

$^{130}\text{Te}(\text{p,p}'),(\text{p,p}'\gamma)$ 1971Hi02,1970Bu01,1975Ma03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 93, 33 (2001)	11-May-2001

Include (p,p) and (pol p,p').

1971Hi02 (also 1970HiZZ,1970Hi05): (p,p') E=8-14 MeV. States in ^{130}Te studied via analog resonances by excitation functions and $\sigma(\theta)$ of selected proton groups.

1970Bu01: (p,p') E=10-11 MeV; (p,p'γ) E=7.8-12.7 MeV. States in ^{130}Te studied via analog resonances. Measured $\sigma(\theta)$, $E\gamma$.

1975Ma03 (also 1973Ma12,1973Ma29): E=51.9 MeV, measured $\sigma(\theta)$, FWHM=80 keV. DWBA analysis.

Others:

1984Fo10: (pol p,p'), (pol p,p) E=10.1-10.7 MeV. Measured $\sigma(\theta)$ and analyzing powers. Deduced IAR.

1984He01: (p,p'), (p,p) E=7.5-14 MeV. Measured $\sigma(\theta)$, deduced IAR.

1972Bb15: (p,p'), (p,p) E=9.7-10.5 MeV. Measured $\sigma(\theta)$, vector analyzing power.

1968Ma34: E=16 MeV, measured $\sigma(\theta)$, DWBA analysis for first 2^+ and 3^- states.

1965Co04: (p,p') E=11.09 MeV. Seven groups reported in ^{130}Te .

 ^{130}Te Levels

E(level) ^{†‡}	J ^π #	L ^{&}	β_L ^{&}	Comments
0	0 ⁺			
840@ 1		2	0.114 9	β_2 : other: 0.117 7 (1968Ma34).
1589@ 2				
1634@ 2				
1815@ 3				
1885@ 3				
1983@ 3		4	0.062 4	
2100@ 4		5	0.045 3	
2147 10				
2191@ 4				
2287 10				
2300& 20				
2335 10				
2418 10	(1 ⁺ ,2 ⁺)			
2451 10				
2470 20	(1 ⁺ ,2 ⁺)			
2526 20				
2580 20	(1 ⁺ ,2 ⁺)			
2611 20	(1 ⁺ ,2 ⁺)			
2692 20	(1 ⁺ ,2 ⁺)			
2730& 10		3	0.073 6	β_3 : other: 0.100 12 (1968Ma34).
2950& 20		(4)	0.026 3	
3193 20				
3279 20				
3360& 10		3	0.060 4	
3570& 20				
3642 20				
3930 20				
3995 20				
4384 20	(3 ⁻ ,4 ⁻ ,5 ⁻)			
4446 20	(3 ⁻ ,4 ⁻ ,5 ⁻)			
4497 20	(3 ⁻ ,4 ⁻ ,5 ⁻)			
4559 20	(3 ⁻ ,4 ⁻)			
4597 20	(3 ⁻ ,4 ⁻)			

Continued on next page (footnotes at end of table)

$^{130}\text{Te}(\text{p},\text{p}'),(\text{p},\text{p}'\gamma)$ [1971Hi02,1970Bu01,1975Ma03](#) (continued) ^{130}Te Levels (continued)

$E(\text{level})^{\dagger\ddagger}$	$J^{\pi\#}$	$E(\text{level})^{\dagger\ddagger}$	$J^{\pi\#}$	$E(\text{level})^{\dagger\ddagger}$	$J^{\pi\#}$
4667 20	(3 ⁻ ,4 ⁻)	4793 20	(3 ⁻ ,4 ⁻)	4856 20	(1 ⁻ ,2 ⁻)
4714? 20		4796 20	(1 ⁻ ,2 ⁻)	4891 20	(3 ⁻ ,4 ⁻)
4748? 20		4833? 20		4950 20	(3 ⁻ ,4 ⁻)
				4983? 20	

[†] From [1971Hi02](#).[‡] [Additional information 1](#).# From on-resonance proton $\sigma(\theta)$ data at various IAR ([1971Hi02](#)).@ From [1970Bu01](#).& From [1975Ma03](#). $\gamma(^{130}\text{Te})$

$E_{\gamma}^{\dagger}$	$E_i(\text{level})$	E_f	J_f^{π}
749 [‡]	1589	840	
794	1634	840	
840	840	0	0 ⁺
1885	1885	0	0 ⁺
1983	1983	0	0 ⁺
2100	2100	0	0 ⁺
2191	2191	0	0 ⁺

[†] From [1970Bu01](#).[‡] Placement of transition in the level scheme is uncertain.

$^{130}\text{Te}(\text{p,p}')(\text{p,p}'\gamma)$ 1971Hi02,1970Bu01,1975Ma03

Legend

Level Scheme

-----► γ Decay (Uncertain)

