^{181}Ta(γ,γ') 1998Wo06,1981Sc10

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 106, 367 (2005)	31-Aug-2005

1998Wo06:^{181}Ta(γ,γ'), E=2.7, 4.1 MeV bremsstrahlung; measured Eγ, Iγ; deduced B(E1), B(M1), gΓ_0.
1981Sc10:^{181}Ta(γ,γ'), E=2.599-3.452 MeV; E=6.418-7.16 MeV; measured Eγ, Iγ, $\sigma(\theta)$.

^{181}Ta Levels

E(level)[†]	gΓ_0 (eV)[@]	Comments
0.0		
6[‡]		
136[‡]		
1866	4.9×10^{-3} *8*	
1935	4.1×10^{-3} *6*	
2097	2.5×10^{-3} *6*	
2105	4.2×10^{-3} *8*	
2240	2.8×10^{-3} *6*	
2253	3.8×10^{-3} *7*	
2272	4.9×10^{-3} *8*	
2289	4.4×10^{-3} *8*	
2297	3.9×10^{-2} *4*	
2400	7.7×10^{-3} *12*	
2418	5.3×10^{-3} *10*	
2448	1.20×10^{-2} *15*	
2519	4.0×10^{-3} *7*	
2761	3.3×10^{-3} *7*	
2800	2.2×10^{-3} *6*	
2807	7.7×10^{-3} *11*	
2812	6.3×10^{-3} *10*	
2835	5.2×10^{-3} *9*	
2845	3.3×10^{-3} *7*	
2892	3.7×10^{-3} *8*	
2898	6.9×10^{-3} *10*	
2929	3.4×10^{-3} *8*	
2967	6.9×10^{-3} *10*	
3010[#]	5.90×10^{-4}[&]	W(θ)γ $\Gamma_0^2/\Gamma=0.42\times10^{-3}$ eV, $\Gamma_0/\Gamma\leq0.72$ (1981Sc10).
3016	3.2×10^{-3} *7*	
3023	1.11×10^{-2} *13*	
3029	9.7×10^{-3} *12*	
3035	1.38×10^{-2} *16*	
3054	6.6×10^{-3} *11*	
3065	7.0×10^{-3} *10*	
3074	8.5×10^{-3} *14*	
3081	2.22×10^{-2} *24*	
3086	5.9×10^{-3} *9*	
3092	3.6×10^{-3} *8*	
3108	1.22×10^{-2} *16*	
3320	8.6×10^{-3} *13*	
3329	9.1×10^{-3} *13*	
3407	6.4×10^{-3} *11*	

Continued on next page (footnotes at end of table)

^{181}Ta(γ,γ') 1998Wo06,1981Sc10 (continued)

^{181}Ta Levels (continued)

E(level)[†]	gΓ$_0$ (eV)[@]	Comments
6418[#]	2.70×10^{-4}[&]	W(θ)γ Γ_0^2/Γ=0.20×10^{-3} eV, $\Gamma_0/\Gamma\leq0.73$ (1981Sc10).
6759[#]	1.8×10^{-5}[&]	W(θ)γ Γ_0^2/Γ=0.018×10^{-3} eV, Γ_0/Γ assumed to be 1 (1981Sc10).

[†] From 1998Wo06, except as noted.
[‡] From Adopted Levels, rounded to the nearest keV.
[#] From 1981Sc10.
[@] From 1998Wo06, except those noted. $\Gamma_0=\Gamma$ assumed where no decay branching was detected.
[&] From W(θ)γ Γ_0^2/Γ with angular correlation function W(θ)γ assumed to be 1(1981Sc10).

γ(^{181}Ta)

E$_\gamma$[†]	I$_\gamma$[†]	E$_i$(level)	E$_f$	E$_\gamma$[†]	I$_\gamma$[†]	E$_i$(level)	E$_f$	E$_\gamma$[†]	I$_\gamma$[†]	E$_i$(level)	E$_f$
1866	5.4 *9*	1866	0.0	2519	2.4 *4*	2519	0.0	3048	1.5 *5*	3054	6
1935	4.2 *6*	1935	0.0	2761	1.6 *4*	2761	0.0	3054	1.2 *3*	3054	0.0
2097	2.2 *5*	2097	0.0	2800	1.1 *3*	2800	0.0	3065	2.9 *4*	3065	0.0
2105	3.7 *7*	2105	0.0	2807	3.8 *5*	2807	0.0	3074	1.4 *3*	3074	0.0
2161	4.7 *8*	2297	136	2812	3.1 *5*	2812	0.0	3081	9.0 *10*	3081	0.0
2240	2.2 *5*	2240	0.0	2835	2.5 *4*	2835	0.0	3086	2.4 *4*	3086	0.0
2253	2.9 *5*	2253	0.0	2845	1.6 *4*	2845	0.0	3092	1.5 *3*	3092	0.0
2264	2.7 *8*	2400	136	2892	1.7 *4*	2892	0.0	3102	2.3 *5*	3108	6
2272	3.6 *6*	2272	0.0	2898	3.1 *5*	2898	0.0	3108	2.6 *4*	3108	0.0
2289	3.3 *6*	2289	0.0	2929	1.5 *3*	2929	0.0	3320	3.0 *4*	3320	0.0
2297	23.7 *25*	2297	0.0	2938	2.0 *6*	3074	136	3329	3.2 *5*	3329	0.0
2312	2.2 *5*	2448	136	2967	3.0 *4*	2967	0.0	3407	2.1 *4*	3407	0.0
2400	2.4 *5*	2400	0.0	3016	1.3 *3*	3016	0.0	6281[‡]	37[‡] *8*	6418	136
2412	1.4 *5*	2418	6	3023	4.7 *6*	3023	0.0	6418[‡]	100[‡]	6418	0.0
2418	2.1 *4*	2418	0.0	3029	4.1 *5*	3029	0.0				
2448	5.5 *7*	2448	0.0	3035	5.8 *7*	3035	0.0				

