

¹⁰³Rh(p,t) 1975De19

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2006

$J^\pi(^{103}\text{Rh})=1/2^-$.

E=17, 30, 42 MeV, FWHM=10-12 keV at E=17 MeV, 10 keV at E=30 MeV with poorer resolution at 42 MeV.

Other: 1964Th05 E(p)=16.8– 17.5 MeV.

Q(p,t)=– 8275 17 (1964Th05).

¹⁰¹Rh Levels

(p,t) excitations up to 1057 keV ascribed to 2p1/2 proton weakly coupled to ¹⁰⁰Ru core states.

E(level) [†]	L [‡]	dσ/dΩ (20°)	Comments
0.0	0	437	
156 2		≈1	
305 2	2	21	J ^π : σ(355)/σ(305) suggests J(305)=3/2, J(355)=5/2.
354 2	2	32	
849 2	4	7.5	J ^π : σ(898)/σ(851) suggests J(851)=7/2, J(898)=9/2.
898 2	4	9.2	J ^π : see 849 level.
977 2		1.2	J=1/2 ⁻ predicted with weak-coupling model: 1975De19.
996 2	2	3.4	E(level): author's value of 966 in Table I is a misprint, see Fig.1. J ^π : σ(1058)/σ(996) suggests J(996)=3/2, J(1058)=5/2. J ^π : see 996 level.
1057 2	2	4.1	
1464 8	(6)	0.9	
1531 8	0	8.2	
1541 8	2	4.8	
1569 8		≈1	
1598 8		≈1	
1640 8		≈1	
1689 8		≈1	
1730 8		≈2	
1771 8	2	3.4	
1813 8		≈1	
1904 8	2	2.4	
1935 8	2	2.2	
1960 8	2	3.7	
1997 8	0	18	
2009 8	2	22	
2038 8		2.2	
2075 8		≈4	
2087 8	(4)	6.8	
2113 8	4	6.2	
2146 8	3,(4)	30	
2166 8	3,(4)	33	
2188 8	2	15	
2225 8	2	23	
2242 8	4	20	
2292 8	4	7.1	
2328 8	4	23	
2352 8			Doublet dσ/dΩ≈23 μb/sr.
2361 8			
2386 8	2	33	
2455 8		≈8	
2492 8	2	7.5	

Continued on next page (footnotes at end of table)

 $^{103}\text{Rh}(\text{p,t})$ **1975De19 (continued)** ^{101}Rh Levels (continued)

<u>E(level)[†]</u>	<u>L[‡]</u>	<u>dσ/dΩ (20°)</u>
2521 8	(4)	10
2577 8		≈6

[†] From E=30 MeV, some are from E=17 and 42 MeV.

[‡] Based on angular distributions at 5 angles compared with DWBA.