

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Tilley, Weller, Cheves, Chasteler		NP A595,1 (1995)	31-Oct-1994

$Q(\beta^-) = -1.972 \times 10^4$ 12; $S(n) = 19254.1$ 5; $S(p) = 3923.1$ 5; $Q(\alpha) = -5114.8$ 4 [2012Wa38](#)

Note: Current evaluation has used the following Q record -2000E1 4019237 503921.6 47

[1993Au05](#).

 ^{18}Ne LevelsCross Reference (XREF) Flags

A	$^{18}\text{Ne} \beta^+$ decay	E	$^{16}\text{O}(^{10}\text{B}, ^8\text{Li})$
B	$^{12}\text{C}(^{12}\text{C}, ^6\text{He})$	F	$^{16}\text{O}(^{12}\text{C}, ^{10}\text{Be})$
C	$^{14}\text{O}(\alpha, \gamma)$	G	$^{18}\text{O}(\pi^+, \pi^-)$
D	$^{16}\text{O}(^3\text{He}, n)$	H	$^{20}\text{Ne}(p, t)$

E(level)	J^π	$T_{1/2}$	XREF	Comments
0.0	0^+	1672 ms 8	A D GH	$\% \varepsilon + \% \beta^+ = 100$ T=1 $T_{1/2}$: Weighted Av: 1.669 ms 4 (1975Al27), 1.687 ms 9 (1975Ha21).
1887.3 2	2^+	0.46 ps 4	D GH	$\%IT=100$
3376.2 4	4^+	3.0 ps 4	DEF H	$\%IT=100$
3576.3 20	0^+	3 ps 1	D H	$\%IT=100$
3616.4 6	2^+	44 fs +21-14	D H	$\%IT=100$
4519 8	1^-	≤ 20 keV	D H	$\%p=?$
4561 9	3^+		D	
4590 8	0^+	≤ 20 keV	D H	$\%p=?$
5090 8	$(2^+, 3^-)$	40 keV 20	D H	$\%p=?$
5146 7	$(2^+, 3^-)$	25 keV 15	D H	
5453 10		≤ 50 keV	H	
6150	(1^-)		BC	1992HaZZ report the observation of several new levels in the region >6 MeV.
6297 10	(4^+)	≤ 60 keV	D H	
6353 10		≤ 60 keV	H	
7059 10	$(1^-, 2^+)$	180 keV 50	D	
7350			B	1992HaZZ report the observation of several new levels in the region >6 MeV.
7713 10		≤ 50 keV	D H	
7910 10	$(1^-, 2^+)$	≤ 50 keV	D	
7950 10		≤ 60 keV	H	
8086 10		≤ 50 keV	D	
8500 30		≤ 120 keV	D	
9201 9		≤ 50 keV	H	

 $\gamma(^{18}\text{Ne})$

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	Comments
1887.3	2^+	1887	100	0.0	0^+	E2	B(E2)(W.u.)=17.7 18
3376.2	4^+	1489	100	1887.3	2^+	E2	B(E2)(W.u.)=8.9 12
							Ground state decay is <1%.
3576.3	0^+	1689	100	1887.3	2^+	E2	B(E2)(W.u.)=5.0 25
							Ground state decay is <5%.
3616.4	2^+	1729	91 2	1887.3	2^+	M1	B(M1)(W.u.)=0.088 38
							The mixing ratio, δ , is consistent with O.
		3616	9 2	0.0	0^+	E2	B(E2)(W.u.)=0.66 33

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Level Scheme

Intensities: Type not specified

Legend

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$

