

Be($^{36}\text{S},\text{X}$), $^{12}\text{C}(^{23}\text{O},\text{xn}\gamma)$ 2004St08,2004Co11

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 127, 69(2015)	1-Apr-2015

Be($^{36}\text{S},\text{x}$) E=77.5 MeV/A: 2004St08, 2004St10. SPEG spectrometer measured recoil TOF, ΔE , and focal plane position. HPGe and BaF₂ detectors, $\gamma\gamma$ coincidences. Other references: 2000Az01, 2001Be09, 2002Az01, 2002Gu08.

$^{12}\text{C}(^{23}\text{O},^{22}\text{Ox})$, E=938 MeV/A: 2004Co11; Measured one-neutron removal σ , $E\gamma$, $I\gamma$, (particle) γ -coincidence, longitudinal momentum distribution.

 ^{22}O Levels

E(level) [†]	J^π [‡]	Comments
0	0 ⁺	
3199 8	(2 ⁺)	
4582 9	(3 ⁺)	
4909? 90	(0 ⁺)	
5800?	(1 ⁻ ,0 ⁻)	J^π : From 2004Co11.
6509 90	(2 ⁺)	
6936 10	(4 ⁺)	

[†] From $E\gamma$'s.

[‡] From shell model calculations.

 $\gamma(^{22}\text{O})$

E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Comments
1218 [‡] #		5800?	(1 ⁻ ,0 ⁻)	4582	(3 ⁺)	
1383 4	43 8	4582	(3 ⁺)	3199	(2 ⁺)	
1710 [#] 90	12 6	4909?	(0 ⁺)	3199	(2 ⁺)	E_γ, I_γ : Tentatively observed in BaF ₂ only.
2354 6	20 7	6936	(4 ⁺)	4582	(3 ⁺)	
2600 [‡] #		5800?	(1 ⁻ ,0 ⁻)	3199	(2 ⁺)	
3199 8	100 15	3199	(2 ⁺)	0	0 ⁺	
3310 90	<17	6509	(2 ⁺)	3199	(2 ⁺)	E_γ, I_γ : Observed in BaF ₂ only.
3710 90	15 7	6936	(4 ⁺)	3199	(2 ⁺)	E_γ, I_γ : Observed in BaF ₂ only.

[†] From HPGe measurements (2004St08), except as noted.

[‡] From level-energy difference; transition shown in level scheme figure 2 in 2004Co11.

Placement of transition in the level scheme is uncertain.

Be($^{36}\text{S,X}$), $^{12}\text{C}(^{23}\text{O,xn}\gamma)$ 2004St08,2004Co11

Legend

Level Scheme

Intensities: Relative I_γ

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{max}$
- $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{max}$
- $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{max}$
- $-----\blacktriangleright$ γ Decay (Uncertain)

