

$^{36}\text{S}(^{14}\text{C},\text{p}2\text{n}\gamma)$ 1986Wa19

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. W. Burrows	NDS 108, 923 (2007)	20-Feb-2007

E=18-38 MeV. See $^{10}\text{B}(^{40}\text{Ca},3\text{p}\gamma)$, $^{36}\text{S}(^{14}\text{C},3\text{n}\gamma)$,... for experimental details. Spectra contaminated by ^{44}Ca gammas.

^{47}Sc Levels

E(level)	J^π [†]	$T_{1/2}$ [‡]
0.	$7/2^-$	
1146.99 4	$11/2^-$	>0.83 ps
(1878.2 [†] 7)	$9/2^-$	
2148.2 5		>4.2 ps
2641.9 5	$(13/2^-)$ [#]	0.32 ps 6
3302.5 10	$(17/2)$ [#]	0.07 ps 3
3867.0 11	$(19/2)$ [#]	0.21 ps 6

- [†] From the Adopted Levels, except as noted.
- [‡] From DSAM.
- [#] Speculated by 1986Wa19. Not adopted by the evaluator.

$\gamma(^{47}\text{Sc})$

Coincidences shown on the drawing are from the 1147+1154 and 1001 γ gates.

E_γ	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [‡]	δ [‡]
493.66 10	124 6	2641.9	$(13/2^-)$	2148.2		D(+Q)	0.00 6
564.46 30	254 18	3867.0	$(19/2)$	3302.5	$(17/2)$		
763.0 ^{#a}	<40	2641.9	$(13/2^-)$	1878.2?	$9/2^-$		
1001.2 [@] 5	7.0×10^2 [@] 7	2148.2		1146.99	$11/2^-$	Q&	
1146.974 40	882 18	1146.99	$11/2^-$	0.	$7/2^-$	Q(+O)	0.00 6
1154.3 9	412 25	3302.5	$(17/2)$	2148.2			
1494.9 ^{#a}	<145	2641.9	$(13/2^-)$	1146.99	$11/2^-$		

- [†] Relative photon intensity. Renormalized by the evaluator.
- [‡] From $\gamma(\theta)$. δ given for J^π from the Adopted Levels.
- [#] Calculated from decay scheme. Not observed.
- [@] From $\gamma\gamma$ -coin; obscured by ^{44}Ca 1002 γ in singles.
- & If ^{44}Ca 1002 γ is pure E2.
- ^a Placement of transition in the level scheme is uncertain.

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Level Scheme

Intensities: Relative I_γ

Legend

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

