^{9}Be(^{48}Ca,Xγ): E=60.3 MeV/A 2003Do10

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. W. Burrows	NDS 109, 171 (2008)	30-Oct-2007

Fragments detected by the SPEG spectrometer At GANIL; ionization and drift chambers and a plastic scintillator In the SPEG focal plane provided measurement of ΔE, E, and tof for fragment identification. Measured Eγ, Iγ, and $\gamma\gamma$- and (particle)-γ coin, and $\gamma(\theta)$ using 74 BaF_2 crystals and 3 segmented Ge clover detectors.

^{45}Ar Levels

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$	Comments
0	7/2$^-$		J$^\pi$: from comparison of branching ratios and log *ft*'s for the decay of ^{43}Ar and ^{45}Ar and shell model predictions.
537 *6*	3/2$^-$[#]	0.34 ns *+32−15*	$T_{1/2}$: from line-shape analysis.
1352 *16*	(5/2 to 11/2$^-$)[#]		
1765 *10*	(1/2,3/2$^-$)[#]		
1914 *6*	7/2,11/2$^-$[#]		

[†] From least-squares fit to Eγ's (evaluator).
[‡] 2003Do10 consider all J$^\pi$ assignments As tentative since J$^\pi$(g.s.) is tentative. Not adopted by the evaluator.
[#] J$^\pi$(537,1914)=3/2,7/2,11/2$^-$ from D,E2 or D,Q γ's. Since the 1352 and 1914 γ's were not observed In ^{45}Cl β^- decay, 2003Do10 suggest that the 1352 and 1914 states have a higher spin than the 537 and 1228 states. Therefore, 2003Do10 exclude J(1914)=3/2 and J(537)=7/2 or 11/2. Evaluator's note: 1352 keV *16* γ could Be the same As the 1339.9 keV *8* γ In ^{45}Cl β^- decay.

$\gamma(^{45}$Ar)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.	Comments
537 *6*	75	537	3/2$^-$	0	7/2$^-$	D,E2	Mult.: ΔJ=0 D or ΔJ=2 Q from anisotropy ratio=1.4 *4*. ≠ M2 from comparison to RUL (evaluator).
1228 *8*	25	1765	(1/2,3/2$^-$)	537	3/2$^-$		
1352 *16*	25	1352	(5/2 to 11/2$^-$)	0	7/2$^-$		
1914 *6*	100	1914	7/2,11/2$^-$	0	7/2$^-$	D,Q	Mult.: ΔJ=0 D or ΔJ=2 Q from anisotropy ratio=1.0 *3*.

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Level Scheme

Intensities: Relative I_γ

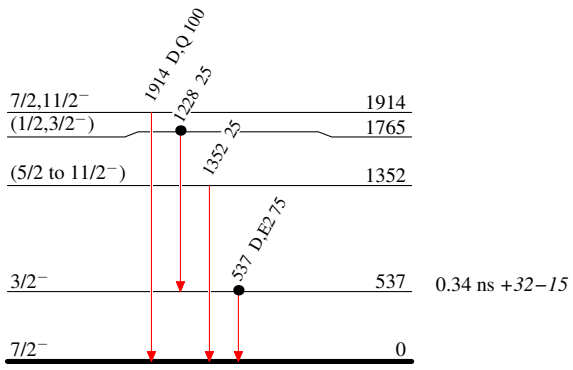
Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$

Coincidence



$^{45}_{18}Ar_{27}$