^{40}Ca(^{9}Be,2pnγ) 1981Po07

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 91, 1 (2000)	15-Jul-2000

Additional information 1.
E=20-45 MeV.
Measured Eγ, Iγ, $\gamma\gamma$ coin, $\gamma(\theta)$, $\gamma\gamma(\theta)$, $T_{1/2}$ from DSAM and recoil-distance measurements.
Data from ^{35}Cl(^{16}O,αpγ) included in results.

^{46}Ti Levels

E(level)†	Jπ‡	$T_{1/2}$#	E(level)†	Jπ‡	$T_{1/2}$#	E(level)†	Jπ‡	$T_{1/2}$#
0.0@	0^+		3852.47& *17*	5^-	4.9 ps *10*	6831.0& *7*	9^-	
889.31@ *10*	2^+		4417.7 *6*			7941.7@ *4*	11^+	<0.07 ps
2009.72@ *15*	4^+		4662.27& *20*	6^-		7960.7& *11*	10^-	
3058.35& *16*	3^-		4896.7@ *3*	8^+	0.6 ps *2*	8217.0@ *4*	12^+	0.35 ps *9*
3298.84@ *18*	6^+		5197.59& *19*	7^-		10039.1 *21*	12^+	
3441.46& *18*	4^-	68 ps *4*	6150.2& *6*	8^-				
3826.36 *19*			6241.8@ *3*	10^+	0.9 ps *2*			

† Deduced by evaluator from a least-square fit.
‡ Based on analysis of $\gamma(\theta)$.
# From analysis of γ DSAM or γ RDM.
@ Band(A): $K^\pi=0^+$ g.s. band.
& Band(B): $K^\pi=3^-$ band.

γ(^{46}Ti)

E_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.†	α‡	Comments
275.3 *1*	8217.0	12^+	7941.7	11^+	M1	0.00154	
383.1 *1*	3441.46	4^-	3058.35	3^-			
768.0 *1*	3826.36		3058.35	3^-			
794.2 *1*	3852.47	5^-	3058.35	3^-			
809.7 *3*	4662.27	6^-	3852.47	5^-			
889.3 *1*	889.31	2^+	0.0	0^+	E2	0.00017	
976.2 *5*	4417.7		3441.46	4^-			
1048.7 *1*	3058.35	3^-	2009.72	4^+			
1120.4 *1*	2009.72	4^+	889.31	2^+	E2		
1220.8 *1*	4662.27	6^-	3441.46	4^-			
1289.1 *1*	3298.84	6^+	2009.72	4^+	E2		
1345.1 *1*	5197.59	7^-	3852.47	5^-			E_γ: doublet separation 0.8 *8*.
1345.1 *1*	6241.8	10^+	4896.7	8^+	E2		E_γ: doublet separation 0.8 *8*.
1431.8 *2*	3441.46	4^-	2009.72	4^+			
1487.9 *5*	6150.2	8^-	4662.27	6^-			
1597.8 *2*	4896.7	8^+	3298.84	6^+	E2		
1633.4 *6*	6831.0	9^-	5197.59	7^-			
1699.6 *5*	7941.7	11^+	6241.8	10^+	M1		
1810.5 *9*	7960.7	10^-	6150.2	8^-			
1822 *2*	10039.1	12^+	8217.0	12^+			
1842.6 *1*	3852.47	5^-	2009.72	4^+			
1975.3 *3*	8217.0	12^+	6241.8	10^+	E2		

Continued on next page (footnotes at end of table)

^{40}Ca(^{9}Be,2pnγ) 1981Po07 (continued)

