^{130}Te(^{48}Ca,2nγ) 2001Ch89

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 107, 791 (2006)	15-Sep-2005

Target: ^{130}Te. Projectile: ^{48}Ca, E= 195 MeV. Detector: GAMMASPHERE (98 Compton-suppressed HPGe and 3 planar LEPS detector). Measured: Eγ, $\gamma\gamma$ coin, Branching from $K^{\pi}=22^{-}$ isomer, deduced level scheme.

^{176}Hf Levels

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$[‡]	Comments
2865[#]	14^{-}	401 μs *6*	Additional information 1.
3079.1[@] *10*	15^{+}		
3159.9[#] *8*	15^{-}		
3265.3[&] *13*	16^{+}		
3466.9[#] *8*	16^{-}		
3539.3[&] *14*	17^{+}		
3786.9[#] *9*	17^{-}		
3846.3[&] *14*	18^{+}		
4119.9[#] *10*	18^{-}		
4178.3[&] *15*	19^{+}		
4375.4[a] *14*	19^{+}	34 ns	
4465.9[#] *11*	19^{-}		
4531.3[&] *18*	20^{+}		
4765.5[b] *14*	20^{-}		
4825.8[#] *12*	20^{-}		
4862.7[c] *13*	22^{-}	43 μs	

[†] From a least-square-fit to γ-ray energies assuming ΔE=1 keV for all γ-rays.
[‡] From Adopted Levels.
[#] $K^{\pi}=14^{-}$ band.
[@] $K^{\pi}=15^{+}$ band.
[&] $K^{\pi}=16^{+}$ band.
[a] $K^{\pi}=19^{+}$ band.
[b] $K^{\pi}=20^{-}$ band.
[c] $K^{\pi}=22^{-}$ band.

γ(^{176}Hf)

E_i(level)	J_i^{π}	Eγ	E_f	J_f^{π}	E_i(level)	J_i^{π}	Eγ	E_f	J_f^{π}
3079.1	15^{+}	214	2865	14^{-}	4119.9	18^{-}	653	3466.9	16^{-}
3159.9	15^{-}	295	2865	14^{-}	4178.3	19^{+}	332	3846.3	18^{+}
3265.3	16^{+}	186	3079.1	15^{+}			639	3539.3	17^{+}
3466.9	16^{-}	307	3159.9	15^{-}	4375.4	19^{+}	529	3846.3	18^{+}
		602	2865	14^{-}			836	3539.3	17^{+}
3539.3	17^{+}	274	3265.3	16^{+}	4465.9	19^{-}	346	4119.9	18^{-}
3786.9	17^{-}	320	3466.9	16^{-}			679	3786.9	17^{-}
		627	3159.9	15^{-}	4531.3	20^{+}	353	4178.3	19^{+}
3846.3	18^{+}	307	3539.3	17^{+}	4765.5	20^{-}	390	4375.4	19^{+}
		581	3265.3	16^{+}	4825.8	20^{-}	360	4465.9	19^{-}
4119.9	18^{-}	333	3786.9	17^{-}			706	4119.9	18^{-}

Continued on next page (footnotes at end of table)

^{130}Te(^{48}Ca,2nγ) 2001Ch89 (continued)

$\gamma(^{176}Hf)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Comments
4862.7	22^-	37	100	4825.8	20^-	I_γ: 25 in 2001Ch89. Iγ=100 from a private communication with the Author.
		97	25	4765.5	20^-	I_γ: 100 in 2001Ch89. Iγ=25 from a private communication with the Author.

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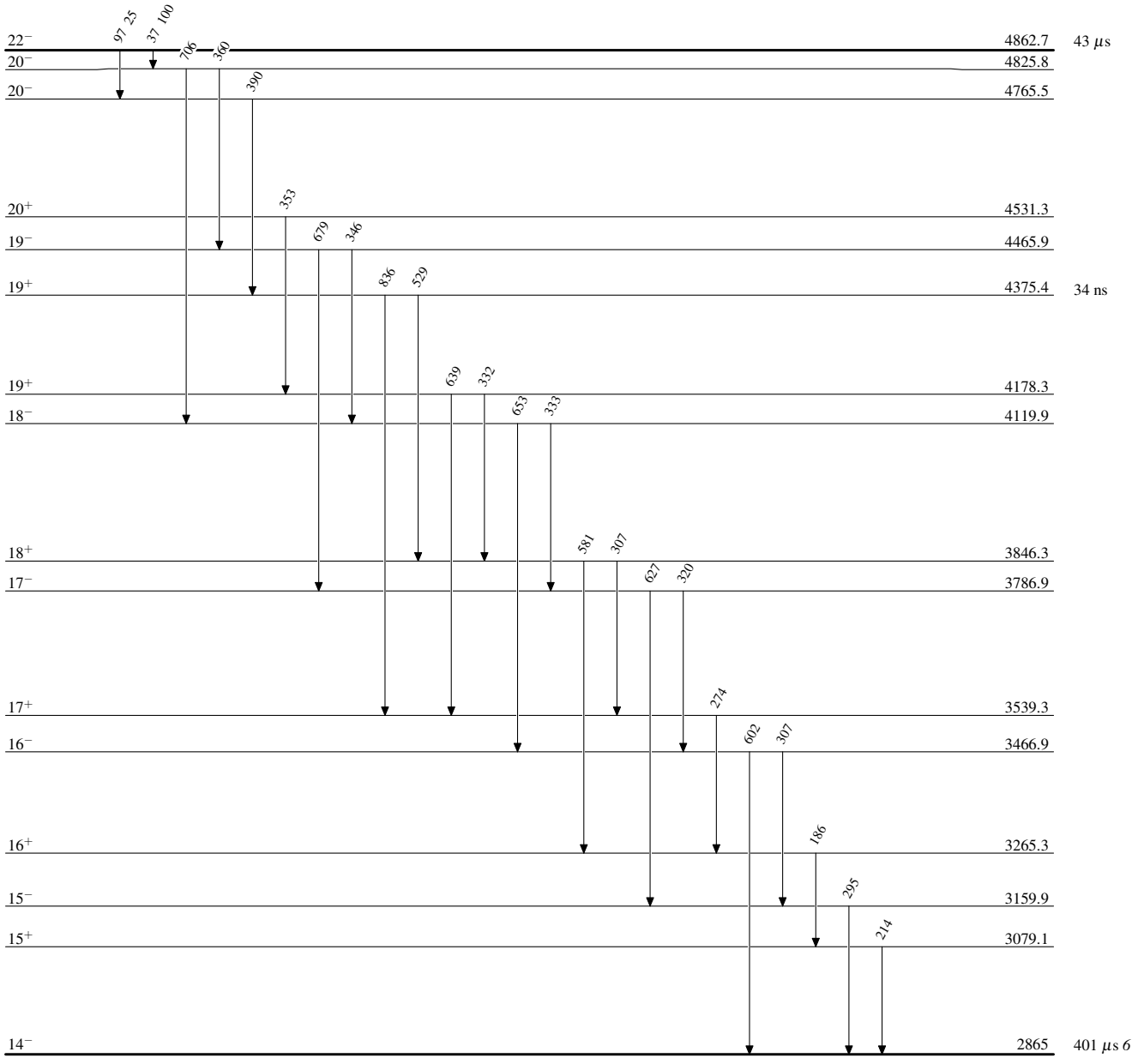
Level Scheme

Intensities: Relative photon branching from each level



$^{176}_{72}Hf_{104}$