^{124}Te(γ,γ),(γ,γ′) 1995Ge06,1968Sc13

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. Katakura, Z. D. Wu	NDS 109, 1655 (2008)	1-Apr-2008

1995Ge06,1995Ge02: enriched target (90.7%), HPGe.
1968Sc13: rotating source, rotating scatterer, ^{124}Sb source, NaI(Tl).

^{124}Te Levels

E(level)[†]	Jπ[#]	$T_{1/2}$[‡]	$gW\Gamma_0^2/\Gamma$ (eV)[@]	Comments
0.0	0^+			
602.72	2^+	4.5 ps *5*		$T_{1/2}$: weighted average of 4.0 ps *10* $SbCl_3$ source (1961Ak02), 4.6 ps *8* SbH_3 source (1963Zi02), 3.1 ps *23* self-absorption (1963Zi02), 4.8 ps *6* $^{124}SbI_3$ source (1968Sc13).
2747.0 *1*	$1^{(-)}$	27 fs *3*	0.041 *4*	
2783.3 *4*	$1^+,2^+$		0.0058 *12*	$T_{1/2}$=0.23 ps *7* if J=1, $T_{1/2}$=0.21 ps *7* if J=2.
2884.2 *6*	$1,2^+$		0.0056 *20*	$T_{1/2}$=0.25 ps *9* if J=1, $T_{1/2}$=0.23 ps *8* if J=2.
2897.3 *5*	$1,2^+$		0.0057 *21*	$T_{1/2}$=0.25 ps *9* if J=1, $T_{1/2}$=0.22 ps *8* if J=2.
2975.6 *3*	1	65 fs *9*	0.021 *2*	$T_{1/2}$: 60 fs *8* if J=2.
3091.5 *1*	$1,2^+$		0.071 *4*	$T_{1/2}$=10.1 fs *14* if J=1.
3221.4 *4*	2^+	0.12 ps *3*	0.010 *3*	$T_{1/2}$=0.13 ps *4* if J=1.
3239.1 *4*	$1,2^+$		0.0083 *20*	$T_{1/2}$=57 fs *23* if J=1, $T_{1/2}$=52 fs *21* if J=2.
3302.0 *5*	$1,2^+$		0.0046 *21*	$T_{1/2}$=0.30 ps *14* if J=1, $T_{1/2}$=0.28 ps *13* if J=2.
3542.8 *2*	$1^-,2^+$		0.020 *3*	$T_{1/2}$=33 fs *5* if J=1, $T_{1/2}$=30 fs *5* if J=2.
3655.6 *3*	2^+	39 fs *9*	0.014 *3*	$T_{1/2}$=42 fs *10* if J=1.
4088.7 *3*	$1,2^+$		0.039 *8*	$T_{1/2}$=35 fs *7* if J=1, $T_{1/2}$=32 fs *6* if J=2.
4118.0 *4*	$1,2^+$		0.035 *8*	$T_{1/2}$=38 fs *9* if J=1, $T_{1/2}$=35 fs *5* if J=2.
4583.7 *6*	$1,2^+$		0.076 *25*	$T_{1/2}$=18 fs *5* if J=1, $T_{1/2}$=16 fs *5* if J=2.

[†] From 1995Ge06.
[‡] Calculated from $gW\Gamma_0^2/\Gamma$. Others: 1961Ak02, 1963Zi02, 1965Ak01.
[#] From Adopted Levels. Dipole transitions are more likely in case of strongly populated levels.
[@] $g=(2J_i+1)/(2J_0+1)$ is a statistical spin weighting factor with J_0 and J_i the spins of the g.s. and the excited state. W is a factor showing angle dependence.

γ(^{124}Te)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π
2144.3	21 *6*	2747.0	$1^{(-)}$	602.72	2^+	3092.5	100	3091.5	$1,2^+$	0.0	0^+
2491.6	39 *2*	3091.5	$1,2^+$	602.72	2^+	3221.0		3221.4	2^+	0.0	0^+
2635.7	181 *45*	3239.1	$1,2^+$	602.72	2^+	3239.4	100	3239.1	$1,2^+$	0.0	0^+
2747.0	100	2747.0	$1^{(-)}$	0.0	0^+	3302.0		3302.0	$1,2^+$	0.0	0^+
2783.5		2783.3	$1^+,2^+$	0.0	0^+	3543.4	100	3542.8	$1^-,2^+$	0.0	0^+
2884.2		2884.2	$1,2^+$	0.0	0^+	3655.6	100	3655.6	2^+	0.0	0^+
2897.3		2897.3	$1,2^+$	0.0	0^+	4088.7		4088.7	$1,2^+$	0.0	0^+
2940.5	92 *14*	3542.8	$1^-,2^+$	602.72	2^+	4118.0		4118.0	$1,2^+$	0.0	0^+
2974.8		2975.6	1	0.0	0^+	4583.7		4583.7	$1,2^+$	0.0	0^+
3052.9	110 *19*	3655.6	2^+	602.72	2^+						

