

Adopted Levels, Gammas

| Type            | Author                            | History | Citation         | Literature Cutoff Date |
|-----------------|-----------------------------------|---------|------------------|------------------------|
| Full Evaluation | Tilley, Weller, Cheves, Chasteler |         | NP A595,1 (1995) | 31-Oct-1994            |

$Q(\beta^-) = -4444.5$  6;  $S(n) = 9149.9$  6;  $S(p) = 5607.1$  5;  $Q(\alpha) = -4415.2$  5 [2012Wa38](#)

Note: Current evaluation has used the following Q record  $-4445.7$  479149.60 645606.54 56

[1993Au05](#).

 $^{18}\text{F}$  LevelsCross Reference (XREF) Flags

|                   |                                                                           |                   |                                                                             |                                                                  |
|-------------------|---------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------|
| <a href="#">A</a> | $^{18}\text{F} \beta^+$ decay                                             | <a href="#">N</a> | $^{16}\text{O}(d,\gamma)$                                                   | Others:                                                          |
| <a href="#">B</a> | $^{10}\text{B}(^9\text{Be},n), ^{11}\text{B}(^9\text{Be},2n)$             | <a href="#">O</a> | $^{16}\text{O}(d,n), (d,p)$                                                 | <a href="#">AA</a> $^{17}\text{O}(\alpha,t)$                     |
| <a href="#">C</a> | $^{12}\text{C}(^9\text{Be},t)$                                            | <a href="#">P</a> | $^{16}\text{O}(d,d)$                                                        | <a href="#">AB</a> $^{17}\text{O}(^{12}\text{C}, ^{11}\text{B})$ |
| <a href="#">D</a> | $^{12}\text{C}(^{11}\text{B},an)$                                         | <a href="#">Q</a> | $^{16}\text{O}(d,\alpha)$                                                   | <a href="#">AC</a> $^{18}\text{O}(p,n)$                          |
| <a href="#">E</a> | $^{14}\text{N}(\alpha,\gamma)$                                            | <a href="#">R</a> | $^{16}\text{O}(t,n)$                                                        | <a href="#">AD</a> $^{18}\text{O}(^3\text{He},t)$                |
| <a href="#">F</a> | $^{14}\text{N}(\alpha,p)$                                                 | <a href="#">S</a> | $^{16}\text{O}(^3\text{He},p)$                                              | <a href="#">AE</a> $^{18}\text{O}(^6\text{Li}, ^6\text{He})$     |
| <a href="#">G</a> | $^{14}\text{N}(\alpha,\alpha), (\alpha,2\alpha), (\alpha,^6\text{Li})$    | <a href="#">T</a> | $^{16}\text{O}(\alpha,d)$                                                   | <a href="#">AF</a> $^{18}\text{Ne} \beta^+$ decay                |
| <a href="#">H</a> | $^{14}\text{N}(^6\text{Li},d), (^6\text{Li},d\alpha)$                     | <a href="#">U</a> | $^{16}\text{O}(^6\text{Li},\alpha)$                                         | <a href="#">AG</a> $^{19}\text{F}(\gamma,n)$                     |
| <a href="#">I</a> | $^{14}\text{N}(^7\text{Li},t)$                                            | <a href="#">V</a> | $^{16}\text{O}(^{11}\text{B}, ^9\text{Be}), (^{13}\text{C}, ^{11}\text{B})$ | <a href="#">AH</a> $^{19}\text{F}(p,d)$                          |
| <a href="#">J</a> | $^{14}\text{N}(^{11}\text{B}, ^7\text{Li}), (^{13}\text{C}, ^9\text{Be})$ | <a href="#">W</a> | $^{17}\text{O}(p,\gamma)$                                                   | <a href="#">AI</a> $^{19}\text{F}(d,t)$                          |
| <a href="#">K</a> | $^{15}\text{N}(^3\text{He},\gamma), (^3\text{He},\alpha)$                 | <a href="#">X</a> | $^{17}\text{O}(p,p)$                                                        | <a href="#">AJ</a> $^{19}\text{F}(^3\text{He},\alpha)$           |
| <a href="#">L</a> | $^{15}\text{N}(^6\text{Li},t)$                                            | <a href="#">Y</a> | $^{17}\text{O}(p,\alpha)$                                                   | <a href="#">AK</a> $^{20}\text{Ne}(p, ^3\text{He})$              |
| <a href="#">M</a> | $^{15}\text{N}(^{11}\text{B}, ^8\text{Li}), (^{12}\text{C}, ^9\text{Be})$ | <a href="#">Z</a> | $^{17}\text{O}(^3\text{He},d)$                                              | <a href="#">AL</a> $^{20}\text{Ne}(d,\alpha)$                    |

| E(level)   | $J^\pi$ | $T_{1/2}$    | XREF                                                                                                                                                  | Comments                                                                                                                                                                                                                                                                                            |
|------------|---------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.0        | $1^+$   | 109.77 min 5 | <a href="#">A</a> <a href="#">CDE</a> <a href="#">HI</a> <a href="#">KL</a> <a href="#">N</a> <a href="#">S</a> <a href="#">UVW</a> <a href="#">Y</a> | XREF: Others: <a href="#">AA</a> , <a href="#">AC</a> , <a href="#">AD</a> , <a href="#">AE</a> , <a href="#">AF</a> , <a href="#">AG</a> , <a href="#">AH</a> , <a href="#">AI</a> , <a href="#">AJ</a> , <a href="#">AK</a> , <a href="#">AL</a><br>$\%e + \% \beta^+ = 100$<br>$T=0$             |
| 937.20 6   | $3^+$   | 46.9 ps 17   | <a href="#">B</a> <a href="#">E</a> <a href="#">HI</a> <a href="#">L</a> <a href="#">S</a> <a href="#">U</a> <a href="#">W</a> <a href="#">Z</a>      | $T_{1/2}$ : From <a href="#">1989Sc17</a> . Other: 109.87 min 12 ( <a href="#">1965Eb01</a> ).<br>XREF: Others: <a href="#">AA</a> , <a href="#">AD</a> , <a href="#">AE</a> , <a href="#">AG</a> , <a href="#">AH</a> , <a href="#">AI</a> , <a href="#">AJ</a> , <a href="#">AL</a><br>$\%IT=100$ |
| 1041.55 8  | $0^+$   | 1.77 fs 31   | <a href="#">E</a> <a href="#">H</a> <a href="#">S</a> <a href="#">W</a> <a href="#">Z</a>                                                             | $T=0$ ; $g=0.56$ 5<br>XREF: Others: <a href="#">AA</a> , <a href="#">AC</a> , <a href="#">AD</a> , <a href="#">AF</a> , <a href="#">AG</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AK</a><br>$\%IT=100$                                                                             |
| 1080.54 12 | $0^-$   | 19.1 ps 13   | <a href="#">E</a> <a href="#">HI</a> <a href="#">S</a> <a href="#">W</a>                                                                              | $T=1$<br>XREF: Others: <a href="#">AD</a> , <a href="#">AF</a> , <a href="#">AG</a> , <a href="#">AH</a> , <a href="#">AI</a> , <a href="#">AJ</a> , <a href="#">AL</a><br>$\%IT=100$                                                                                                               |
| 1121.36 15 | $5^+$   | 162 ns 7     | <a href="#">DE</a> <a href="#">HI</a> <a href="#">LM</a> <a href="#">ST</a> <a href="#">W</a> <a href="#">Z</a>                                       | $T=0$<br>XREF: Others: <a href="#">AA</a> , <a href="#">AB</a> , <a href="#">AD</a> , <a href="#">AF</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a><br>$\%IT=100$                                                                                                               |
| 1700.81 18 | $1^+$   | 662 fs 19    | <a href="#">E</a> <a href="#">I</a> <a href="#">S</a> <a href="#">W</a>                                                                               | $T=0$<br>XREF: Others: <a href="#">AC</a> , <a href="#">AD</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AK</a> , <a href="#">AL</a><br>$\%IT=100$                                                                                                                                    |
| 2100.61 10 | $2^-$   | 3.5 ps 3     | <a href="#">E</a> <a href="#">I</a> <a href="#">L</a> <a href="#">S</a> <a href="#">U</a> <a href="#">W</a>                                           | $T=0$<br>XREF: Others: <a href="#">AD</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a><br>$\%IT=100$                                                                                                                                                                              |
| 2523.35 18 | $2^+$   | 408 fs 17    | <a href="#">E</a> <a href="#">I</a> <a href="#">S</a> <a href="#">W</a> <a href="#">Z</a>                                                             | $T=0$<br>XREF: Others: <a href="#">AA</a> , <a href="#">AH</a> , <a href="#">AJ</a><br>$\%IT=100$                                                                                                                                                                                                   |
| 3061.84 18 | $2^+$   | <0.83 fs     | <a href="#">E</a> <a href="#">S</a> <a href="#">W</a> <a href="#">Z</a>                                                                               | $T=0$<br>XREF: Others: <a href="#">AA</a> , <a href="#">AD</a> , <a href="#">AG</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AK</a><br>$\%IT=100$                                                                                                                                    |
| 3133.87 15 | $1^-$   | 0.27 ps 1    | <a href="#">E</a> <a href="#">I</a> <a href="#">S</a> <a href="#">W</a>                                                                               | $T=1$<br>XREF: Others: <a href="#">AD</a> , <a href="#">AG</a> , <a href="#">AH</a> , <a href="#">AJ</a>                                                                                                                                                                                            |

