

$^{19}\text{F}({}^3\text{He,p}),({}^3\text{He,p}\gamma)$ 1975La06,1959Hi75

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	R. B. Firestone	NDS 127, 1 (2015)	15-Jan-2015

1975La06: $^{19}\text{F}({}^3\text{He,p}\gamma)$ $E({}^3\text{He})=3.5\text{-}7.0$ MeV. Measured $p\gamma$, $p\gamma(\theta)$. γ detectors at angles such that $\cos^2(\theta)$ ranged from 0 to 0.87. Particle detector at 0° and 180° with respect to the beam.

1959Hi75: $^{19}\text{F}({}^3\text{He,p})$. Values were systematically too low and increased by **1990En08**.

 ^{21}Ne Levels

<u>E(level)[†]</u>	<u>E(level)[†]</u>	<u>E(level)[†]</u>	<u>E(level)[†]</u>
0	5550	7354 10	8390 20
351	5691	7413 10	8424 10
1746	5823	7461 10	8457 10
2789	6169	7547 10	8500 20
2796	6265	7597 10	8576 10
2866	6447	7644 10	8642 10
3662	6850? 20	7740 10	8768 10
3734	6898 10	7805 10	8840 10
3883	7002 10	7964 [‡] 10	8908 10
4524	7039 10	8058 10	8959 10
4684	7104 10	8137 10	9061 10
4726	7148 [‡] 10	8174 10	9136 10
5334	7225 10	8229 10	
5430	7290 20	8275 10	
5525	7326 10	8345 10	

[†] From **1974La06** for $E < 6.8$ MeV, no ΔE reported, and from **1959Hi75** for $E > 6.8$ MeV.

[‡] Possible doublet.

 $\gamma(^{21}\text{Ne})$

<u>E_γ</u>	<u>I_γ</u>	<u>$E_i(\text{level})$</u>	<u>E_f</u>	<u>Mult.</u>	<u>δ</u>	<u>E_γ</u>	<u>I_γ</u>	<u>$E_i(\text{level})$</u>	<u>E_f</u>	<u>Mult.</u>	<u>δ</u>
221	4 1	3883	3662			2778	3 1	4524	1746		
873	41 3	3662	2789	M1+E2	-0.09 4	2796	100	2796	0		
965	11 3	5691	4726			2895	51 3	5691	2796		
1026	9 3	5550	4524			2957	56 6	5823	2866		
1094	0.4 2	3883	2789			3311	59 3	3662	351		
1120	64 3	2866	1746	M1+E2	-0.08 6	3383	14 3	3734	351		
1395	5 1	1746	351	M1+E2	-0.12 +11-5	3399	66 13	6265	2866	M1+E2	0.8 +7-5
1451	4 1	5334	3883			3532	67 3	3883	351		
1746	95 1	1746	0			3581	10	6447	2866		
1816	16 5	5550	3734			3684	19 3	5430	1746		
1888	4 2	4684	2796			3734	81 3	3734	0		
1923	90	6447	4524			3779	100	5525	1746		
1930	20 2	4726	2796			3883	28 3	3883	0		
1940	37 6	5823	3883			4077	7 2	5823	1746		
1988	5 3	3734	1746			4173	73 3	4524	351		
2382	5 3	6265	3883			4333	60 2	4684	351		
2435	36	6169	3734			4375	80 2	4726	351		
2468	8 2	5334	2866			4423	64	6169	1746		
2515	36 3	2866	351			4519	12 7	6265	1746		
2564	9 2	5430	2866			4524	24 3	4524	0		
2754	13 5	5550	2796			4684	36 2	4684	0		
2761	9 3	5550	2789			4983	88 2	5334	351		

Continued on next page (footnotes at end of table)

 ${}^{19}\text{F}({}^3\text{He,p}),({}^3\text{He,p}\gamma)$ **1975La06,1959Hi75 (continued)**

 $\gamma({}^{21}\text{Ne})$ (continued)

<u>E_γ</u>	<u>I_γ</u>	<u>$E_i(\text{level})$</u>	<u>E_f</u>	Comments
5079	72.4	5430	351	
5199	16.5	5550	351	
5550	37.8	5550	0	I_γ : From 1972Ro17 .
5691	38.3	5691	0	I_γ : From 1972Ro17 .
5914	17.9	6265	351	

