

Table 20.5 from (1987AJ02):
Some states of ^{20}F reported in $^{14}\text{N}(^7\text{Li}, \text{p})^{\text{a}}$

E_x (keV)	J^π	E_x (keV)	J^π
4512 ± 4	$(3^-, 4^-, 5^+, 6^+)$	6695 ± 3	^c
$4579 \pm 4^{\text{b}}$		6756 ± 3	$(2^-, 3, 4^+)$
4728 ± 5	$(3^-, 4^-, 4^+, 5^+)$	6823 ± 3	
4760 ± 5	$(4 \rightarrow 6^-, 6 \rightarrow 8^+)$	6936 ± 4	
$4889 \pm 4^{\text{b}}$	^c	6968 ± 4	
5032 ± 4	2^-	6991 ± 7	
5064 ± 5	$(1^-, 2, 3^+)$	$7034 \pm 9^{\text{d}}$	
5128 ± 5	$(2^-, 3, 4^+)$	7080 ± 7	
5222 ± 4	$(1, 2)^-$	7154 ± 5	
5282 ± 11	^c	7232 ± 7	
5316 ± 7	^c	7283 ± 4	
5350 ± 5	3^+	7319 ± 8	
5405 ± 4	^c	7370 ± 20	
$5448 \pm 6^{\text{b}}$		7419 ± 20	
$5560 \pm 6^{\text{b}}$		7495 ± 5	
$5612 \pm 5^{\text{b}}$	^c	7655 ± 5	
5725 ± 10	$(2 \rightarrow 5)$	7734 ± 6	
5765 ± 8	3^+	7865 ± 16	
5803 ± 7	1^+	7975 ± 5	
5940 ± 5	^c	8062 ± 8	
$6021 \pm 4^{\text{b}}$		8113 ± 4	
6090 ± 7	(0^-)	8147 ± 6	
6160 ± 5	$((1^-), 2, 3^+)$	8268 ± 12	
6193 ± 6	$(2^-, 3, 4^+)$	8349 ± 4	
$6297 \pm 5^{\text{b}}$	^c	8573	
$6344 \pm 9^{\text{b}}$	^c	8697	
$6379 \pm 5^{\text{b}}$	^c	8754	
6417 ± 4	$(3^-, 4, 5, (6^+))$	8792	
6470 ± 4	^c	8907	
$6565 \pm 6^{\text{b}}$	^c	8946	
$6600 \pm 8^{\text{b}}$	^c	9022	
$6633 \pm 3^{\text{b}}$			

^a (1985FO07); $E(^7\text{Li}) = 16$ MeV. For the low-lying states reported in this reaction see [Table 20.6 in \(1983AJ01\)](#). Please note that the density of states is very high and that when J^π assignments are made [based on cross sections and the $2J_f + 1$ relationship, with slopes which are different for even- and odd-parity states], these depend on the states having been resolved.

^b Unresolved [based on data from other reactions and on spectrum shown].

^c See (1985FO07).

^d All the observed groups for $E_x \gtrsim 7.0$ MeV appear to be due to unresolved states. See (1985FO07) for $\sigma_{\text{tot}}(0^\circ - 90^\circ)$ and J^π .