
 $^{197}\text{Au}({}^3\text{He},\alpha),(\alpha,\alpha n),(\text{p,pn})$ [1991Jo01](#),[1990Na01](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong	NDS 108, 1093 (2007)	1-Jan-2006

$J^\pi(^{197}\text{Au g.s.})=3/2^+$.

[1991Jo01](#): $E({}^3\text{He})=33$ MeV. Measured $d\sigma/d\Omega$ at 35° . Q3D spectrograph. FWHM=6.7 keV. From $U(\nu)(6/12)*U(\pi)(6/4)$ supersymmetry, the negative-parity levels excited by $L=6$ transfer dominate in $({}^3\text{He},\alpha)$.

[1990Na01](#): $E({}^3\text{He})\leq 40$ MeV, $E(\text{p})\leq 50$ MeV. $E(\alpha)\leq 40$ MeV. Ge(Li) measured $\sigma(E)$, residual isomeric yield ratio, deduced reaction mechanism.

 ^{196}Au Levels

<u>E(level)[†]</u>	<u>I(rel)(%)[‡]</u>	<u>E(level)[†]</u>	<u>I(rel)(%)[‡]</u>	<u>E(level)[†]</u>	<u>I(rel)(%)[‡]</u>	<u>E(level)[†]</u>	<u>I(rel)(%)[‡]</u>
0.0	4 1	346 3	7 2	581 5	51 5	923 3	5 2
85 2	48 3	365 2	18 2	591 2	20 4	971 2	22 3
163 2	15 2	418 1	100 5	644 2	11 2	990 4	5 2
210 2	9 2	489 3	8 3	798 3	4 2		
252 2	6 2	498 3	8 3	833 2	17 3		
306 3	3 1	517 3	2 1	872 2	11 2		

[†] From [1991Jo01](#).

[‡] Relative intensities at 35° .