

Table 19.13 from (1978AJ03):
Levels of ^{19}F and ^{19}Ne from $^{16}\text{O}(^6\text{Li}, ^3\text{He})$ and $^{16}\text{O}(^6\text{Li}, t)$ ^a

J^π ^c	E_x ^b in ^{19}F (MeV)			E_x ^b in ^{19}Ne (MeV)		
	$K^\pi = \frac{1}{2}^+$	$K^\pi = \frac{1}{2}^-$	other	$K^\pi = \frac{1}{2}^+$	$K^\pi = \frac{1}{2}^-$	other
$\frac{1}{2}^+$	0			0		
$\frac{3}{2}^+$	1.56			1.54 ^e		
$\frac{5}{2}^+$	0.20			0.24		
$\frac{7}{2}^+$	5.47			5.42		
$\frac{9}{2}^+$	2.78			2.79 ^e		
$\frac{11}{2}^+$	(6.50) ^d					
$\frac{13}{2}^+$	4.65			4.64		
$\frac{1}{2}^-$		0.11			0.28	
$\frac{3}{2}^-$		1.46			1.62 ^e	
$\frac{5}{2}^-$		1.35			1.51 ^e	
$\frac{7}{2}^-$		4.00			4.20 ^g	
$\frac{9}{2}^-$		4.03			4.14 ^g	
$\frac{3}{2}^+$			3.91 ^e			4.03 ^e
$\frac{7}{2}^+$			4.38			4.38 ^e
$\frac{5}{2}^+$			4.55			4.55 ^e
$\frac{3}{2}^-$ ($\frac{1}{2}^-$)			4.56			4.593 ± 0.006
$\frac{5}{2}^-$			4.68			4.71
$\frac{5}{2}^-$ (-)			5.11			5.09 ^f
$\frac{5}{2}^+$			5.34			
$\frac{7}{2}^-$			5.43			
						(6.12)
$(\frac{5}{2}, \frac{7}{2})^-$						6.29
$(\frac{11}{2}, \frac{9}{2})^-$						6.86

^a (1971BI06, 1972BI14, 1972GA08, 1973BI02). See also reaction 14 in ^{19}Ne .

^b Energies are nominal.

^c J^π assignments based on similarities in angular distributions, and on known spin of one of the analog states.

^d Not strongly populated at $E(^6\text{Li}) = 24$ MeV.

^e J^π assignments based on similarities in σ_{max} in both reactions, and on known spin of analog state.

^f $J^\pi = (\frac{5}{2}^-, \frac{7}{2}^-)$ (1973BI02); a state at 4.78 MeV is also reported (1973BI02).

^g See, however, reaction 5 in ^{19}Ne (1973DA31).