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**Adopted Levels, Gammas (continued)**

| <sup>18</sup> F Levels (continued) |                  |                  |      |      |         |                                                                                                                                                             |
|------------------------------------|------------------|------------------|------|------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| E(level)                           | J <sup>π</sup>   | T <sub>1/2</sub> | XREF |      |         | Comments                                                                                                                                                    |
| 3358.2 10                          | 3 <sup>+</sup>   | 0.30 ps 2        | E    | I    | S       | %IT=100<br>T=0<br>XREF: Others: <a href="#">AD</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a>                                           |
| 3724.19 22                         | 1 <sup>+</sup>   | 1.9 fs 28        | E    | I    | S U W   | %IT=100<br>T=0<br>XREF: Others: <a href="#">AA</a> , <a href="#">AC</a> , <a href="#">AD</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a> |
| 3791.49 22                         | 3 <sup>-</sup>   | 1.32 ps 9        | D    | I    | S U W   | %IT=100<br>T=0<br>XREF: Others: <a href="#">AD</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a>                                           |
| 3839.17 22                         | 2 <sup>+</sup>   | 13.2 fs 19       | E    | I    | S U W Z | %IT=100<br>T=0<br>XREF: Others: <a href="#">AD</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a>                                           |
| 4115.90 25                         | 3 <sup>+</sup>   | 63 fs 15         | E    | I    | S U W Z | %IT=100<br>T=0<br>XREF: Others: <a href="#">AA</a> , <a href="#">AD</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a>                      |
| 4225.8 7                           | 2 <sup>-</sup>   | 76 fs 10         | E    | I    | S U     | %IT=100<br>T=0<br>XREF: Others: <a href="#">AD</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a>                                           |
| 4360.15 26                         | 1 <sup>+</sup>   | 19 fs 7          |      | I    | S W     | %IT=100<br>T=0<br>XREF: Others: <a href="#">AC</a> , <a href="#">AD</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a>                      |
| 4398.1 7                           | 4 <sup>-</sup>   | 40 fs 8          | E    | I LM | S       | %IT=100<br>T=0<br>XREF: Others: <a href="#">AD</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a>                                           |
| 4652 2                             | 4 <sup>+</sup>   | <7 fs            | E    |      | S V Z   | %IT=100<br>T=0<br>XREF: Others: <a href="#">AA</a> , <a href="#">AD</a> , <a href="#">AH</a> , <a href="#">AJ</a>                                           |
| 4753 3                             | 0 <sup>+</sup>   |                  |      |      | S       | %IT=100<br>T=1<br>XREF: Others: <a href="#">AD</a> , <a href="#">AG</a> , <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a>                      |
| 4848.3 5                           | 5 <sup>-</sup>   | 3.6 ps 6         | D    |      | U       | %IT=100<br>T=0<br>XREF: Others: <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a>                                                                |
| 4860 2                             | 1 <sup>-</sup>   | 46 fs 12         | E    |      | S       | %IT=?; %α=?<br>T=0<br>XREF: Others: <a href="#">AH</a> , <a href="#">AJ</a>                                                                                 |
| 4963.6 8                           | 2 <sup>+</sup>   | <3 fs            | E    |      | S Z     | %IT=100<br>T=0<br>XREF: Others: <a href="#">AH</a> , <a href="#">AJ</a>                                                                                     |
| 5297.6 15                          | 4 <sup>+</sup>   | 21 fs 3          | E    | HIJ  | S       | %IT=?; %α=?<br>T=1<br>XREF: Others: <a href="#">AH</a> , <a href="#">AJ</a>                                                                                 |
| 5502 2                             | 3 <sup>(-)</sup> | 44 fs 17         | E    | I    | S       | %IT=?; %α=?<br>T=0<br>XREF: Others: <a href="#">AH</a> , <a href="#">AJ</a>                                                                                 |
| 5603.38 27                         | 1 <sup>+</sup>   | 43.3 eV 16       | E    | G    | W       | %IT=?; %α=?<br>T=0<br>XREF: Others: <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a>                                                            |
| 5604.86 28                         | 1 <sup>-</sup>   | <1.2 keV         | E    | G I  | S W     | %IT=?; %α=?<br>T=0<br>XREF: Others: <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a>                                                            |
| 5672.57 32                         | 1 <sup>-</sup>   | <0.8 keV         | E    | G I  | S W     | %IT=?; %α=?<br>T=0,1<br>XREF: Others: <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a>                                                          |
| 5786 2                             | 2 <sup>-</sup>   | 10 fs 7          | E    |      | S       | %IT=?; %α=?<br>T=0,1<br>XREF: Others: <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a>                                                          |

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**Adopted Levels, Gammas (continued)** $^{18}\text{F}$  Levels (continued)