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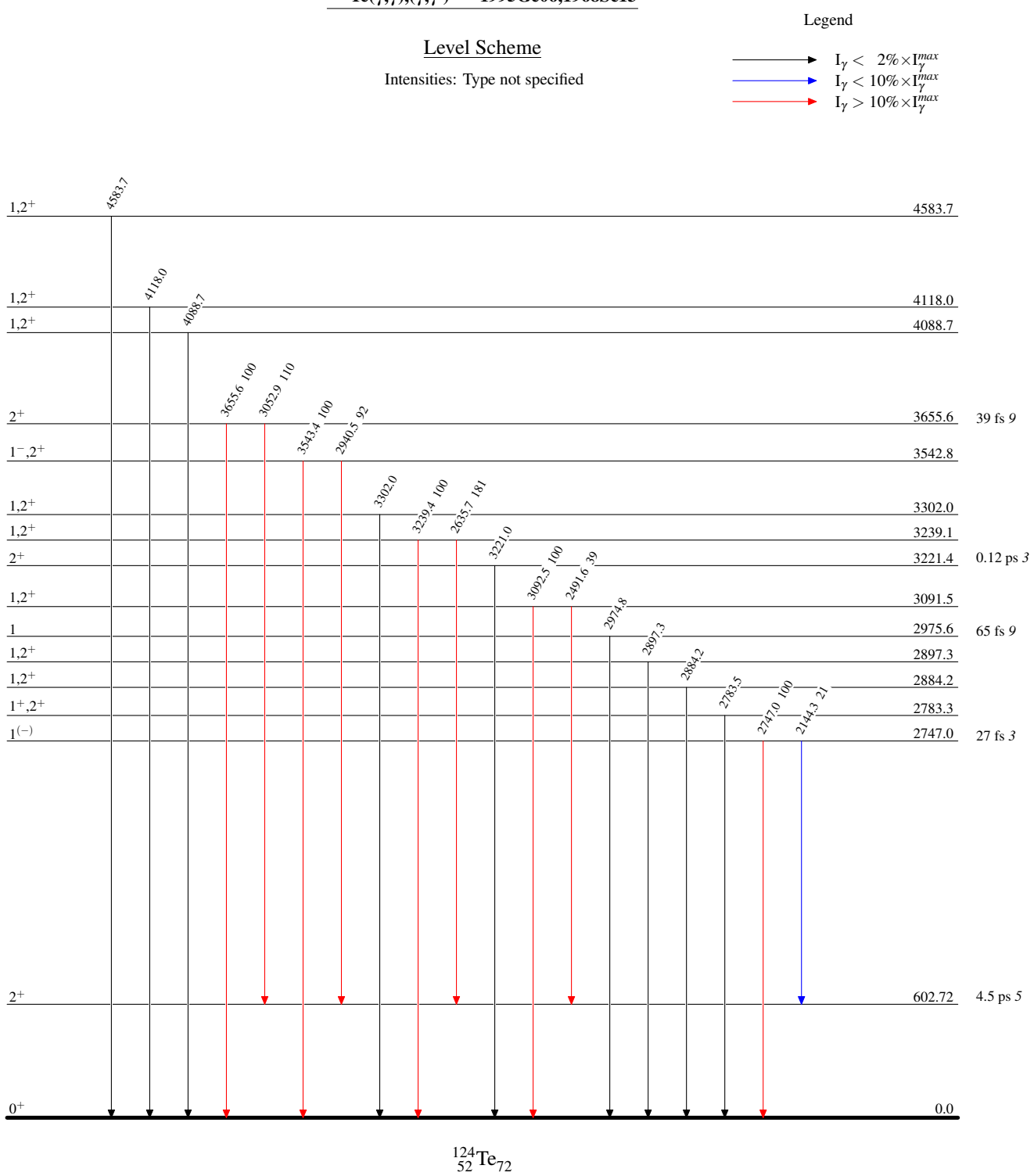
Level Scheme

Intensities: Type not specified



$^{124}_{52}Te_{72}$