

Table 17.12 from (1982AJ01): Resonances ^a in ¹⁶O(n, n) and ¹⁶O(n, α)

E_n (keV)	$\Gamma_{c.m.}$ (keV)	$\Gamma_{\lambda n}$ (keV)	$\Gamma_{\lambda\alpha}$ (keV)	J^π	E_x (keV)
433 ± 2^b	45	45^j		$\frac{3}{2}^-$	4552
1000 ± 2	96	96^j		$\frac{3}{2}^+$	5085
1140 ^c	< 0.1				5218
1312 ± 2	42	41.5^j		$\frac{3}{2}^-$	5378
1651 ± 2	3.4 ± 0.3	3.4		$\frac{7}{2}^-$	5697
1689 ± 2	< 1			d	5733
1833 ± 2	6.6 ± 0.7	6.6		$\frac{3}{2}^+$	5868
1908 ± 4	32 ± 3	31.5^j		$\frac{1}{2}^-$	5939
2351 ± 8	124 ± 12	124		$\frac{1}{2}^+$	6356
2889 ± 2	< 1			d	6862
3006 ± 2	< 1			d	6972
3211.70 ± 0.17	1.38 ± 0.05	1.38 ± 0.05^e	0.0033	$\frac{5}{2}^-$	7165.2
3250 ± 10	280 ± 30	280	0.07	$\frac{3}{2}^+$	7202
3438.38 ± 0.19	0.64 ± 0.23	0.64 ± 0.23^e	0.01	$\frac{5}{2}^+$	7378.4
3441.73 ± 0.14	0.96 ± 0.20	0.96 ± 0.20^e	0.003	$\frac{5}{2}^-$	7381.5
3630 ± 20	500 ± 50	500	0.08	$\frac{3}{2}^-$	7559
3647 ^c	< 0.1				7576
3767.76 ± 0.22	14.4 ± 0.3	13.0 ± 0.6^e	0.01	$\frac{7}{2}^-$	7688.2
4053 ± 8	90 ± 9	84	6.7	$\frac{1}{2}^+$	7958
4090 ± 50	270 ± 30	250	16	$\frac{1}{2}^-$	7990
4162 ± 8	85 ± 9	71	15	$\frac{3}{2}^+$	8059
4290 ± 20	69 ± 7	68	0.8	$\frac{1}{2}^-$	(8180)
4310 ± 10	52	48	4.0	$(\frac{3}{2}^-)$	8199
4463.41 ± 0.26	11.4 ± 0.5	8.1 ± 0.3	2.2	$\frac{1}{2}^+$	8342.4
4527.12 ± 0.07	6.17 ± 0.13	4.75 ± 0.11	0.54	$\frac{5}{2}^+$	8402.3
4594.83 ± 0.09	2.13 ± 0.11	1.18 ± 0.04	(7.6)	$\frac{7}{2}^+$	8466.0
4631.78 ± 0.12	6.89 ± 0.22	2.86 ± 0.08	1.9	$\frac{5}{2}^-$	8500.7
4829.9 ± 0.4	55.3 ± 0.6	48.9 ± 1.1	1.8	$\frac{3}{2}^-$	8687.0
5050	78	68	9.5	$\frac{3}{2}^+$	8895
5127.0 ± 1.6	26.3 ± 1.9	23.5 ± 1.9		$\frac{7}{2}^-$	8966.4