| E(level)   | J <sup>π</sup>                   | T <sub>1/2</sub> | XREF |      |   |       | Comments                                                                                                              |
|------------|----------------------------------|------------------|------|------|---|-------|-----------------------------------------------------------------------------------------------------------------------|
| 6096.4 11  | 4 <sup>-</sup>                   | 0.24 keV 3       | E    | I    | S | W Y   | %IT=?; %α=?<br>T=0<br>XREF: Others: <a href="#">AH</a> , <a href="#">AJ</a> , <a href="#">AL</a><br>%IT=?; %p=?; %α=? |
| 6108 3     | (1 <sup>+</sup> )                | 0.034 keV 3      | E    | G    | S | U W Y | T=0<br>XREF: Others: <a href="#">AJ</a> , <a href="#">AL</a><br>%IT=?; %p=?; %α=?                                     |
| 6136.47 33 | 0 <sup>+</sup>                   | <1 keV           |      |      | S | WX    | T=0<br>XREF: Others: <a href="#">AJ</a> , <a href="#">AL</a><br>%IT=?; %p=?                                           |
| 6163.2 9   | 3 <sup>+</sup>                   | 14.0 keV 5       |      |      | S | WX    | T=1<br>XREF: Others: <a href="#">AJ</a> , <a href="#">AL</a><br>%IT=?; %p=?; %α=?                                     |
| 6240.4 8   | 3 <sup>-</sup>                   | 0.19 keV 3       | E    |      | S | WXY   | T=1<br>XREF: Others: <a href="#">AJ</a><br>%IT=?; %p=?; %α=?                                                          |
| 6242 3     | 3 <sup>-</sup>                   | 0.18 keV 4       | E    | G    | S | W Y   | T=0,1<br>XREF: Others: <a href="#">AJ</a><br>%IT=?; %p=?; %α=?                                                        |
| 6262 3     | 1 <sup>+</sup>                   | 0.60 keV 12      | E    | G I  | S | Y     | T=0,1<br>XREF: Others: <a href="#">AC</a> , <a href="#">AJ</a><br>%IT=?; %p=?; %α=?                                   |
| 6283.2 9   | 2 <sup>+</sup>                   | 10.0 keV 5       |      |      | S | WXY   | T=0<br>%IT=?; %p=?; %α=?                                                                                              |
| 6310.5 8   | 3 <sup>+</sup>                   | 0.95 keV 14      | E    |      | S | WXY   | T=1<br>XREF: Others: <a href="#">AL</a><br>%IT=?; %p=?; %α=?                                                          |
| 6385.5 17  | 2 <sup>+</sup>                   | 0.49 keV 9       | E    |      | S | W Y   | T=0<br>XREF: Others: <a href="#">AJ</a><br>%IT=?; %p=?; %α=?                                                          |
| 6484.9 15  | 3 <sup>+</sup>                   | 0.40 keV 10      | E    |      | S | W Y   | T=0,1<br>XREF: Others: <a href="#">AJ</a> , <a href="#">AL</a><br>%IT=?; %p=?; %α=?                                   |
| 6567.0 15  | 5 <sup>+</sup>                   | 0.56 keV 13      | E    | GHIJ | S | Y     | T=0<br>XREF: Others: <a href="#">AJ</a><br>%IT=?; %p=?; %α=?                                                          |
| 6633 10    | 1                                | 80 keV 2         |      |      |   | Y     | T=0<br>XREF: Others: <a href="#">AJ</a><br>%p=?; %α=?                                                                 |
| 6643.7 8   | 2 <sup>-</sup>                   | 0.60 keV 7       | EF   |      | S | W Y   | %IT=?; %p=?; %α=?<br>T=1                                                                                              |
| 6647 4     | 1 <sup>-</sup>                   | 91 keV 4         |      | G I  |   | Y     | %p=?; %α=?                                                                                                            |
| 6777 1     | 4 <sup>+</sup>                   | 9.2 keV 10       |      |      | S | WXY   | XREF: Others: <a href="#">AJ</a><br>%p=?; %α=?                                                                        |
| 6803.1 15  | 1 <sup>+</sup> ,2,3 <sup>+</sup> | <2 keV           |      | I    | S | WX    | T=0<br>XREF: Others: <a href="#">AJ</a><br>%IT=?; %p=?                                                                |
| 6809 5     | 2 <sup>-</sup>                   | 88 keV 2         | FG   |      |   | Y     | T=0<br>%p=?; %α=?                                                                                                     |
| 6811       | (2 <sup>+</sup> )                | 3.0 keV 5        |      |      |   | Y     | %p=?; %α=?                                                                                                            |
| 6857 10    | (3 <sup>-</sup> )                | 5.0 keV 10       |      |      |   | Y     | XREF: Others: <a href="#">AJ</a><br>%p=?; %α=?                                                                        |
| 6877.4 17  | 3,4 <sup>-</sup>                 | <2 keV           |      |      | S | W Y   | %IT=?; %p=?; %α=?<br>T=0                                                                                              |
| 7201 2     | (4 <sup>+</sup> )                | 6.5 keV          | G    |      | R |       | XREF: Others: <a href="#">AJ</a>                                                                                      |

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**Adopted Levels, Gammas (continued)** $^{18}\text{F}$  Levels (continued)

| E(level) | J $\pi$                        | T <sub>1/2</sub> | XREF |     | Comments                                       |
|----------|--------------------------------|------------------|------|-----|------------------------------------------------|
|          |                                |                  |      |     | %p=?; % $\alpha$ =?<br>T=0                     |
| 7247 2   | (1 <sup>+</sup> )              | 46.5 keV         | G    | Y   | %p=?; % $\alpha$ =?<br>T=0                     |
| 7291 2   | 3 <sup>-</sup>                 | 38 keV           | FG   | XY  | %p=?; % $\alpha$ =?                            |
| 7315 4   | (3 <sup>-</sup> )              | 52 keV           |      | Y   | XREF: Others: AJ<br>%p=?; % $\alpha$ =?<br>T=0 |
| 7336 2   | 1 <sup>-</sup>                 | 16 keV 2         |      | WX  | %IT=?; %p=?<br>T=1                             |
| 7406 2   | 1 <sup>+</sup>                 | 14.6 keV 14      |      | X   | %p=100                                         |
| 7447 10  |                                | 140 keV          |      | Y   | XREF: Others: AA<br>%p=?; % $\alpha$ =?        |
| 7454 2   | 1 <sup>-</sup>                 | 6 keV            |      | X   | %p=100                                         |
| 7478 2   | (2)                            | 12 keV 3         |      | WXY | %IT=?; %p=?; % $\alpha$ =?                     |
| 7485 2   | (1 <sup>-</sup> )              | 32 keV           |      | X   | %p=100<br>Level uncertain.                     |
| 7506 2   | 4 <sup>-</sup>                 | 12 keV 2         |      | XY  | %p=?; % $\alpha$ =?                            |
| 7513 2   |                                | <4 keV           |      | W   | %IT=?; %p=?                                    |
| 7528 2   | 2 <sup>-</sup>                 | 16.5 keV 30      |      | WXY | %IT=?; %p=?; % $\alpha$ =?<br>T=1              |
| 7532 5   |                                | 75 keV           |      | XY  | %p=?; % $\alpha$ =?                            |
| 7555 2   | (1 <sup>-</sup> )              | 30 keV           |      | X   | %p=100                                         |
| 7584 2   |                                | 9 keV 2          |      | WXY | %IT=?; %p=?; % $\alpha$ =?                     |
| 7685 2   | 3 <sup>+</sup> ,4 <sup>+</sup> | 36 keV 4         |      | XY  | %p=?; % $\alpha$ =?                            |
| 7729 4   | $\geq 1$                       | 66 keV 5         |      | XY  | %p=?; % $\alpha$ =?                            |
| 7763 4   |                                | 70 keV           |      | X   | %p=100                                         |
| 7878 3   | $\geq 2$                       | 20 keV           |      | XY  | %p=?; % $\alpha$ =?                            |
| 7899 2   | (2 <sup>-</sup> )              | 38 keV           | FG   | Y   | %p=?; % $\alpha$ =?                            |
| 7941 12  | (1 <sup>+</sup> )              | 112 keV          | FG   | Y   | %p=?; % $\alpha$ =?                            |
| 8064 6   | $\geq 4$                       | 60 keV           |      | XY  | %p=?; % $\alpha$ =?                            |
| 8115 8   |                                | 96 keV           |      | X   | %p=100                                         |
| 8209 2   | 2 <sup>-</sup>                 | 52 keV           |      | XY  | %p=?; % $\alpha$ =?                            |
| 8238 2   | 4 <sup>+</sup>                 | 20 keV           |      | X   | %p=100                                         |
| 9020     | (5 <sup>-</sup> )              |                  |      |     | XREF: Others: AA<br>T=1                        |
| 9207 15  | 3,4 <sup>-</sup>               |                  | OPQ  |     | %p=?; % $\alpha$ =?<br>T=0<br>%D=?             |
| 9500     | 2,3 <sup>+</sup>               |                  | O Q  |     | %n=?; % $\alpha$ =?<br>T=0<br>%D=?             |
| 9580 20  | 6 <sup>+</sup>                 |                  | HIJ  | T   | XREF: Others: AA<br>% $\alpha$ =?<br>%D=?      |
| 10580 50 |                                |                  | J    |     | % $\alpha$ =?                                  |
| 11220 30 | 7 <sup>+</sup>                 |                  | HIJ  |     | %D=?                                           |
| 12750    | (6 <sup>-</sup> )              |                  |      |     | XREF: Others: AA<br>T=1                        |
| 13830    | 4 <sup>-</sup> ,5 <sup>+</sup> | 60 keV           |      | Q   | % $\alpha$ =?<br>%D=?                          |
| 14020    | 4 <sup>-</sup> ,5 <sup>+</sup> | 60 keV           |      | Q   | % $\alpha$ =?<br>%D=?                          |
| 14100    | 4 <sup>-</sup> ,5 <sup>+</sup> | 60 keV           |      | Q   | % $\alpha$ =?<br>%D=?                          |

