

Table 12.22 from (1975AJ02):

Summary of recent $^{12}\text{C}(d, d)$, ($^3\text{He}, ^3\text{He}$) and (α, α) angular distributions ^a

(a) $^{12}\text{C}(d, d)$ measurements

E_d (MeV)	^{12}C states	Refs.
1.39 – 2.16	g.s.	(1970AL26)
4.66 – 5.27	g.s.	(1968CO04)
5.00 – 8.40	g.s.	(1969CO02)
9.2 – 13.9	g.s.	(1966BA60)
10.03, 12.01	g.s.	(1974JA25)
10.6 – 13.9	g.s.	(1970GU01)
13.6	g.s.	(1970VE06, 1972MA47)
13.7	4.4	(1970GU01)
24.1, 26.2, 27.5, 28.8	12.7, 15.1	(1975LI1K)
28	g.s.	(1968GA13, 1968LE1G, 1970BU1G)
41, 46, 51	g.s.	(1971FE1C)
52	g.s., 4.4, 7.7, 9.6	(1968HI09, 1968HI14)
80	g.s., 4.4, 9.6	(1971DU09)

(b) $^{12}\text{C}(^3\text{He}, ^3\text{He})$ measurements

$E(^3\text{He})$ (MeV)	^{12}C states	Refs.
3.6 – 3.8	g.s.	(1967SC27)
5.29 – 5.50	g.s.	(1968LA19)
6, 7, 8	g.s.	(1968WE15, 1968WE1C)
9.5, 10.5, 11.5	g.s., 4.4	(1970BO34)
11	g.s.	(1970SC23)
15	g.s.	(1969ZU02)
16, 17, 18	g.s., 4.4	(1968FO06)
18.6, 20.0, 22.2, 23.9	g.s.	(1968WA1E, 1970BA1P)
24.0, 29.2, 34.7, 39.6	g.s., 4.4, 7.7, 9.6	(1973FU03)
25.3	g.s.	(1968MA46)
34.7, 39.6	14.1	(1973FU03)
36	g.s., 4.4, 12.7, 14.1, 15.1, 16.1	(1969AR08, 1969AR10, 1970AR05)
36, 42	g.s.	(1968HU1A, 1969HU1B)

Table 12.22 from (1975AJ02):

Summary of recent $^{12}\text{C}(\text{d}, \text{d})$, $(^3\text{He}, ^3\text{He})$ and (α, α) angular distributions ^a (continued)

42	g.s., 4.4, 7.7, 12.7, 14.1, 16.1	(1973SI11)
49.8	see Table 12.23	(1968BA1E, 1969BA06)
65	g.s., 4.4, 7.7, 9.6, 12.7, 14.1, 15.1, 16.1	(1973CE1C)
217	g.s.	(1973WI07, 1974WI16)

(c) $^{12}\text{C}(\alpha, \alpha)$ measurements

E_α (MeV)	^{12}C states	Refs.
12.5 – 16.9	7.7	(1970MO22)
15.3 – 17.0	9.6	(1970MO22)
18.0 – 26.6	g.s.	(1972KU19, 1973KU18)
19.4 – 26.6	g.s., 4.4	(1970MO06)
20.1 – 24.0	g.s., 4.4, 9.6	(1968AG03, 1969AG06, 1970AG08, 1970FE07, 1970FE09, 1971FE1F)
22, 24, 28, 29	g.s.	(1972OE01, 1973OE01)
28.4	g.s., 4.4	(1965KO1A)
32.5	g.s., 4.4	(1972BU09)
33.4	g.s., 4.4	(1967AR17)
36	12.7	(1975CE1E)
41	g.s., 4.4	(1971BA64)
44	g.s.	(1968FA1A)
56	g.s.	(1968GA1C, 1969GA11)
56	g.s., 4.4	(1968LE1G)
90	see Table 12.23	(1972FA07)
104	g.s.	(1968HA1D, 1969HA14)
104	g.s., 4.4, 7.7	(1970SP01, 1971SP08)
139	g.s., 4.4, 7.7, 9.6	(1973SM03)
155	4.4, 9.6	(1970TA12)
166	g.s., 4.4, 7.7, 9.6	(1969BR19, 1970TA12, 1972BR30, 1973BI12)

^a See (1968AJ02) for the older measurements, in particular [Table 12.24](#) for (α, α) .