$^{12}C(^{34}S,^{8}Be\gamma)$ 2006Sp01

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

2006Sp01: E=67 MeV ^{34}S beam was produced from the Munich tandem accelerator. Target was natural carbon. γ rays were detected with NaI(Tl) scintillators and a Ge detector and scattered ions were detected with a Si counter. Measured Eγ, 2$\alpha\gamma$-coin, particle-$\gamma(\theta)$, precession angles for g-factor, Doppler-shift attenuation. Deduced levels, lifetimes, g-factors, B(E2) values. Comparisons with shell-model calculations.

^{38}Ar Levels

g-factors are deduced from measured precession angles and lifetimes using the transient magnetic field technique (2006Sp01).

E(level)	J^{π} †	$T_{1/2}$ ‡	Comments
0	0^+		
2167	2^+	492 fs *21*	g=+0.24 *12* (2006Sp01)
3377	0^+		
3810	3^-		
3937	2^+	47 fs *6*	g=+1.1 *11* (2006Sp01)
4480	4^-		
4565	2^+	35 fs *3*	
4586	5^-		

† From Adopted Levels.
‡ From 2006Sp01 by DSAM.

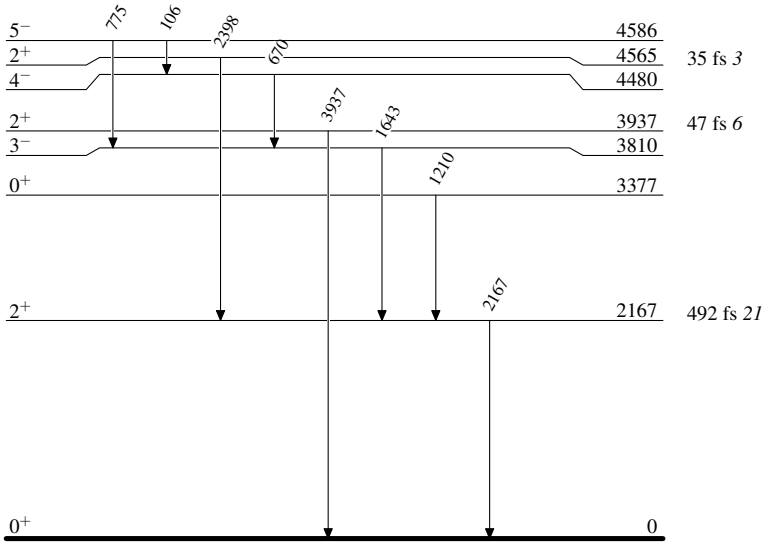
$\gamma(^{38}Ar)$

E_γ †	E_i(level)	J_i^{π}	E_f	J_f^{π}
106	4586	5^-	4480	4^-
670	4480	4^-	3810	3^-
775	4586	5^-	3810	3^-
1210	3377	0^+	2167	2^+
1643	3810	3^-	2167	2^+
2167	2167	2^+	0	0^+
2398	4565	2^+	2167	2^+
3937	3937	2^+	0	0^+

† Reported in 2006Sp01.

$^{12}C(^{34}S,^{8}Be\gamma)$ **2006Sp01**

Level Scheme



$^{38}_{18}Ar_{20}$