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**Adopted Levels, Gammas (continued)**

| $^{18}\text{F}$ Levels (continued) |                                                |                          |      |                         |  |
|------------------------------------|------------------------------------------------|--------------------------|------|-------------------------|--|
| E(level)                           | $J^\pi$                                        | $T_{1/2}$                | XREF | Comments                |  |
| 14180 40                           | (8 <sup>+</sup> )                              |                          | HIJ  | % $\alpha$ =?           |  |
| 14650                              | (7 <sup>+</sup> )                              |                          |      | %D=?                    |  |
| 15090                              | 4 <sup>-</sup> ,5 <sup>+</sup>                 |                          | Q    | XREF: Others: AA        |  |
|                                    |                                                |                          |      | % $\alpha$ =?           |  |
| 15340                              | 5 <sup>+</sup> ,6 <sup>-</sup>                 |                          | Q    | %D=?                    |  |
|                                    |                                                |                          |      | % $\alpha$ =?           |  |
| 1579 $\times 10^1$ 10              | (6 <sup>-</sup> )                              |                          | J    | %D=?                    |  |
|                                    |                                                |                          |      | XREF: Others: AA        |  |
| 16070                              | 4 <sup>-</sup> ,5 <sup>+</sup>                 | 220 keV                  | Q    | T=1                     |  |
|                                    |                                                |                          |      | % $\alpha$ =?           |  |
| 16720                              | 4 <sup>-</sup> ,5 <sup>+</sup>                 | 60 keV                   | Q    | %D=?                    |  |
|                                    |                                                |                          |      | % $\alpha$ =?           |  |
| 17430                              | 4 <sup>-</sup> ,5 <sup>+</sup> ,6 <sup>-</sup> | 70 keV                   | Q    | %D=?                    |  |
|                                    |                                                |                          |      | % $\alpha$ =?           |  |
| 1862 $\times 10^1$ 12              |                                                |                          | J    | %D=?                    |  |
| 1900 $\times 10^1$ 15              |                                                | 50 $\times 10^1$ keV 15  | K    | %IT=?                   |  |
|                                    |                                                |                          |      | %3HE=? level uncertain. |  |
| 2010 $\times 10^1$ 20              | (2 <sup>-</sup> )                              | 160 $\times 10^1$ keV 10 | K    | %IT=?                   |  |
|                                    |                                                |                          |      | T=1                     |  |
| 2270 $\times 10^1$ 20              | (2 <sup>-</sup> )                              | 120 $\times 10^1$ keV 10 | K    | %3HE=?                  |  |
|                                    |                                                |                          |      | %IT=?                   |  |
| 2410 $\times 10^1$ 20              |                                                | 140 $\times 10^1$ keV 30 | K    | T=1                     |  |
|                                    |                                                |                          |      | %3HE=?                  |  |
|                                    |                                                |                          |      | %IT=?                   |  |
|                                    |                                                |                          |      | %3HE=? level uncertain. |  |

 $\gamma(^{18}\text{F})$ 

| $E_i(\text{level})$ | $J_i^\pi$      | $E_\gamma$ | $I_\gamma$ | $E_f$   | $J_f^\pi$      | Mult.   | $\delta$ | Comments               |
|---------------------|----------------|------------|------------|---------|----------------|---------|----------|------------------------|
| 937.20              | 3 <sup>+</sup> | 937        | 100        | 0.0     | 1 <sup>+</sup> | E2      |          | B(E2)(W.u.)=5.8 2      |
| 1041.55             | 0 <sup>+</sup> | 1041       | 100        | 0.0     | 1 <sup>+</sup> | M1      |          | B(M1)(W.u.)=10.9 21    |
| 1080.54             | 0 <sup>-</sup> | 1081       | 100        | 0.0     | 1 <sup>+</sup> | E1      |          | B(E1)(W.u.)=0.000041 3 |
| 1121.36             | 5 <sup>+</sup> | 184        | 100        | 937.20  | 3 <sup>+</sup> | E2      |          | B(E2)(W.u.)=5.78 25    |
| 1700.81             | 1 <sup>+</sup> | 659        | 70.2 13    | 1041.55 | 0 <sup>+</sup> | M1      |          | B(M1)(W.u.)=0.0805 27  |
|                     |                | 1701       | 29.8 13    | 0.0     | 1 <sup>+</sup> | M1      |          | B(M1)(W.u.)=0.00200 11 |
| 2100.61             | 2 <sup>-</sup> | 1020       | 31 1       | 1080.54 | 0 <sup>-</sup> | E2      |          | B(E2)(W.u.)=16 2       |
|                     |                | 1164       | 31 1       | 937.20  | 3 <sup>+</sup> | E1      |          | B(E1)(W.u.)=0.000054 6 |
|                     |                | 2101       | 38 1       | 0.0     | 1 <sup>+</sup> | E1      |          | B(E1)(W.u.)=0.000011 1 |
| 2523.35             | 2 <sup>+</sup> | 822        | 3.9 6      | 1700.81 | 1 <sup>+</sup> | M1+E2   | 0.94 4   |                        |
|                     |                | 1586       | 21.5 12    | 937.20  | 3 <sup>+</sup> | M1+E2   | -1.5 6   |                        |
|                     |                | 2523       | 74.9 18    | 0.0     | 1 <sup>+</sup> | M1+E2   | 3.0 10   |                        |
| 3061.84             | 2 <sup>+</sup> | 2020       | 0.11 3     | 1041.55 | 0 <sup>+</sup> | E2      |          | B(E2)(W.u.)>8          |
|                     |                | 2125       | 76.7 8     | 937.20  | 3 <sup>+</sup> | M1      |          | B(M1)(W.u.)>2          |
|                     |                | 3061       | 23.2 8     | 0.0     | 1 <sup>+</sup> | M1      |          | B(M1)(W.u.)>0.2        |
| 3133.87             | 1 <sup>-</sup> | 1433       | 2.0 5      | 1700.81 | 1 <sup>+</sup> | E1+(M2) | 0.22 15  | B(E1)(W.u.)=0.000025 7 |
|                     |                | 2053       | 25 2       | 1080.54 | 0 <sup>-</sup> | M1      |          | B(M1)(W.u.)=0.0023 2   |
|                     |                | 2092       | 34 2       | 1041.55 | 0 <sup>+</sup> | E1      |          | B(E1)(W.u.)=0.00013 1  |
|                     |                | 3134       | 39 2       | 0.0     | 1 <sup>+</sup> | E1+(M2) | 0.07 5   | B(E1)(W.u.)=0.000046 4 |
| 3358.2              | 3 <sup>+</sup> | 835        | 6 3        | 2523.35 | 2 <sup>+</sup> | M1+(E2) | -0.4 5   | B(M1)(W.u.)=0.0074 37  |
|                     |                | 1257       | <3         | 2100.61 | 2 <sup>-</sup> |         |          |                        |
|                     |                | 1657       | 40 4       | 1700.81 | 1 <sup>+</sup> | E2      |          | B(E2)(W.u.)=21 3       |
|                     |                | 2421       | 9 3        | 937.20  | 3 <sup>+</sup> | M1      |          | B(M1)(W.u.)=0.00047 17 |
|                     |                | 3358       | 45 5       | 0.0     | 1 <sup>+</sup> | E2      |          | B(E2)(W.u.)=0.69 9     |

Continued on next page (footnotes at end of table)

