0	(2^+)	1291.92	2^+
1533.2 *10*	2825.2	4^+	1291.92	2^+

[†] From 1986Ol08.

^{36}S(t,pγ) 1986Ol08

Level Scheme



$^{38}_{16}S_{22}$