

Table 19.8 from (1987AJ02): Lifetimes of some  $^{19}\text{F}$  states

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

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

<sup>b</sup>  $|M|^2 = 3.1 \pm 0.3$  W.u. (1983BI03). See also (1983AJ01).

<sup>c</sup> See Table 19.8 in (1983AJ01) and Table 19.9 here.