**Adopted Levels, Gammas (continued)**

| $\gamma(^{18}\text{F})$ (continued) |                  |            |            |         |                |         |          |                                            |
|-------------------------------------|------------------|------------|------------|---------|----------------|---------|----------|--------------------------------------------|
| $E_i(\text{level})$                 | $J_i^\pi$        | $E_\gamma$ | $I_\gamma$ | $E_f$   | $J_f^\pi$      | Mult.   | $\delta$ | Comments                                   |
| 3724.19                             | 1 <sup>+</sup>   | 662        | 4 2        | 3061.84 | 2 <sup>+</sup> |         |          |                                            |
|                                     |                  | 2682       | 91 2       | 1041.55 | 0 <sup>+</sup> |         |          |                                            |
|                                     |                  | 3724       | 5 2        | 0.0     | 1 <sup>+</sup> |         |          |                                            |
| 3791.49                             | 3 <sup>-</sup>   | 730        | 30 3       | 3061.84 | 2 <sup>+</sup> | E1+(M2) | -0.09 9  | B(E1)(W.u.)=0.0006 3                       |
|                                     |                  | 1269       | 2.2 11     | 2523.35 | 2 <sup>+</sup> | E1      |          | B(E1)(W.u.)=0.000008 4                     |
|                                     |                  | 1691       | 68 4       | 2100.61 | 2 <sup>-</sup> | M1+E2   | -0.22 6  |                                            |
| 3839.17                             | 2 <sup>+</sup>   | 777        | 50 3       | 3061.84 | 2 <sup>+</sup> | M1+(E2) | -0.1 3   | B(M1)(W.u.)=1.7 3                          |
|                                     |                  | 2138       | 3.0 10     | 1700.81 | 1 <sup>+</sup> | M1      |          | B(M1)(W.u.)=0.0049 2                       |
|                                     |                  | 2902       | 8.9 14     | 937.20  | 3 <sup>+</sup> | M1+(E2) | -0.3 3   | B(M1)(W.u.)=0.0060 12                      |
|                                     |                  | 3839       | 38 2       | 0.0     | 1 <sup>+</sup> | M1+E2   | -1.8 5   |                                            |
| 4115.90                             | 3 <sup>+</sup>   | 1054       | 95 3       | 3061.84 | 2 <sup>+</sup> | M1+(E2) | 0.06 7   | B(M1)(W.u.)=0.28 7                         |
|                                     |                  | 4116       | 5 3        | 0.0     | 1 <sup>+</sup> | E2      |          | B(E2)(W.u.)=0.15 4                         |
| 4225.8                              | 2 <sup>-</sup>   | 1092       | 0.9 6      | 3133.87 | 1 <sup>-</sup> | M1      |          | B(M1)(W.u.)=0.0020 15                      |
|                                     |                  | 2125       | 15 5       | 2100.61 | 2 <sup>-</sup> | M1      |          | B(M1)(W.u.)=0.0045 18                      |
|                                     |                  | 2525       | 9.3 12     | 1700.81 | 1 <sup>+</sup> | E1      |          | B(E1)(W.u.)=0.000075 15                    |
|                                     |                  | 3145       | 3.2 10     | 1080.54 | 0 <sup>-</sup> | E2      |          | B(E2)(W.u.)=0.27 10                        |
|                                     |                  | 3289       | 49 3       | 937.20  | 3 <sup>+</sup> | E1+(M2) | 0.0 2    | B(E1)(W.u.)=0.00018 3                      |
|                                     |                  | 4226       | 23 2       | 0.0     | 1 <sup>+</sup> | E1+(M2) | 0.15 15  | B(E1)(W.u.)=0.000040 8                     |
| 4360.15                             | 1 <sup>+</sup>   | 1298       | 100        | 3061.84 | 2 <sup>+</sup> | M1      |          | B(M1)(W.u.)=0.5 2                          |
| 4398.1                              | 4 <sup>-</sup>   | 2297       | 27 3       | 2100.61 | 2 <sup>-</sup> | E2      |          | B(E2)(W.u.)=20 5                           |
|                                     |                  | 3277       | 60 6       | 1121.36 | 5 <sup>+</sup> | E1+(M2) | -0.2 2   | B(E1)(W.u.)=0.00041 10                     |
|                                     |                  | 3461       | 13 4       | 937.20  | 3 <sup>+</sup> | E1+(M2) | -0.2 3   | B(E1)(W.u.)=0.000078 31                    |
| 4652                                | 4 <sup>+</sup>   | 3531       | 83 3       | 1121.36 | 5 <sup>+</sup> |         |          |                                            |
|                                     |                  | 3715       | 17 3       | 937.20  | 3 <sup>+</sup> |         |          |                                            |
| 4753                                | 0 <sup>+</sup>   | 3052       | 8 4        | 1700.81 | 1 <sup>+</sup> |         |          |                                            |
|                                     |                  | 4753       | 92 4       | 0.0     | 1 <sup>+</sup> |         |          |                                            |
| 4848.3                              | 5 <sup>-</sup>   | 1056       | 35 4       | 3791.49 | 3 <sup>-</sup> |         |          |                                            |
|                                     |                  | 3727       | 65 4       | 1121.36 | 5 <sup>+</sup> |         |          |                                            |
| 4860                                | 1 <sup>-</sup>   | 1726       | 4 3        | 3133.87 | 1 <sup>-</sup> | M1      |          | B(M1)(W.u.)=0.000034 26                    |
|                                     |                  | 1798       | 23 7       | 3061.84 | 2 <sup>+</sup> | E1+(M2) | -0.4 4   | B(E1)(W.u.)=0.0000077 33                   |
|                                     |                  | 3779       | 8 6        | 1080.54 | 0 <sup>-</sup> | M1      |          | B(M1)(W.u.)=0.0000065 51                   |
|                                     |                  | 3818       | 65 11      | 1041.55 | 0 <sup>+</sup> | E1      |          | B(E1)(W.u.)=0.0000023 7                    |
| 4963.6                              | 2 <sup>+</sup>   | 4964       | 100        | 0.0     | 1 <sup>+</sup> |         |          |                                            |
| 5297.6                              | 4 <sup>+</sup>   | 646        | 1.3 3      | 4652    | 4 <sup>+</sup> | M1      |          | B(M1)(W.u.)=0.019 9                        |
|                                     |                  | 1940       | 5 1        | 3358.2  | 3 <sup>+</sup> | M1+E2   | 2.5 8    | B(M1)(W.u.)=0.00037 31; B(E2)(W.u.)=5.5 27 |
|                                     |                  | 2775       | 78 3       | 2523.35 | 2 <sup>+</sup> | E2      |          | B(E2)(W.u.)=17 6                           |
|                                     |                  | 4177       | 7 2        | 1121.36 | 5 <sup>+</sup> | M1+E2   | -1.1 5   |                                            |
|                                     |                  | 4361       | 9 2        | 937.20  | 3 <sup>+</sup> | M1+E2   | -0.3 1   |                                            |
| 5502                                | 3 <sup>(-)</sup> | 2440       | 100        | 3061.84 | 2 <sup>+</sup> |         |          |                                            |
| 5603.38                             | 1 <sup>+</sup>   | 2541       | 79.5 59    | 3061.84 | 2 <sup>+</sup> | M1      |          | B(M1)(W.u.)=1.1 2                          |
|                                     |                  | 4561       | 3.8 12     | 1041.55 | 0 <sup>+</sup> | M1      |          | B(M1)(W.u.)=0.0090 30                      |
|                                     |                  | 5603       | 16.7 23    | 0.0     | 1 <sup>+</sup> | M1      |          | B(M1)(W.u.)=0.022 5                        |
| 5604.86                             | 1 <sup>-</sup>   | 2471       | 32.2 25    | 3133.87 | 1 <sup>-</sup> | M1+E2   | -0.05 2  |                                            |
|                                     |                  | 2543       | 2.6 14     | 3061.84 | 2 <sup>+</sup> | E1      |          | B(E1)(W.u.)=0.0029 18                      |
|                                     |                  | 4524       | 54.3 31    | 1080.54 | 0 <sup>-</sup> | M1      |          | B(M1)(W.u.)=0.24 3                         |
|                                     |                  | 4563       | 4.2 8      | 1041.55 | 0 <sup>+</sup> | E1      |          | B(E1)(W.u.)=0.00081 20                     |
|                                     |                  | 5605       | 6.7 12     | 0.0     | 1 <sup>+</sup> | E1      |          | B(E1)(W.u.)=0.00071 18                     |
| 5672.57                             | 1 <sup>-</sup>   | 2539       | 28.5 20    | 3133.87 | 1 <sup>-</sup> | M1+E2   | 0.10 3   |                                            |
|                                     |                  | 2611       | 4.0 4      | 3061.84 | 2 <sup>+</sup> | E1+(M2) | 0.04 6   | B(E1)(W.u.)=0.0022 5                       |
|                                     |                  | 3572       | 0.4 2      | 2100.61 | 2 <sup>-</sup> | M1      |          | B(M1)(W.u.)=0.0019 9                       |
|                                     |                  | 3972       | 0.8 3      | 1700.81 | 1 <sup>+</sup> | E1      |          | B(E1)(W.u.)=0.00013 4                      |
|                                     |                  | 4592       | 52 3       | 1080.54 | 0 <sup>-</sup> | M1      |          | B(M1)(W.u.)=0.12 2                         |
|                                     |                  | 4631       | 8.1 7      | 1041.55 | 0 <sup>+</sup> | E1      |          | B(E1)(W.u.)=0.00080 15                     |
|                                     |                  | 5673       | 6.2 4      | 0.0     | 1 <sup>+</sup> | E1+(M2) | -0.01 4  | B(E1)(W.u.)=0.00034 7                      |
| 5786                                | 2 <sup>-</sup>   | 4705       | 60 8       | 1080.54 | 0 <sup>-</sup> | E2      |          | B(E2)(W.u.)=4.9 32                         |

