Table 16.27 from (1993TI07): Excited states of ^{16}O from ^{16}O(p, p′), (d, d′), (^{3}He, ^{3}He′) and (α, α') [a]

No.	E_x (MeV ± keV) [b]	L [b]	E_x (MeV) [c]	E_x (MeV ± keV) [d]	E_x (MeV ± keV) [e]	L [e]	Γ (keV) [b]	J^π; T [b]
1			6.05					
2	6.13 [f]	3	6.13	6.13 [i]	6.13	3		3^-; 0
3	6.92 [f]	2	6.92	6.92 [d]	6.92	2		2^+; 0 [f]
4	7.12 [f]	1	7.12		7.12	1		1^-; 0
5	8.87 [g]		8.87	8.87 ± 30 [d]	8.87	3 [a]		2^-; 0 [g]
6	9.84 [f]	2	9.85	9.84 ± 30	9.85	2		2^+; 0 [d,f]
7	10.35 ± 20 [f]	4	10.34	10.35 ± 30	10.35 ± 30	4		4^+; 0
8	10.95 ± 30 [h]	1	10.95					0^-; 0
9	11.10 ± 20 [f]	4	11.1 [i]	11.09 ± 30 [i]	11.10 ± 30	4		4^+; 0
10	11.52 ± 20 [f]	2	11.52	11.52 ± 30 [d]	11.52 ± 30	2	74 ± 4	2^+; 0
11	12.05 ± 20 [f]		12.05	12.04 ± 30	12.05 ± 30	(0)		0^+; 0^-
12			12.44		12.44	1		1^-; 0
13	12.53 ± 20 [g]	1	12.53		12.51 ± 30			2^-; 0 [g]
14	12.80 [h]							0^-; 1
15	12.97 [g]							2^-; 1
16	13.02 ± 20	2	13.1 [i]	13.11 ± 30	13.07 ± 20 [i]	2		2^+; 0
17	13.26 ± 30	3						3^-; 1
18			13.66					
19	13.95 ± 50	$(0+4)$		13.97 ± 30	13.95 ± 50 [i]	4		4^+; 0
20	14.0 [g,i]							$(1^+; 1)$
21				14.94 ± 30	14.87 ± 100	6		6^+
22	15.26 ± 50	(3)		15.4				

Table 16.27 from (1993TI07): Excited states of ^{16}O from ^{16}O(p, p′), (d, d′), (^{3}He, ^{3}He′) and (α, α') [a] (continued)

No.	E_x (MeV ± keV) [b]	L [b]	E_x (MeV) [c]	E_x (MeV ± keV) [d]	E_x (MeV ± keV) [e]	L [e]	Γ (keV) [b]	J^π; T [b]
23	15.50 ± 30 [f]	3			15.50 ± 50	3	200 ± 60	3^-; 0
24	16.22 ± 10 [g]							1^+; 1
25	16.52 ± 50	2		16.46 ± 30	16.40 ± 100		< 100	2^+
26	16.93 ± 50	(3)						
27	17.14 ± 10 [g]							1^+; 1
28	17.25 ± 50 [f]			17.19 ± 30	17.25 ± 80	(2)	160 ± 60	1^+; 0 [f]
29	17.79 ± 40	(3)		17.8	17.83 ± 100		150 ± 60	4^-; 0
30	18.15 ± 50	(2)			18.0 ± 100	2	300 ± 50	(2^+); 0
31	18.40 ± 100	2		18.52 ± 30	18.5 ± 100	2	250 ± 50	2^+; 0
32	18.60 ± 100				18.70 ± 100	(3)	280 ± 80 [i]	
33	18.77 ± 10 [g]							1^+; 1
34	18.98 ± 40	(3)		19.09 ± 30			< 100	4^-; 1
35	19.35 ± 80	(1)						
36	19.56 ± 50 [f]				19.50 ± 100	(2,3)	300 ± 50	3^-; 0
37	19.80 ± 40	3					< 100	4^-; 0
38				20.2 ± 200 [i]	20.15 ± 100	2	350 ± 50	2^+; 0
39	20.40 [g,i]							2^-; 1
40	20.56 ± 80	(1, 2)					370 ± 100	
41	20.90 [g,i]							2^-; 1
42	21.05 ± 50	1			21.0 ± 100	2	320 ± 50	$(2^+; 0)$
43				21.6 ± 200			1000 ± 300	2^+
44	21.80 ± 80	1			21.85 ± 100	2	400 ± 50	$(2^+; 0)$

Table 16.27 from (1993TI07): Excited states of ^{16}O from ^{16}O(p, p′), (d, d′), (^{3}He, ^{3}He′) and (α, α') [a] (continued)

No.	E_x (MeV ± keV) [b]	L [b]	E_x (MeV) [c]	E_x (MeV ± keV) [d]	E_x (MeV ± keV) [e]	L [e]	Γ (keV) [b]	J^π; T [b]
45	22.40 ± 80	(1, 2)					420 ± 100	1^-; 1
46					22.5 ± 100		400 ± 50	(2^+, 3^-); 0
47	23.20 ± 80	1					600 ± 200	1^-; 1
48				23.50 ± 150	23.25 ± 100	2	400 ± 50	2^+; 0
49					23.85 ± 100	(0)	400 ± 50	(2^+, 0^+); 0
50	24.00 ± 100	(1, 2)					1200 ± 300	1^-; 1
51					24.4 ± 100		400 ± 50	(2^+, 3^-); 0
52					25.15 ± 300		2800 ± 600	2^+
53	25.50 ± 150	(1)					1300 ± 300	1^-; 1

[a] For references see Table 16.24 in (1982AJ01).

[b] (p, p′).

[c] (d, d′). Energies are nominal (±100 to ±260 keV); angular distributions reported to all but last state.

[d] (^{3}He, ^{3}He′).

[e] (α, α').

[f] (1984AM04): $E_p = 135$ MeV.

[g] (1987DJ01).

[h] (1984HO17); $E_{\bar{p}} = 65$ MeV.

[i] Unresolved states.