^{197}Au(d,^{3}He) 1987La07,1985Bl02,1981Ve18

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

Target $J^{\pi}=3/2^{+}$.

E=108.4 MeV, measured σ(ex,θ); angular distributions from 3° to 17° in 2° steps; DWBA analysis; valence, inner-proton hole strength functions; core quasiparticle coupling model. Mag spect, FWHM≈140 keV. E=50 MeV with FWHM=25-30 keV for low-lying levels (1987La07).

E=50 MeV, measured g.s., 2+(1), and 2+(2) angular distributions, θ (C.M.) from 3° to 25°. Mag spect, FWHM≈25-30 keV. Coupled channels Born approximation calculations (1985Bl02).

E=108 MeV, measured $\sigma(\theta)$, data at 4° (lab). DWBA calculations. Mag spect, FWHM=130 keV. The strong excitation of the second 2^{+} level raises questions concerning the validity of the supersymmetry scheme at least for this level (1981Ve18).

See also 1981Ve03, 1981VeZY, 1983BlZQ, 1984LaZR, 1987LaZR from the same authors. See 1985Bl02 for spectroscopic factors.

Additional information 1.

^{196}Pt Levels

E(level)†	L†	S‡	Comments
0.0	2	0.29	S: C^2S=0.24.
356	2	0.21	S: C^2S=0.21.
689	2	0.17	S: C^2S=0.14. Breakdown of the selection rules of the supersymmetry scheme.
877			E(level): from 1981Ve18. S: $C^2S\leq0.04$.
1015			E(level): from 1981Ve18. S: $C^2S\leq0.04$.
1135			E(level): from 1981Ve18. S: $C^2S\leq0.02$.
1293	2		
1380	2+5		
1530	0+2+4		
1600	0+2		
1670	0+2		
1880	2+4		
1960	2+4		
2050	0+2		
2120	2		

† From 1987La07, except as noted.

‡ All transitions, except that corresponding to the 877 keV, 4^{+} level, are assumed to be L=2, d3/2. For a d5/2 transition the spectroscopic factor would be: C^2S(d5/2)=0.75 C^2S(d3/2) (1981Ve18). Renormalized by evaluators from 1981Ve18.