

$^{198}\text{Hg}(\gamma,\gamma)$ : res fluorescence **1955Me41**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong and Kang Mengxiao		NDS 133, 221 (2016)	1-Dec-2015

Measured angular distribution of resonance scattered  $\gamma$ 's from 411.8 level by using thermal Doppler-broadening method at an average temperature of 1125°C.

Others: [1953Ma27](#), [1958Kn53](#).

 $^{198}\text{Hg}$  Levels

All data are from [1955Me41](#), except as noted.

E(level)	$J^\pi$	$T_{1/2}$	Comments
0.0	$0^+$		
411.8	$2^+$	22 ps <i>I</i>	$T_{1/2}$ : From <a href="#">1974Bu13</a> (self-comparison method, sources: $^{198}\text{Au}$ ). Others: 22 ps 5 ( <a href="#">1953Da23</a> ), 22 ps 2 ( <a href="#">1954Me55</a> ), and 34 ps 2 ( <a href="#">1963Fr05</a> ). $J^\pi$ : $\gamma\gamma(\theta)$ : $A_2=+0.37\ 6$ , $A_4=+1.07\ 8$ ( <a href="#">1955Me41</a> ) fits 0(E2)2(E2)0 sequence. Cross-section ratio (120°/160°)=0.37 5 ( <a href="#">1963Fr05</a> ) is compatible with $\gamma\gamma(\theta)$ ( <a href="#">1955Me41</a> ).

 $\gamma(^{198}\text{Hg})$ 

All data are from [1955Me41](#), except as noted.

$E_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult.	$\alpha^\ddagger$	Comments
411.8	411.8	$2^+$	0.0	$0^+$	E2 <sup>†</sup>	0.0443	$\alpha(\text{K})=0.0301$ ; $\alpha(\text{L})=0.01068$ ; $\alpha(\text{M})=0.00266$ ; $\alpha(\text{N}+..)=0.00083$

<sup>†</sup> From Adopted Gamma radiations.

<sup>‡</sup> Total theoretical internal conversion coefficients, calculated using the BrIcc code ([2008Ki07](#)) with Frozen orbital approximation based on  $\gamma$ -ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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Level Scheme