^{101}Ru(d,t)

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 172, 1 (2021)	31-Jan-2021

$J^\pi(^{101}\text{Ru g.s.})=5/2^+$.

Data are from Master's thesis by F.C. Sampaio, University of Sao Paulo (1981), as quoted in 2002Ho17 in their (d,p) work.

Deuteron beam was produced from the Sao Paulo Pelletron facility. Reaction products were momentum-analyzed with an Engel split-pole spectrograph (FWHM≈8 keV) and detected in nuclear emulsions. Measured $\sigma(\theta)$. Deduced levels, L-transfers, spectroscopic factors from DWBA analysis.

^{100}Ru Levels

E(level)	J^π	L†	S†	Comments
0	0^+	2	0.192 *6*	
538	2^+	2	0.193 *7*	
1128	0^+	2	0.064 *3*	
1224	4^+	2+4	0.0016,0.061	S: 0.0016 *5* for L=2; 0.061 *7* for L=4.
1359	2^+	0+2	0.0152,0.018	S: 0.0152 *9* for L=0; 0.018 *3* for L=2.
1840		(2)		
1863	2^+	2	0.055 *2*	
1878	3^+	0+2	0.020,0.068	S: 0.020 *2* for L=0; 0.068 *6* for L=2.
2048	$0^{(+)}$			L: low.
2062	4^+	2	0.0206 *1*	
2099				
2166	3^-			L: low.
2240				
2352				
2367				
2386				
2417				

† From comparison of experimental and DWBA calculations of $\sigma(\theta)$ distributions.