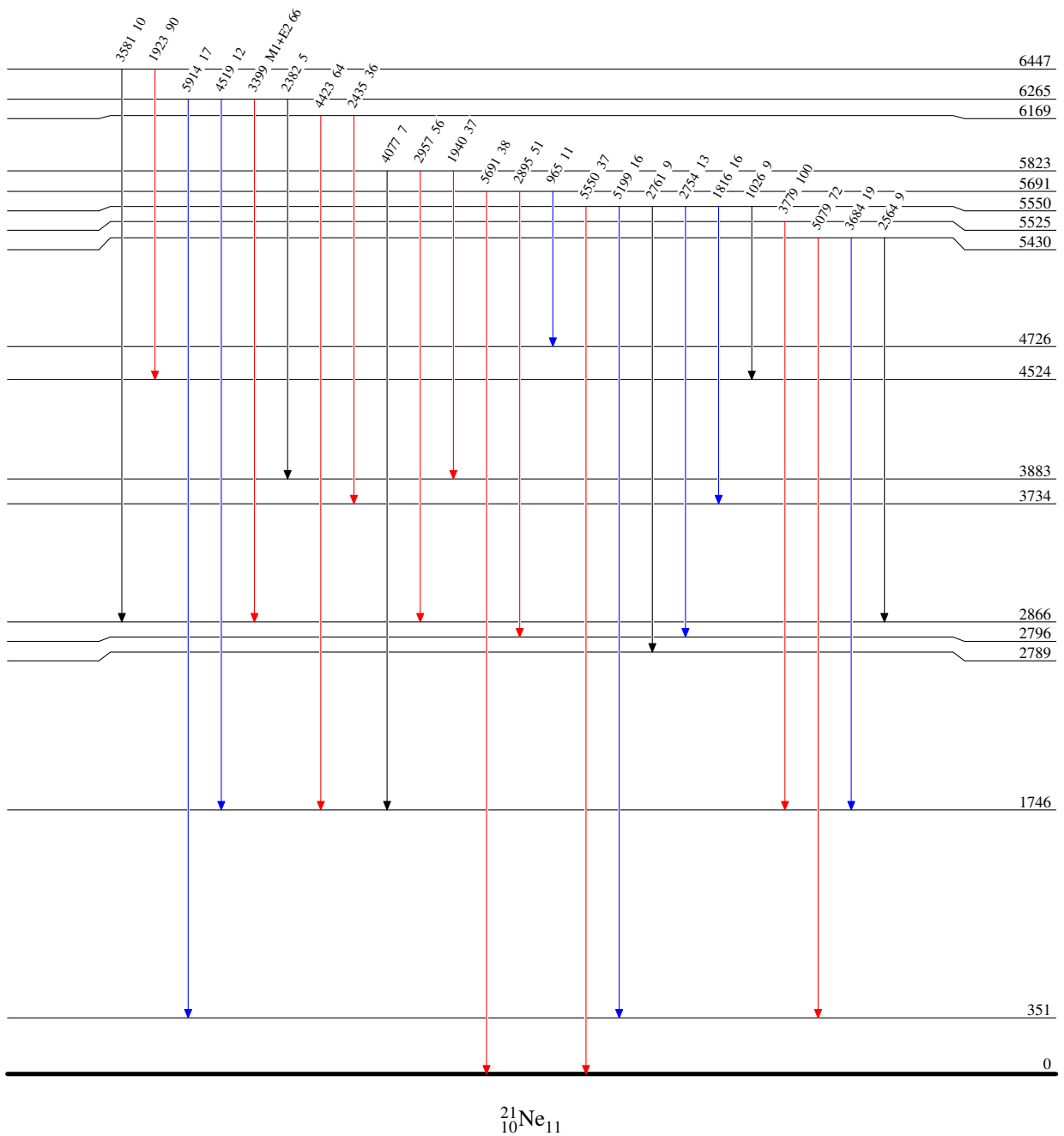
$^{19}\text{F}({}^3\text{He,p}),({}^3\text{He,p}\gamma)$ 1975La06,1959Hi75

Level Scheme

Intensities: Type not specified

Legend

- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$

 $^{21}_{10}\text{Ne}_{11}$

$^{19}\text{F}(^3\text{He,p})(^3\text{He,p}\gamma)$ 1975La06,1959Hi75

Level Scheme (continued)

Intensities: Type not specified

Legend

- $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