Continued on next page (footnotes at end of table)

**Adopted Levels, Gammas (continued)** $\gamma(^{18}\text{F})$  (continued)

| $E_i(\text{level})$ | $J_i^\pi$         | $E_\gamma$ | $I_\gamma$ | $E_f$   | $J_f^\pi$      | Mult. | Comments                |
|---------------------|-------------------|------------|------------|---------|----------------|-------|-------------------------|
| 5786                | 2 <sup>-</sup>    | 4849       | 40 8       | 937.20  | 3 <sup>+</sup> | E1    | B(E1)(W.u.)=0.00034 23  |
| 6096.4              | 4 <sup>-</sup>    | 1444       | 8.7 7      | 4652    | 4 <sup>+</sup> | E1    | B(E1)(W.u.)=0.0031 8    |
|                     |                   | 1698       | 0.7 3      | 4398.1  | 4 <sup>-</sup> | M1    | B(M1)(W.u.)=0.004 2     |
|                     |                   | 1980       | 1.8 3      | 4115.90 | 3 <sup>+</sup> | E1    | B(E1)(W.u.)=0.0002 1    |
|                     |                   | 2304       | 1.4 3      | 3791.49 | 3 <sup>-</sup> | M1    | B(M1)(W.u.)=0.0027 8    |
|                     |                   | 3995       | 27 2       | 2100.61 | 2 <sup>-</sup> | E2    | B(E2)(W.u.)=6.0 13      |
|                     |                   | 4975       | 55 3       | 1121.36 | 5 <sup>+</sup> | E1    | B(E1)(W.u.)=0.00049 10  |
|                     |                   | 5159       | 4.9 9      | 937.20  | 3 <sup>+</sup> | E1    | B(E1)(W.u.)=0.000039 13 |
| 6108                | (1 <sup>+</sup> ) | 3046       | 45 5       | 3061.84 | 2 <sup>+</sup> |       |                         |
|                     |                   | 4007       | 20 6       | 2100.61 | 2 <sup>-</sup> |       |                         |
|                     |                   | 5171       | 11 3       | 937.20  | 3 <sup>+</sup> |       |                         |
|                     |                   | 6108       | 24 3       | 0.0     | 1 <sup>+</sup> |       |                         |
| 6136.47             | 0 <sup>+</sup>    | 533        | 0.19 2     | 5603.38 | 1 <sup>+</sup> |       |                         |
|                     |                   | 1776       | 2.1 4      | 4360.15 | 1 <sup>+</sup> |       |                         |
|                     |                   | 2412       | 36 3       | 3724.19 | 1 <sup>+</sup> |       |                         |
|                     |                   | 4435       | 12 2       | 1700.81 | 1 <sup>+</sup> |       |                         |
|                     |                   | 6136       | 50 3       | 0.0     | 1 <sup>+</sup> |       |                         |
| 6163.2              | 3 <sup>+</sup>    | 1765       | 2.0 2      | 4398.1  | 4 <sup>-</sup> | E1    | B(E1)(W.u.)=0.0078 27   |
|                     |                   | 1937       | 0.9 3      | 4225.8  | 2 <sup>-</sup> | E1    | B(E1)(W.u.)=0.0027 2    |
|                     |                   | 2047       | 1.5 3      | 4115.90 | 3 <sup>+</sup> | M1    | B(M1)(W.u.)=0.078 33    |
|                     |                   | 2324       | 25.0 16    | 3839.17 | 2 <sup>+</sup> | M1    | B(M1)(W.u.)=0.91 23     |
|                     |                   | 2371       | 11.6 13    | 3791.49 | 3 <sup>-</sup> | E1    | B(E1)(W.u.)=0.018 6     |
|                     |                   | 3101       | 1.3 3      | 3061.84 | 2 <sup>+</sup> | M1    | B(M1)(W.u.)=0.019 10    |
|                     |                   | 3640       | 5.5 4      | 2523.35 | 2 <sup>+</sup> | M1    | B(M1)(W.u.)=0.052 17    |
|                     |                   | 5042       | 1.0 1      | 1121.36 | 5 <sup>+</sup> | E2    | B(E2)(W.u.)=1.3 4       |
|                     |                   | 5226       | 51 3       | 937.20  | 3 <sup>+</sup> | M1    | B(M1)(W.u.)=0.16 4      |
|                     |                   | 6163       | 0.2 2      | 0.0     | 1 <sup>+</sup> | E2    | B(E2)(W.u.)=0.1 1       |
| 6240.4              | 3 <sup>-</sup>    | 1842       | 2.9 3      | 4398.1  | 4 <sup>-</sup> | M1    | B(M1)(W.u.)=0.18 3      |
|                     |                   | 2014       | 7.8 4      | 4225.8  | 2 <sup>-</sup> | M1    | B(M1)(W.u.)=0.36 6      |
|                     |                   | 2124       | 0.5 2      | 4115.90 | 3 <sup>+</sup> | E1    | B(E1)(W.u.)=0.00089 38  |
|                     |                   | 2401       | 1.0 2      | 3839.17 | 2 <sup>+</sup> | E1    | B(E1)(W.u.)=0.0013 3    |
|                     |                   | 2448       | 10.6 5     | 3791.49 | 3 <sup>-</sup> | M1    | B(M1)(W.u.)=0.28 4      |
|                     |                   | 2882       | 1.1 4      | 3358.2  | 3 <sup>+</sup> | E1    | B(E1)(W.u.)=0.00079 31  |
|                     |                   | 4139       | 71.5 30    | 2100.61 | 2 <sup>-</sup> | M1    | B(M1)(W.u.)=0.38 3      |
|                     |                   | 5303       | 4.6 3      | 937.20  | 3 <sup>+</sup> | E1    | B(E1)(W.u.)=0.00053 8   |
| 6242                | 3 <sup>-</sup>    | 1844       | 2.1 3      | 4398.1  | 4 <sup>-</sup> | M1    | B(M1)(W.u.)=0.12 2      |
|                     |                   | 2016       | 8.2 4      | 4225.8  | 2 <sup>-</sup> | M1    | B(M1)(W.u.)=0.35 6      |
|                     |                   | 2126       | 1.1 4      | 4115.90 | 3 <sup>+</sup> | E1    | B(E1)(W.u.)=0.0018 7    |
|                     |                   | 2403       | 0.9 2      | 3839.17 | 2 <sup>+</sup> | E1    | B(E1)(W.u.)=0.0010 3    |
|                     |                   | 2450       | 11.6 6     | 3791.49 | 3 <sup>-</sup> | M1    | B(M1)(W.u.)=0.27 4      |
|                     |                   | 2884       | 0.8 3      | 3358.2  | 3 <sup>+</sup> | E1    | B(E1)(W.u.)=0.00052 21  |
|                     |                   | 4141       | 71.2 30    | 2100.61 | 2 <sup>-</sup> | M1    | B(M1)(W.u.)=0.35 6      |
|                     |                   | 5305       | 4.1 3      | 937.20  | 3 <sup>+</sup> | E1    | B(E1)(W.u.)=0.00043 9   |
| 6262                | 1 <sup>+</sup>    | 6262       | 100        | 0.0     | 1 <sup>+</sup> |       |                         |
| 6283.2              | 2 <sup>+</sup>    | 1923       | 0.5 4      | 4360.15 | 1 <sup>+</sup> | M1    | B(M1)(W.u.)=0.06 5      |
|                     |                   | 2167       | 3.9 2      | 4115.90 | 3 <sup>+</sup> | M1    | B(M1)(W.u.)=0.33 11     |
|                     |                   | 2444       | 15.8 14    | 3839.17 | 2 <sup>+</sup> | M1    | B(M1)(W.u.)=0.91 29     |
|                     |                   | 2559       | 1.4 5      | 3724.19 | 1 <sup>+</sup> | M1    | B(M1)(W.u.)=0.071 34    |
|                     |                   | 2925       | 2.3 3      | 3358.2  | 3 <sup>+</sup> | M1    | B(M1)(W.u.)=0.078 27    |
|                     |                   | 3149       | 0.7 3      | 3133.87 | 1 <sup>-</sup> | E1    | B(E1)(W.u.)=0.00089 55  |
|                     |                   | 3760       | 0.3 2      | 2523.35 | 2 <sup>+</sup> | M1    | B(M1)(W.u.)=0.0048 34   |
|                     |                   | 4182       | 1.2 3      | 2100.61 | 2 <sup>-</sup> | E1    | B(E1)(W.u.)=0.00064 32  |
|                     |                   | 4582       | 5.7 6      | 1700.81 | 1 <sup>+</sup> | M1    | B(M1)(W.u.)=0.050 15    |
|                     |                   | 5241       | 1.3 1      | 1041.55 | 0 <sup>+</sup> | E2    | B(E2)(W.u.)=2.5 9       |
|                     |                   | 5346       | 67 3       | 937.20  | 3 <sup>+</sup> | M1    | B(M1)(W.u.)=0.41 13     |

