Table 19.7 from (1978AJ03): Radiative transitions in $^{19}$F.

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<th>$E_1$ (MeV)</th>
<th>$J_i^p$</th>
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\(^a\) Mean values

\(\delta = 0.56 ± 0.13\)
Table 19.7 from (1978AJ03): Radiative transitions in $^{19}$F $^a$ (continued)

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2
Table 19.7 from (1978AJ03): Radiative transitions in $^{19}$F

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(continued)
Table 19.7 from (1978AJ03): Radiative transitions in $^{19}$F $^a$ (continued)

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<td>$\frac{1}{2}^-$</td>
<td>21 ± 5</td>
<td></td>
<td>(1965AL20)</td>
</tr>
<tr>
<td>1.55</td>
<td>$\frac{1}{2}^+$</td>
<td>0</td>
<td>$\frac{1}{2}^-$</td>
<td>19 ± 5</td>
<td></td>
<td>(1965AL20)</td>
</tr>
<tr>
<td>2.78</td>
<td>$\frac{1}{2}^+$</td>
<td>0</td>
<td>$\frac{1}{2}^-$</td>
<td>&lt; 1</td>
<td></td>
<td>(1965AL20)</td>
</tr>
<tr>
<td>3.91</td>
<td>$\frac{1}{2}^+$</td>
<td>0</td>
<td>$\frac{1}{2}^-$</td>
<td>18 ± 2</td>
<td></td>
<td>(1965AL20)</td>
</tr>
<tr>
<td>8.96 $^{ \text{b} }$</td>
<td>$\frac{3}{2}^+$</td>
<td>2.78</td>
<td>$\frac{3}{2}^-$</td>
<td>51 ± 3</td>
<td>$\Gamma_\gamma(\text{total}) = 230 \pm 30 \text{ meV}$</td>
<td>(1977FI06)</td>
</tr>
<tr>
<td>4.00</td>
<td>$\frac{3}{2}^+$</td>
<td>2.78</td>
<td>$\frac{3}{2}^-$</td>
<td>26 ± 3</td>
<td></td>
<td>(1977FI06)</td>
</tr>
<tr>
<td>4.03</td>
<td>$\frac{3}{2}^+$</td>
<td>2.78</td>
<td>$\frac{3}{2}^-$</td>
<td>8 ± 1</td>
<td></td>
<td>(1977FI06)</td>
</tr>
<tr>
<td>4.65</td>
<td>$\frac{3}{2}^+$</td>
<td>2.78</td>
<td>$\frac{3}{2}^-$</td>
<td>13 ± 2</td>
<td></td>
<td>(1977FI06)</td>
</tr>
<tr>
<td>5.43</td>
<td>$\frac{3}{2}^+$</td>
<td>2.78</td>
<td>$\frac{3}{2}^-$</td>
<td>3 ± 1</td>
<td></td>
<td>(1977FI06)</td>
</tr>
<tr>
<td>9.10</td>
<td>$\frac{3}{2}^+$ ; $T = \frac{4}{2}$</td>
<td>0.110</td>
<td>$\frac{3}{2}^+$</td>
<td>(&gt;) 0.5</td>
<td></td>
<td>(1965AL20)</td>
</tr>
<tr>
<td>0.197</td>
<td>$\frac{3}{2}^+$</td>
<td>0.110</td>
<td>$\frac{3}{2}^+$</td>
<td>11 ± 2</td>
<td></td>
<td>(1965AL20)</td>
</tr>
<tr>
<td>1.35</td>
<td>$\frac{3}{2}^+$</td>
<td>0.110</td>
<td>$\frac{3}{2}^+$</td>
<td>4 ± 1</td>
<td></td>
<td>(1965AL20)</td>
</tr>
<tr>
<td>2.78</td>
<td>$\frac{3}{2}^+$</td>
<td>0.110</td>
<td>$\frac{3}{2}^+$</td>
<td>64 ± 4 $^{ \text{k} }$</td>
<td></td>
<td>(1965AL20)</td>
</tr>
<tr>
<td>4.00</td>
<td>$\frac{3}{2}^+$</td>
<td>0.110</td>
<td>$\frac{3}{2}^+$</td>
<td>8 ± 2</td>
<td></td>
<td>(1965AL20)</td>
</tr>
<tr>
<td>5.43</td>
<td>$\frac{3}{2}^+$</td>
<td>0.110</td>
<td>$\frac{3}{2}^+$</td>
<td>(8 ± 2)</td>
<td></td>
<td>(1965AL20)</td>
</tr>
<tr>
<td>6.07</td>
<td>$\frac{3}{2}^+$</td>
<td>0.110</td>
<td>$\frac{3}{2}^+$</td>
<td>(5 ± 2)</td>
<td></td>
<td>(1965AL20)</td>
</tr>
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<td>9.32</td>
<td>$\frac{1}{2}^+$</td>
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<td>$\frac{1}{2}^+$</td>
<td>86 ± 4</td>
<td></td>
<td>(1962NE03)</td>
</tr>
<tr>
<td>0.110</td>
<td>$\frac{1}{2}^+$</td>
<td>0</td>
<td>$\frac{1}{2}^+$</td>
<td>4 ± 2</td>
<td></td>
<td>(1962NE03)</td>
</tr>
<tr>
<td>0.197</td>
<td>$\frac{1}{2}^+$</td>
<td>0</td>
<td>$\frac{1}{2}^+$</td>
<td>10 ± 2</td>
<td></td>
<td>(1962NE03)</td>
</tr>
<tr>
<td>9.87</td>
<td>$\frac{1}{2}^-$</td>
<td>2.78</td>
<td>$\frac{1}{2}^+$</td>
<td>68 ± 2</td>
<td>$\Gamma_\gamma = 0.58 \pm 0.08 \text{ eV}$</td>
<td>(1977FI06)</td>
</tr>
<tr>
<td>4.00</td>
<td>$\frac{1}{2}^-$</td>
<td>2.78</td>
<td>$\frac{1}{2}^+$</td>
<td>6 ± 1</td>
<td></td>
<td>(1977FI06)</td>
</tr>
<tr>
<td>4.03</td>
<td>$\frac{1}{2}^-$</td>
<td>2.78</td>
<td>$\frac{1}{2}^+$</td>
<td>24 ± 2</td>
<td></td>
<td>(1977FI06)</td>
</tr>
<tr>
<td>4.65</td>
<td>$\frac{1}{2}^-$</td>
<td>2.78</td>
<td>$\frac{1}{2}^+$</td>
<td>2.5 ± 0.6</td>
<td></td>
<td>(1977FI06)</td>
</tr>
<tr>
<td>10.136 $^{ \text{i} }$</td>
<td>$\frac{3}{2}^-$</td>
<td>0</td>
<td>$\frac{3}{2}^+$</td>
<td>84 ± 3</td>
<td></td>
<td>(1962NE03)</td>
</tr>
<tr>
<td>0.110</td>
<td>$\frac{3}{2}^-$</td>
<td>0</td>
<td>$\frac{3}{2}^+$</td>
<td>4 ± 2</td>
<td></td>
<td>(1962NE03)</td>
</tr>
<tr>
<td>0.197</td>
<td>$\frac{3}{2}^-$</td>
<td>0</td>
<td>$\frac{3}{2}^+$</td>
<td>12 ± 2</td>
<td></td>
<td>(1962NE03)</td>
</tr>
<tr>
<td>10.41</td>
<td>$\frac{1}{2}^+$</td>
<td>2.78</td>
<td>$\frac{1}{2}^+$</td>
<td>(98)</td>
<td>$\Gamma_\gamma = 1.1 \pm 0.1 \text{ eV}$</td>
<td>(1977SY1A)</td>
</tr>
<tr>
<td>11.217</td>
<td>$\frac{1}{2}^+$</td>
<td>2.78</td>
<td>$\frac{1}{2}^+$</td>
<td>(98)</td>
<td>$\Gamma_\gamma = 1.1 \pm 0.1 \text{ eV}$</td>
<td>(1977SY1A)</td>
</tr>
</tbody>
</table>
A = adopted.

