^{36}S(^{18}O,^{16}O),(^{18}O,^{16}Oγ) 1984Ma49

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

1984Ma49: E=80 MeV ^{18}O beam was produced from the Munich MP-Tandem accelerator. Target was Ag_2S (80% in ^{36}S) on a carbon backing. Reaction products were momentum-analyzed with the Munich Q3D spectrograph and detected with a long position-sensitive ΔE-E ionization chamber; γ rays were detected with a true-coaxial Ge(Li) detector. Measured σ at θ=10°, Eγ, particle-γ-coin. Deduced levels.

^{38}S Levels

E(level)	J$^{\pi}$[#]
0	0$^+$
1296.2[†] *4*	2$^+$
2834.4[†] *7*	4$^+$
3737.4[†] *13*	
4430[‡] *20*	
6020[‡] *30*	

[†] From Eγ (1984Ma49).
[‡] From E(^{18}O) (1984Ma49).
[#] From Adopted Levels.

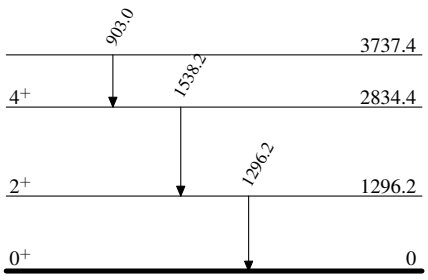
γ(^{38}S)

E$_\gamma$[†]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
903.0 *10*	3737.4		2834.4	4$^+$	E$_\gamma$: value adjusted by 3 keV lower when used in Adopted Gammas.
1296.2 *4*	1296.2	2$^+$	0	0$^+$	
1538.2 *5*	2834.4	4$^+$	1296.2	2$^+$	

[†] The values seem systematically higher as compared to those in β^- decay, (t,pγ) and (^{36}S,^{38}Sγ): 4 keV for 1296γ, 5 keV for 1538γ.

^{36}S(^{18}O,^{16}O),(^{18}O,^{16}Oγ) **1984Ma49**

Level Scheme



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