Continued on next page (footnotes at end of table)

**Adopted Levels, Gammas (continued)**

| $\gamma(^{18}\text{F})$ (continued) |                                  |            |            |         |                  |         |          |                        |
|-------------------------------------|----------------------------------|------------|------------|---------|------------------|---------|----------|------------------------|
| $E_i(\text{level})$                 | $J_i^\pi$                        | $E_\gamma$ | $I_\gamma$ | $E_f$   | $J_f^\pi$        | Mult.   | $\delta$ | Comments               |
| 6283.2                              | 2 <sup>+</sup>                   | 6283       | 0.3 1      | 0.0     | 1 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.0010 5   |
| 6310.5                              | 3 <sup>+</sup>                   | 1347       | 13.0 15    | 4963.6  | 2 <sup>+</sup>   | M1+(E2) | -0.01 14 | B(M1)(W.u.)=0.62 20    |
|                                     |                                  | 2195       | 2.4 17     | 4115.90 | 3 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.018 14   |
|                                     |                                  | 2472       | 4.6 10     | 3839.17 | 2 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.025 9    |
|                                     |                                  | 2587       | 1.4 7      | 3724.19 | 1 <sup>+</sup>   | E2      |          | B(E2)(W.u.)=9 5        |
|                                     |                                  | 3249       | 57 3       | 3061.84 | 2 <sup>+</sup>   | M1+(E2) | -0.03 10 | B(M1)(W.u.)=0.14 3     |
|                                     |                                  | 3788       | 4.0 5      | 2523.35 | 2 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.0060 18  |
|                                     |                                  | 4610       | 3.0 8      | 1700.81 | 1 <sup>+</sup>   | E2      |          | B(E2)(W.u.)=1.0 4      |
|                                     |                                  | 5374       | 10.6 10    | 937.20  | 3 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.0055 15  |
|                                     |                                  | 6311       | 4.0 7      | 0.0     | 1 <sup>+</sup>   | E2      |          | B(E2)(W.u.)=0.29 10    |
| 6385.5                              | 2 <sup>+</sup>                   | 2270       | 2.3 5      | 4115.90 | 3 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.041 20   |
|                                     |                                  | 2547       | 14.1 16    | 3839.17 | 2 <sup>+</sup>   | M1+(E2) | 0.1 2    | B(M1)(W.u.)=0.18 9     |
|                                     |                                  | 4685       | 6.8 17     | 1700.81 | 1 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.014 7    |
|                                     |                                  | 5449       | 75 3       | 937.20  | 3 <sup>+</sup>   | M1+E2   | -0.25 10 |                        |
|                                     |                                  | 6386       | 1.5 5      | 0.0     | 1 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.0012 6   |
| 6484.9                              | 3 <sup>+</sup>                   | 1521       | 2 2        | 4963.6  | 2 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.02 2     |
|                                     |                                  | 2646       | 9 2        | 3839.17 | 2 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.017 6    |
|                                     |                                  | 2693       | 4 2        | 3791.49 | 3 <sup>-</sup>   | E1      |          | B(E1)(W.u.)=0.00033 22 |
|                                     |                                  | 3423       | 21 3       | 3061.84 | 2 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.019 7    |
|                                     |                                  | 3962       | 4 2        | 2523.35 | 2 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.0023 15  |
|                                     |                                  | 4784       | 4 2        | 1700.81 | 1 <sup>+</sup>   | E2      |          | B(E2)(W.u.)=0.52 35    |
|                                     |                                  | 5364       | 10 2       | 1121.36 | 5 <sup>+</sup>   | E2      |          | B(E2)(W.u.)=0.72 27    |
|                                     |                                  | 5548       | 33 2       | 937.20  | 3 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.0067 22  |
|                                     |                                  | 6485       | 13 2       | 0.0     | 1 <sup>+</sup>   | E2      |          | B(E2)(W.u.)=0.36 15    |
| 6567.0                              | 5 <sup>+</sup>                   | 1269       | 2.3 6      | 5297.6  | 4 <sup>+</sup>   | M1      |          | B(M1)(W.u.)=0.014 5    |
|                                     |                                  | 3209       | 83 3       | 3358.2  | 3 <sup>+</sup>   | E2      |          | B(E2)(W.u.)=28 6       |
|                                     |                                  | 5630       | 15.2 16    | 937.20  | 3 <sup>+</sup>   | E2      |          | B(E2)(W.u.)=0.31 8     |
| 6643.7                              | 2 <sup>-</sup>                   | 1142       | 4.0 3      | 5502    | 3 <sup>(-)</sup> | M1      |          | B(M1)(W.u.)=1.8 6      |
|                                     |                                  | 1784       | 2.6 2      | 4860    | 1 <sup>-</sup>   | M1      |          | B(M1)(W.u.)=0.30 10    |
|                                     |                                  | 2528       | 1.0 3      | 4115.90 | 3 <sup>+</sup>   | E1      |          | B(E1)(W.u.)=0.0019 9   |
|                                     |                                  | 2852       | 2.4 2      | 3791.49 | 3 <sup>-</sup>   | M1      |          | B(M1)(W.u.)=0.070 23   |
|                                     |                                  | 2920       | 0.9 2      | 3724.19 | 1 <sup>+</sup>   | E1      |          | B(E1)(W.u.)=0.0011 4   |
|                                     |                                  | 3510       | 22.0 13    | 3133.87 | 1 <sup>-</sup>   | M1      |          | B(M1)(W.u.)=0.34 11    |
|                                     |                                  | 4543       | 58 3       | 2100.61 | 2 <sup>-</sup>   | M1      |          | B(M1)(W.u.)=0.41 14    |
|                                     |                                  | 5707       | 8.9 6      | 937.20  | 3 <sup>+</sup>   | E1      |          | B(E1)(W.u.)=0.0014 5   |
| 6777                                | 4 <sup>+</sup>                   | 2125       | 62 2       | 4652    | 4 <sup>+</sup>   |         |          |                        |
|                                     |                                  | 5656       | 25.2 13    | 1121.36 | 5 <sup>+</sup>   |         |          |                        |
|                                     |                                  | 5840       | 12.6 9     | 937.20  | 3 <sup>+</sup>   |         |          |                        |
| 6803.1                              | 1 <sup>+</sup> ,2,3 <sup>+</sup> | 1839       | 7.0 17     | 4963.6  | 2 <sup>+</sup>   |         |          |                        |
|                                     |                                  | 2964       | 3.0 16     | 3839.17 | 2 <sup>+</sup>   |         |          |                        |
|                                     |                                  | 3741       | 50 3       | 3061.84 | 2 <sup>+</sup>   |         |          |                        |
|                                     |                                  | 5866       | 20 2       | 937.20  | 3 <sup>+</sup>   |         |          |                        |
|                                     |                                  | 6803       | 20 2       | 0.0     | 1 <sup>+</sup>   |         |          |                        |
| 6877.4                              | 3,4 <sup>-</sup>                 | 2225       | 91 2       | 4652    | 4 <sup>+</sup>   |         |          |                        |
|                                     |                                  | 4776       | 9 2        | 2100.61 | 2 <sup>-</sup>   |         |          |                        |
| 7336                                | 1 <sup>-</sup>                   | 3110       | 15.0 6     | 4225.8  | 2 <sup>-</sup>   |         |          |                        |
|                                     |                                  | 4202       | 8.0 5      | 3133.87 | 1 <sup>-</sup>   |         |          |                        |
|                                     |                                  | 4274       | 1.0 5      | 3061.84 | 2 <sup>+</sup>   |         |          |                        |
|                                     |                                  | 5235       | 18 1       | 2100.61 | 2 <sup>-</sup>   |         |          |                        |
|                                     |                                  | 6255       | 54 2       | 1080.54 | 0 <sup>-</sup>   |         |          |                        |
|                                     |                                  | 7336       | 4.0 5      | 0.0     | 1 <sup>+</sup>   |         |          |                        |
| 7478                                | (2)                              | 6541       | 100        | 937.20  | 3 <sup>+</sup>   |         |          |                        |
| 7513                                |                                  | 3115       | 55 7       | 4398.1  | 4 <sup>-</sup>   |         |          |                        |
|                                     |                                  | 3721       | 33 5       | 3791.49 | 3 <sup>-</sup>   |         |          |                        |
|                                     |                                  | 5412       | 7 5        | 2100.61 | 2 <sup>-</sup>   |         |          |                        |

