

$^{128}\text{Te}(\text{d,t}),(^3\text{He},\alpha)$ 1985Ro19

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. Hashizume	NDS 112, 1647 (2011)	1-Oct-2009

Magnetic spectrograph, $\sigma(\theta)$ $\theta=7.5^\circ-77.5^\circ$ (15 angles), uncertainty in measured cross sections is 20%; deduced S, enriched target;
 DWBA and CCBA calculation.
 $E(\text{d})=17$ MeV, FWHM ≈ 12 keV.
 $E(^3\text{He})=24$ MeV, FWHM ≈ 32 keV.
 Other: (d,t) (1964Jo12).

 ^{127}Te Levels

$E(\text{level})^\dagger$	L &	S^a	Comments
0.0 ‡	2	2.5	
62 5	0	1.5	
89 ‡ 5	5	5.5	E(level): 90 10 ($^3\text{He},\alpha$).
340 ‡ 5	(5)		E(level): 341 10 ($^3\text{He},\alpha$).
475 5	2	0.008	
503 5	2	0.07	
603 5	2	0.03	
633 ‡ 5	3	0.11	E(level): 629 10 ($^3\text{He},\alpha$).
687 ‡ 5	4	0.56	E(level): 683 10 ($^3\text{He},\alpha$).
763 5			
783 ‡ 5	2	1.7	E(level): 785 10 ($^3\text{He},\alpha$).
926 ‡ 5	4	3.9	E(level): 925 10 ($^3\text{He},\alpha$).
966 5	2	0.01	
1075 5	2	0.03	
1140@ 5	2	0.87	
1157@ 5	(5)	0.18	
1206 5	2	0.009	
1290 ‡ 5	2	0.53	E(level): 1291 10 ($^3\text{He},\alpha$).
1308 5	2	0.02	
1354 5	(1)	0.005	
1378 ‡ 5	2	0.61	E(level): 1383 10 ($^3\text{He},\alpha$).
1405 5	0	0.05	
1429@ 5	4	0.16	
1447@ 5	(4)	0.12	
1491 5	(4)	0.14	
1554 ‡ 5	2	1.1	E(level): 1556 10 ($^3\text{He},\alpha$).
1567 5	2	0.11	
1602 5	(2)	0.01	
1614 ‡ 5	4	0.35	E(level): 1615 10 ($^3\text{He},\alpha$).
1683 5	2	0.01	
1702 5	2	0.01	
1732# 5	(4)	0.11	
1770 5	2	0.02	
1804# 5	4	0.21	
1875 5	2	0.11	
1887 5	0	0.03	
1914 5	2	0.02	
1938# 5	4	0.37	
1954 5	0	0.07	
1974 5	2	0.04	

Continued on next page (footnotes at end of table)

$^{128}\text{Te}(\text{d,t}),(^3\text{He},\alpha)$ **1985Ro19 (continued)** ^{127}Te Levels (continued)

$E(\text{level})^\dagger$	$L^\&$	S^a	$E(\text{level})^\dagger$	$L^\&$	S^a	$E(\text{level})^\dagger$	$L^\&$	S^a	$E(\text{level})^\dagger$	$L^\&$	S^a
1985 [#] 5	(4)	0.29	2051 5	(2)	0.02	2174 5	2	0.03	2279 5	(2)	0.02
1998 5	1	0.02	2098 5	2	0.02	2196 [#] 5	4	0.44	2461 5	(0)	0.01
2008 5	(0)	0.02	2117 5	0	0.1	2217 5	2	0.03	2473 5	(2)	0.06
2026 5	2	0.03	2137 [#] 5	(4)	0.34	2242 [#] 5	(4)	0.17			

[†] From (d,t).[‡] Also observed in ($^3\text{He},\alpha$).[#] Also observed in ($^3\text{He},\alpha$), but energy is uncertain.[@] Complex peak in ($^3\text{He},\alpha$).[&] From DWBA analysis.^a From DWBA. Values are those given by the authors based on values from both (d,t) and ($^3\text{He},\alpha$).