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E_n (keV)	$\Gamma_{c.m.}$ (keV)	$\Gamma_{\lambda n}$ (keV)	$\Gamma_{\lambda\alpha}$ (keV)	J^π	E_x (keV)
5368.90 ± 0.09	3.53 ± 0.13	2.37 ± 0.08		$\frac{5}{2}^+$	9193.9
5610	120	120		$\frac{3}{2}^-$	9420
5640	140			$\geq \frac{3}{2}^+$	9450
5919.67 ± 0.14	23.1 ± 0.3	18.0 ± 0.6		$\frac{7}{2}^+$	9711.9
5995.68 ± 0.15	11.7 ± 0.3	10.3 ± 0.3		$\frac{3}{2}^+$	9783.3
6076.08 ± 0.15	4.01 ± 0.23	3.37 ± 0.23		$(\frac{5}{2}^-)$	9858.9
6094.8 ± 1.0	16.7 ± 1.7	10.9 ± 1.2		$(\frac{1}{2}^-)$	9876.5
6404.6 ± 0.5	49.1 ± 0.8	22.3 ± 0.6		$(\frac{7}{2}^-)$	10167.8
6820.7 ± 0.6	42.5 ± 1.1	17.2 ± 0.7 ^e		$(\frac{7}{2}^-)$	10559.1
7199.3 ± 1.3	41.7 ± 1.4	26.4 ± 0.9 ^e		$(\frac{5}{2}^+)$	10915.1
7373.31 ± 0.18	2.4 ± 0.3	1.88 ± 0.12 ^e		$\frac{1}{2}^-$ ^g	11078.7
7830	190			$\geq \frac{3}{2}^+$	11509
8320	270			$\geq \frac{3}{2}^+$	11970
8740	130				12365
8848.8 ± 0.6	6.9 ± 1.1	1.27 ± 0.14 ^e		$\frac{3}{2}^-$ ^g	12446.0
9050	95				12656
9353 ± 6	6 ± 2 ^f	0.21 ± 0.14 ^e		$\frac{1}{2}^+$ ^g	12940 ± 6
9414.9 ± 0.6	2.5 ± 1.0	0.40 ± 0.06 ^e		$\frac{5}{2}^-$ ^g	12998.2
10092.5 ± 2.4	9 ± 5	0.24 ± 0.09 ^e		$(\frac{5}{2}^+)$ ^g	13635.3
10130	400				13672
10725.5 ± 1.5	20.5 ± 1.6	2.07 ± 0.16 ^e		$(\frac{7}{2}^-)$ ^g	14230.3
10785 ± 3	7.5 ± 4	0.80 ± 0.16 ^h		^g	14286
10960 ± 3	40 ± 6	13 ± 6 ^h			14451
11140	340			$(\geq \frac{3}{2}^+)$	14621
11322 ± 3	36 ± 13	3.2 ± 1.0 ^h		$(\frac{1}{2}^-)$ ⁱ	14791
11540	180				14997
11756 ± 3	52 ± 14	11 ± 3 ^h		$(\frac{3}{2}^+)$ ⁱ	15199
11936 ± 3	40 ± 6	7 ± 1 ^h		$(\frac{5}{2}^+)$ ⁱ	15368
12867 ± 4	21 ± 10	2 ± 0.5 ^h		$(\frac{9}{2}^+)$ ⁱ	16243
14136 ± 11	66 ± 20	8.0 ± 2.4 ^h		^g	17436

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E_n (keV)	$\Gamma_{c.m.}$ (keV)	$\Gamma_{\lambda n}$ (keV)	$\Gamma_{\lambda\alpha}$ (keV)	J^π	E_x (keV)
14853 ± 4	43 ± 12	1.0 ± 0.3 ^e		$\frac{3}{2}^-$	18110

^a (1973FO11, 1973JO01, 1980CI03, 1981HI01). See also Table 17.12 in (1977AJ02).

^b $\Gamma_\gamma < 4.0$ eV, $\Gamma_n = 60 \pm 15$ keV (1971AL09).

^c Not observed in σ_t : see (1973FO11).

^d Not $\frac{1}{2}^+$ (1973FO11).

^e Γ_{n_0} (1980CI03, 1981HI01, and F. Hintenberger, private communication).

^f (1976MC11).

^g $T = \frac{3}{2}$.

^h $(J \pm \frac{1}{2})\Gamma_{n_0}$ (1981HI01).

ⁱ J^π assignment by comparison with ¹⁷N states presumed to be analogs; then $T = \frac{3}{2}$ (1981HI01).

^j See also Table 17.2.