

Table 16.14 from (1993TI07): Radiative decays in ^{16}O ^a

E_i (MeV)	$J_i^\pi; T$	E_f (MeV)	$J_f^\pi; T$	Branch (%)	Γ_{rad} (eV)
6.05	$0^+; 0$	0	$0^+; 0$	100	3.55 ± 0.21 ^b
6.13	$3^-; 0$	0	$0^+; 0$	100	$(2.60 \pm 0.13) \times 10^{-5}$
6.92	$2^+; 0$	0	$0^+; 0$	> 99	0.097 ± 0.003 ^c
		6.05	$0^+; 0$	$(2.7 \pm 0.3) \times 10^{-2}$	$(2.7 \pm 0.3) \times 10^{-5}$
		6.13	$3^-; 0$	$\leq 8 \times 10^{-3}$	
7.12	$1^-; 0$	0	$0^+; 0$	> 99	0.055 ± 0.003 ^c
		6.05	$0^+; 0$	$< 6 \times 10^{-4}$	
		6.13	$3^-; 0$	$(7.0 \pm 1.4) \times 10^{-2}$	
8.87	$2^-; 0$	0	$0^+; 0$	7.2 ± 0.8	$(2.6 \pm 0.4) \times 10^{-4}$
		6.05	$0^+; 0$	0.122 ± 0.033	$(3.1 \pm 1.0) \times 10^{-6}$
		6.13 ^f	$3^-; 0$	77.7 ± 1.6 ⁱ	$(2.8 \pm 0.3) \times 10^{-3}$ ^d
		6.92	$2^+; 0$	3.6 ± 0.5 ⁱ	$(1.5 \pm 0.3) \times 10^{-4}$
		7.12	$1^-; 0$	11.4 ± 0.5 ⁱ	$(4.2 \pm 0.8) \times 10^{-4}$ ^e
9.59	$1^-; 0$	0	$0^+; 0$	≈ 100	$(2.5 \pm 0.4) \times 10^{-2}$
		6.92	$2^+; 0$		$(2.9 \pm 1.0) \times 10^{-3}$
9.84	$2^+; 0$	0	$0^+; 0$	61 ± 4	$(5.7 \pm 0.6) \times 10^{-3}$
		6.05	$0^+; 0$	18 ± 4	$(1.9 \pm 0.4) \times 10^{-5}$
		6.92	$2^+; 0$	21 ± 4	$(2.2 \pm 0.4) \times 10^{-5}$
10.36	$4^+; 0$	0	$0^+; 0$		$(5.6 \pm 2.0) \times 10^{-8}$
		6.13	$3^-; 0$		$< 1.0 \times 10^{-3}$
		6.92	$2^+; 0$	≈ 100	$(6.2 \pm 0.6) \times 10^{-2}$
10.96	$0^-; 0$ ^g	7.12	$1^-; 0$	> 99	0.08 ± 0.05
11.10	$4^+; 0$	6.13	$3^-; 0$		$(3.1 \pm 1.3) \times 10^{-3}$
		6.92	$2^+; 0$		$(2.5 \pm 0.6) \times 10^{-3}$
11.52	$2^+; 0$	0	$0^+; 0$	91.7	0.61 ± 0.02
		6.05	$0^+; 0$	4.2 ± 0.7	$(3.0 \pm 0.5) \times 10^{-2}$
		6.92	$2^+; 0$	4.0 ± 1.0	$(2.9 \pm 0.7) \times 10^{-2}$
		7.12	$1^-; 0$	≤ 0.8	
12.05	$0^+; 0$	0	$0^+; 0$		4.03 ± 0.09 ^b
12.44	$1^-; 0$	0	$0^+; 0$	≈ 100	12 ± 2
		6.05	$0^+; 0$	1.2 ± 0.4	0.12 ± 0.04

Table 16.14 from (1993TI07): Radiative decays in ^{16}O ^a (continued)

E_i (MeV)	$J_i^\pi; T$	E_f (MeV)	$J_f^\pi; T$	Branch (%)	Γ_{rad} (eV)
12.53	$2^-; 0$	0	$0^+; 0$		$(3.3 \pm 0.5) \times 10^{-2}$ ^j
		6.13	$3^-; 0$	60 ± 6	2.1 ± 0.2
		6.92	$2^+; 0$	< 10	< 0.34
		7.12	$1^-; 0$	15 ± 3	0.5 ± 0.1
		8.87	$2^-; 0$	25 ± 3	0.9 ± 0.1
12.80	$0^-; 1$	7.12	$1^-; 0$	≈ 100	2.5 ± 0.2
12.97	$2^-; 1$	0	$0^+; 0$		$(3.4 \pm 0.9) \times 10^{-2}$ ^j
		6.13	$3^-; 0$	63 ± 6	2.3 ± 0.2
		7.12	$1^-; 0$	12 ± 3	0.44 ± 0.10
		8.87	$2^-; 0$	25 ± 3	0.90 ± 0.10
13.09 ^h	$1^-; 1$	0	$0^+; 0$	≈ 100	32 ± 5
		6.05	$0^+; 0$	0.58 ± 0.12	
		7.12	$1^-; 0$	3.1 ± 0.8	1.4 ± 0.4

^a See [Tables 16.12 in \(1971AJ02\)](#), [16.15 in \(1977AJ02\)](#) and [16.12 in \(1982AJ01\)](#) for the earlier work and for references. See also [Table 16.15](#) here.

^b Monopole matrix element in fm^2 .

^c Weighted mean of earlier measurements and of a newer one reported in [reaction 42 \(1985MO10\)](#).

^d $(3.0 \pm 0.4) \times 10^{-4}$ [M1], $(2.5 \pm 0.2) \times 10^{-3}$ [E2] ([1982VE04](#)).

^e $(8 \pm 3) \times 10^{-5}$ [M1], $(3.4 \pm 0.5) \times 10^{-4}$ [E2] ([1982VE04](#)).

^f $E_\gamma = 2471.5 \pm 0.5$ keV for $(8.87 \rightarrow 6.13)$ transition.

^g Pairs due to this transition are not observed.

^h For the radiative decay of higher states see [Tables 16.15](#), [16.22](#), and [16.26](#).

ⁱ ([1982VE04](#)). See also for δ .

^j ([1986ZI08](#)).