\[ a \] See also Table 19.9 in (1972AJ02) and Tables 19.8, 19.10, 19.15 and 19.20 here.

\[ b \] See also (1965AL20).

\[ c \] \( \Gamma_\gamma/\Gamma = 0.91 \pm 0.05 \) (1976RO07).

\[ d \] See also (1972LE20).

\[ e \] \( \Gamma_\gamma/\Gamma = 0.76 \pm 0.15 \) (1976RO07).

\[ f \] See also (1970AI01).

\[ g \] \( \Gamma_\gamma = 4.7 \text{ eV} \). \( \Gamma_\gamma/\Gamma = 0.65 \pm 0.10 \); see Table 19.9 in (1972AJ02).

\[ h \] See also (1974UN01).

\[ i \] See also (1971WO12, 1972WO15).

\[ j \] Strong decay to \( ^{19}\text{F}^*(4.65, 6.50) \) \( [J^e = \frac{13}{2}^+, \frac{11}{2}^+, \text{respectively}] \). Weak decay to \( ^{19}\text{F}^*(2.78) \) \( [\frac{9}{2}^+] \); from \((\alpha, \gamma)\) measurement \( \delta = 0.08 \pm 0.08 \) if \( J = \frac{13}{2} \), \( 0.47 \pm 0.06 \) if \( J = \frac{11}{2} \). If \( ^{19}\text{F}^*(10.41), J = \frac{13}{2}, |M|^2(M1) = 0.010 \pm 0.003, 0.46 \pm 0.10 \) and \( 0.18 \pm 0.03 \) W.u. for the transitions to \( ^{19}\text{F}^*(2.78, 4.65, 6.50) \) and \( |M|^2(\text{E2}) = 25 \pm 7 \) W.u. for transition to \( ^{19}\text{F}^*(4.65) \) (1976SY01).

\[ k \] \( \Gamma_\gamma = 0.84 \pm 0.19 \) eV. Total \( \Gamma_\gamma(9.10) = 1.31 \pm 0.31 \) eV.

\[ l \] See also Table 19.8.