

Table 20.15 from (1978AJ03): States in ^{20}F from $^{19}\text{F}(\text{d}, \text{p})^{20}\text{F}$

E_x (keV)			$l_n^{\text{d,e}}$	$J^\pi^{\text{d,e}}$	$(2J + 1)S$		
(1970RO06) ^a	(1969HO20) ^{b,c}	(1972FO11) ^a			$E_d = 12 \text{ MeV}^{\text{d}}$	$16 \text{ MeV}^{\text{e}}$	n, l, j^{h}
0			2	2^+	0.054	≤ 0.06	$1d_{5/2}$
654.9 ± 1.0	655.9 ± 0.2	655 ± 1	2	3^+	2.32	2.59	$1d_{5/2}$
821.6 ± 1.0	823.0 ± 0.3	823 ± 5	i	4^+	0.32	0.36	$1g_{9/2}$
983.3 ± 1.0	983.9 ± 0.3	983 ± 5	i	1^-	0.014	0.016	$1p_{1/2}$
1056.3 ± 1.0	1057.0 ± 0.2	1056 ± 3	$0 + 2$	1^+	0.013	0.019	$2s_{1/2}$
1310.8 ± 1.1	1309.3 ± 0.2	1309 ± 5	i	2^-	0.017	0.013	$1p_{3/2}$
		1820 ± 10	i	(5^+)	0.35	0.32	$1g_{9/2}$
1843.4 ± 1.2	1843.5 ± 0.7	1845 ± 4	i	2^-	0.007	0.03	$2p_{3/2}$
		1970 ± 10	i	(3^-)	0.038	0.042	$1f_{7/2}$
	2043.7 ± 0.5	2044 ± 1	2	2^+	2.32	2.32	$1d_{5/2}$
2195.1 ± 1.5	2194.5 ± 0.6	2196 ± 1	2	3^+	0.55	0.50	$1d_{5/2}$
2863.7 ± 1.6		2871 ± 5	i		0.044		$1f_{7/2}$
2966.6 ± 1.7	2966.8 ± 0.6	2966 ± 1	2	3^+	0.38	0.36	$1d_{3/2}$
3171.8 ± 2.2	3175.6 ± 1.3	3176 ± 5	i		0.019	0.014	$1d_{5/2}$
	3488.5 ± 0.3	3489 ± 1	0	1^+		1.20	$2s_{1/2}$
3525.5 ± 2.6	3525.9 ± 0.5	3531 ± 3	0	0^+		0.28	$2s_{1/2}$
3586.4 ± 2.7	3586.5 ± 0.6	3590 ± 1	2	$\pi = +$	0.038	0.42	$1d_{3/2}$
3681.0 ± 2.5		3686 ± 4	2	$\pi = +$	0.031	≤ 0.04	$1d_{5/2}$
3760.8 ± 2.7			i		see ^d		
3964.5 ± 2.5		3977 ± 5	2	$\pi = +$	0.036	0.043	$1d_{5/2}$
4080.9 ± 2.5	4082.5 ± 0.8	4089 ± 3	$0 + 2$	$\pi = +$	0.13	0.18	$1s_{1/2}$
4198.9 ± 2.7							
4207.7 ± 2.6			i		0.083	0.10	$1d_{3/2}$
4276.3 ± 2.8		4282 ± 5	2	$\pi = +$			
4311.5 ± 2.6		4318 ± 5	0	$(0, 1)^+$			
4583.8 ± 3.0							
4592.2 ± 2.9							
4730.2 ± 2.9							
4763.8 ± 2.7							
4891.6 ± 2.8							
4898.2 ± 2.8							
5040.2 ± 3.1			1^j	$(0, 1, 2)^-$			
5065.5 ± 3.1							
5224.0 ± 3.1			1^j	$(0, 1, 2)^-$			
5281.0 ± 3.3			1^j	$(0, 1, 2)^-$			
5317.1 ± 2.7							
5344.5 ± 3.3							

Table 20.15 from (1978AJ03): States in ^{20}F from $^{19}\text{F}(\text{d}, \text{p})^{20}\text{F}$ (continued)

E_x (keV)			l_n ^{d,e}	J^π ^{d,e}	$(2J + 1)S$		
(1970RO06) ^a	(1969HO20) ^{b,c}	(1972FO11) ^a			$E_d = 12 \text{ MeV}$ ^d	16 MeV ^e	n, l, j ^h
5450.3 ± 3.8							
5455.4 ± 3.2							
5463.4 ± 3.3							
5620.3 ± 3.3							
5762.8 ± 3.4							
5809.1 ± 2.9							
5933.9 ± 3.3 ^f			1 ^j	(0, 1, 2) ⁻			
6015.0 ± 3.8 ^f			1 ^f	(0, 1, 2) ⁻			
6043.3 ± 3.7		g					

^a From measurements of proton groups.

^b From measurements of γ -rays.

^c (1969HE20) find $E_x = 655.4 \pm 0.5, 822.6 \pm 0.7, 983.4 \pm 0.7, 1055.2 \pm 0.6, 1308.0 \pm 0.9$ and 2964.5 ± 2.0 keV.

^d (1974FO21): $E_d = 12$ MeV.

^e (1972FO11): $E_d = 16$ MeV.

^f (1971RO06) find $E_x = 5932 \pm 5$ and 6013 ± 5 keV, respectively.

^g (1956EL1A) find additional transitions to states with $E_x = 6250, 6520, 6630, 6810, 6980$ and $7200 [\pm 20]$ keV: the last four involve $l_n = 1$.

^h For $(2J + 1)S$ values for other n, l, j , see (1974FO21).

ⁱ Weak states: see (1972FO11, 1974FO21).

^j (1956EL1A).