

Table 4.3 from (92TI02): Energy levels of ${}^4\text{He}$ defined for channel radii $a_p = a_n = 4.9$ fm, $a_d = 7.0$ fm. All energies and widths are in the c.m. system.

E_x (MeV)	J^π	T	Γ_p (MeV)	Γ_n (MeV)	Γ_d (MeV)	Γ (MeV)	Decay	Reactions
g.s.	0^+	0						
20.21	0^+	0	0.50	0.00	0.00	0.50	p	16, 22, 24, 28, 31
21.01	0^-	0	0.64	0.20	0.00	0.84	p, n	24
21.84	2^-	0	1.26	0.75	0.00	2.01	p, n	24, 29
23.33	2^-	1	2.64	2.37	0.00	5.01	p, n	
23.64	1^-	1	3.44 ^a	2.76 ^a	0.00	6.20	p, n, (γ)	
24.25	1^-	0	3.08 ^a	2.87 ^a	0.15	6.10	p, n, d	3, 4
25.28	0^-	1	4.12	3.85	0.00	7.97	p, n	
25.95	1^-	1	6.52 ^b	6.14 ^b	0.00	12.66	p, n, γ	7
27.42	2^+	0	0.25	0.23	8.21 ^c	8.69	p, n, d	6, 28, 32
28.31	1^+	0	4.72	4.66	0.51	9.89	p, n, d	
28.37	1^-	0	0.07	0.08	3.77	3.92	(p, n), d	(3, 4), 6, 28
28.39	2^-	0	0.02	0.02	8.71	8.75	(p, n), d	(3, 4), 6
28.64	0^-	0	0.00	0.00	4.89	4.89	d	6
28.67	2^+	0	0.00	0.00	3.78 ^d	3.78	d, γ	6, 21
29.89	2^+	0	0.04	0.04	9.64 ^e	9.72	(p, n), d	28

^a Primarily ${}^3\text{P}_1$.

^b Primarily ${}^1\text{P}_1$.

^c Primarily ${}^5\text{S}_2$.

^d Primarily ${}^1\text{D}_2$.

^e Primarily ${}^5\text{D}_2$.