

$^{203}\text{Tl}(\mu, \text{xn}\gamma)$ 1972Ba53

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 192,1 (2023)	1-Aug-2023

Beam: stopped μ beam with 5×10^4 muons/sec intensity delivered by CERN muon channel; Target: natural thallium (29.5% ^{203}Tl);
 Detectors: bending magnet, four quadruple lenses; three plastic scintillator detectors and three Pb shielded Ge(Li) detectors;
 Measured: E_γ , I_γ .

 ^{200}Hg Levels

$E(\text{level})^\dagger$	J^π^\ddagger
0.0	0^+
368.07 19	2^+
947.4 4	4^+
1572.7 5	2^+
1706.0 6	6^+
1851.7 7	5^-

† From a least-squares fit to E_γ .

‡ From Adopted Levels.

 $\gamma(^{200}\text{Hg})$

E_γ^\dagger	I_γ^\dagger	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ^\dagger	I_γ^\dagger	$E_i(\text{level})$
368.07 19	4.3 8	368.07	2^+	0.0	0^+	$^x1391.3^\ddagger$ 4	0.68 17	
579.3 3	1.8 4	947.4	4^+	368.07	2^+	$^x1597.9^\#$ 5	0.62 17	
$^x691.71^\ddagger$ 17	7.6 9					$^x1606.3^\#$ 8	0.54 20	
758.6 4	0.52 14	1706.0	6^+	947.4	4^+	$^x1722.8^\#$ 7	0.34 12	
904.3 5	0.52 14	1851.7	5^-	947.4	4^+	$^x1744.1^\#$ 7	0.30 12	
$^x960.2^\ddagger$ 4	0.55 14					$^x1975.9^\#$ 9	0.21 9	
1204.6 4	0.52 14	1572.7	2^+	368.07	2^+			

† From 1972Ba53, but the γ -rays were not placed in the level scheme. The decay scheme is proposed by the evaluator.

‡ Assigned by the evaluators to ^{202}Hg and ^{204}Hg .

$^\#$ Probably misassigned to ^{200}Hg .

x γ ray not placed in level scheme.

$^{203}\text{Tl}(\mu, xn\gamma)$ **1972Ba53**Level SchemeIntensities: Relative I_γ

Legend

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

