

Table 19.11 from (1995TI07): Lifetimes of some ^{19}F states

$^{19}\text{F}^*$ (MeV)	J^π	τ_m	Refs.
0.110	$\frac{1}{2}^-$	0.853 ± 0.010 ns	mean: see (1972AJ02)
0.197	$\frac{5}{2}^+$	128.8 ± 1.5 ns	mean: see (1978AJ03)
1.35	$\frac{5}{2}^-$	4.17 ± 0.06 ps ^a	(1983BI03)
1.46	$\frac{3}{2}^-$	90 ± 20 fs	c
1.55	$\frac{3}{2}^+$	5 ± 3 fs	c
2.78	$\frac{9}{2}^+$	280 ± 30 fs	c
3.91	$\frac{3}{2}^+$	9 ± 5 fs	c
4.00	$\frac{7}{2}^-$	19 ± 7 fs	c
4.03	$\frac{9}{2}^-$	67 ± 5 fs	c
4.38	$\frac{7}{2}^+$	< 11 fs	c
4.55	$\frac{5}{2}^+$	< 50 fs	c
4.56	$\frac{3}{2}^-$	17_{-8}^{+10} fs	c
4.65	$\frac{13}{2}^+$	3.68 ± 0.38 ps ^b	(1983BI03)
4.68	$\frac{5}{2}^-$	15.4 ± 3.0 fs	c
5.11	$\frac{5}{2}^+$	< 30 fs	c
5.34	$\frac{1}{2}(+)$	≤ 0.1 fs	c
5.42	$\frac{7}{2}^-$	≤ 0.9 fs	c
5.46	$\frac{7}{2}^+$	< 0.26 fs	c
5.62	$\frac{5}{2}^-$	≤ 1.3 fs	c

^a $|M|^2 = 21.4 \pm 0.3$ W.u. ([1983BI03](#)) for the E2 transition $[1.35 \rightarrow 0.11]$. See also ([1985KE1C](#)) and [Table 19.8 in \(1983AJ01\)](#).

^b $|M|^2 = 3.1 \pm 0.3$ W.u. ([1983BI03](#)). See also ([1983AJ01](#)).

^c See [Table 19.8 in \(1983AJ01\)](#) and [Table 19.12 here](#).