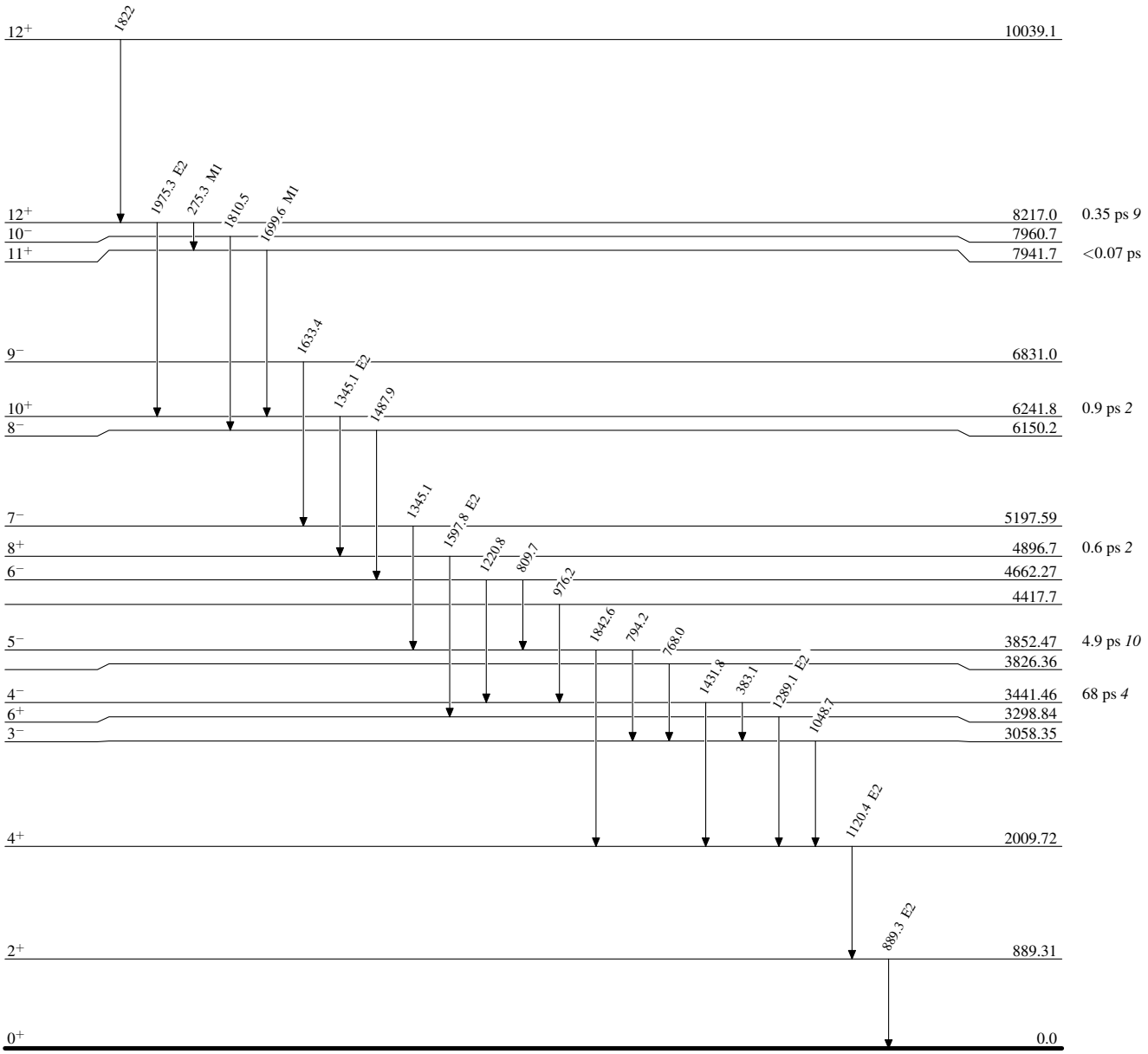
$\gamma(^{46}Ti)$ (continued)

† Based on analysis of $\gamma(\theta)$.

‡ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

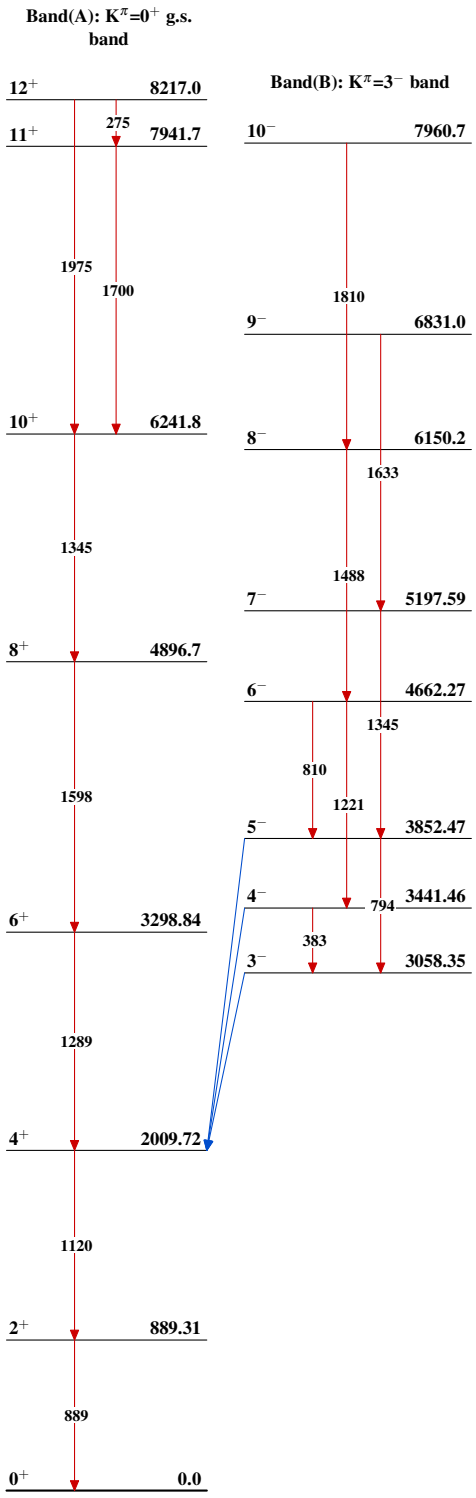
^{40}Ca(^{9}Be,2pnγ) 1981Po07

Level Scheme



$^{46}_{22}Ti_{24}$

^{40}Ca(^{9}Be,2pnγ) 1981Po07



$^{46}_{22}Ti_{24}$