[†] From 1998Wo06, except as noted.
[‡] From 1981Sc10.

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Level Scheme

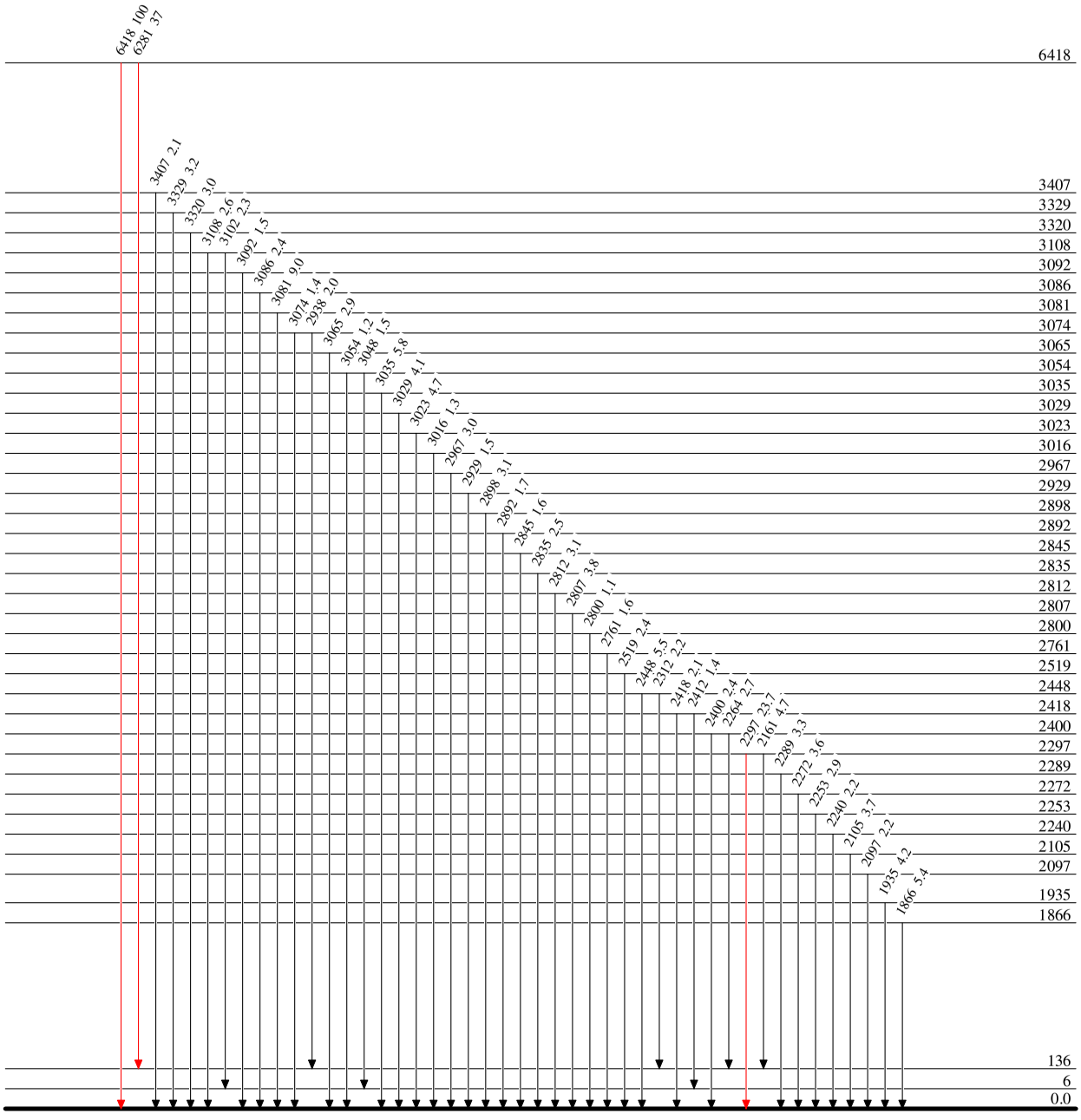
Intensities: Type not specified

Legend

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

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

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



$^{181}_{73}Ta_{108}$