^{130}Te(^{64}Ni,Xγ) 1998Zh09

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	H. Iimura, J. Katakura, S. Ohya	NDS 180, 1 (2022)	1-Oct-2021

1998Zh09: ^{130}Te+^{64}Ni E=275 MeV; enriched target (88%), 1.2 mg/cm^2 thick; multidetector array; γ, γγ, γγ(θ), γγ(t).
Isotopic identification: γ's gated with γ from ^{68}Ni excited state.
The level scheme is proposed by 1998ZH09. Evaluators have modified the level scheme. The 571.8-keV γ was placed by the authors as feeding the 2497.01-keV leve. Evaluators have placed the γ to feed the 3193.61-keV level to accommodate γγ results from ^{124}Sn(^{7}Li,p4nγ) and ^{238}U(^{12}C,Fγ).

^{126}Te Levels

E(level)†	J$^\pi$‡	T$_{1/2}$	Comments
0.0	0$^+$		
666.3	2$^+$		
1361.4	4$^+$		
1420.1	2$^+$		
1776.3	6$^+$		
2218.1	5$^-$		
2496.9	7$^-$		
2766.1	8$^+$		
2975.0	10$^+$	10.0 ns *5*	T$_{1/2}$: from γ(t).
3193.9	9$^-$		
3688.5	12$^+$		
3765.6	11$^-$		
4538.8	(14$^+$)		

† Round off values fro Adopted Levels.
‡ From Adopted Levels.

γ(^{126}Te)

E$_\gamma$	I$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
208.7 *1*	15 *2*	2975.0	10$^+$	2766.1	8$^+$	
414.9 *1*	79 *8*	1776.3	6$^+$	1361.4	4$^+$	
571.8 *1*	17 *2*	3765.6	11$^-$	3193.9	9$^-$	E$_\gamma$: Placed feeding the 3068.81-keV level (1998ZH09).
666.4 *1*	105 *11*	666.3	2$^+$	0.0	0$^+$	
695.0 *1*	100 *10*	1361.4	4$^+$	666.3	2$^+$	
696.6 *1*	10 *1*	3193.9	9$^-$	2496.9	7$^-$	I$_\gamma$: Intensity is weaker than that of the incoming 571.8-keV γ. It may be affected by the strong 695.0-kev γ. (evaluators).
713.5 *1*	22 *2*	3688.5	12$^+$	2975.0	10$^+$	
720.7 *1*	29 *3*	2496.9	7$^-$	1776.3	6$^+$	
753.5 *1*	6.0 *6*	1420.1	2$^+$	666.3	2$^+$	
850.3 *1*	7.0 *7*	4538.8	(14$^+$)	3688.5	12$^+$	
857.7 *1*	21 *2*	2218.1	5$^-$	1361.4	4$^+$	
989.6 *1*	23 *2*	2766.1	8$^+$	1776.3	6$^+$	

† From authors' statement that the estimated intensity error is less than 10%.

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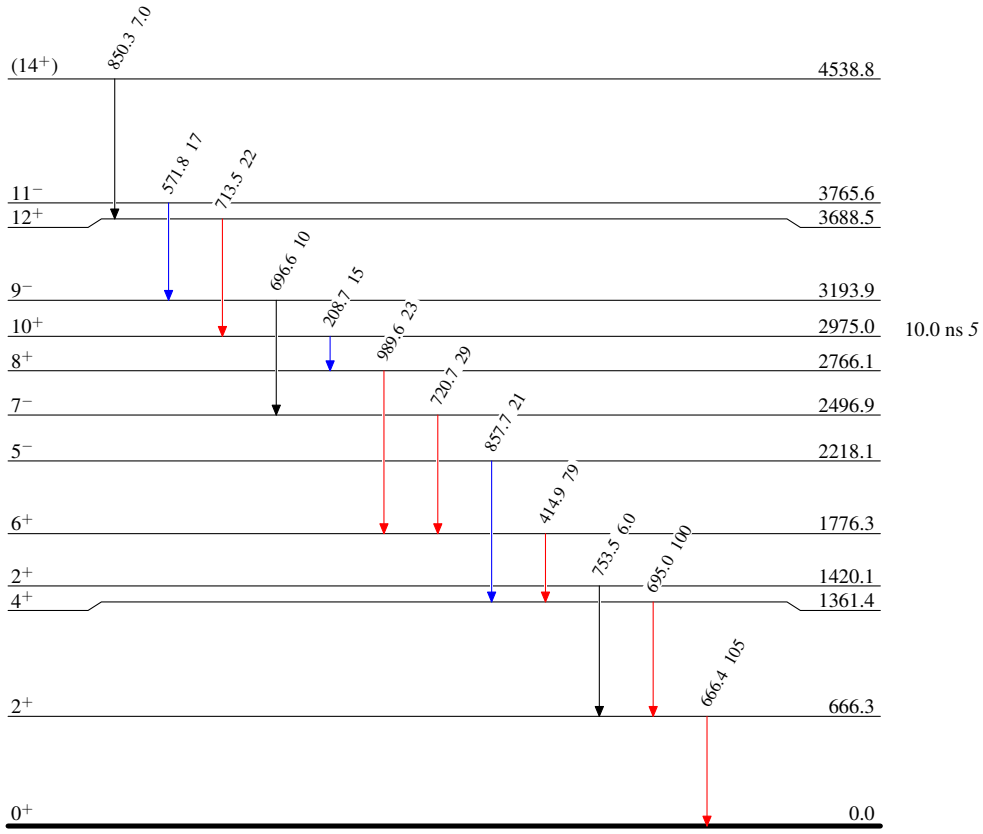
Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$

Level Scheme

Intensities: Relative I_γ



$^{126}_{52}Te_{74}$