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

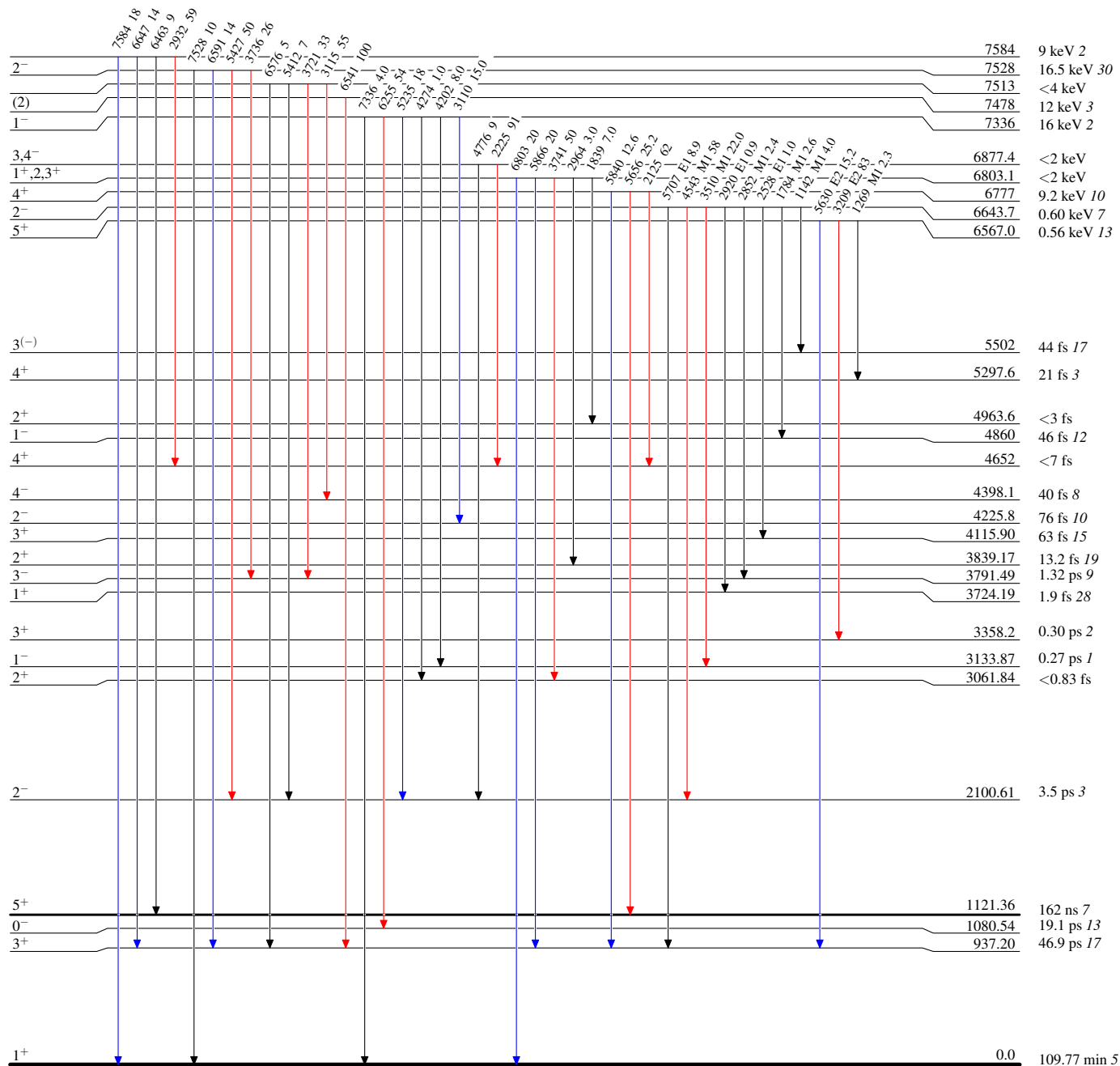
| $\gamma(^{18}\text{F})$ (continued) |           |            |            |         |           |                     |           |            |            |       |           |
|-------------------------------------|-----------|------------|------------|---------|-----------|---------------------|-----------|------------|------------|-------|-----------|
| $E_i(\text{level})$                 | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$   | $J_f^\pi$ | $E_i(\text{level})$ | $J_i^\pi$ | $E_\gamma$ | $I_\gamma$ | $E_f$ | $J_f^\pi$ |
| 7513                                | $2^-$     | 6576       | 5 4        | 937.20  | $3^+$     | 7584                |           | 2932       | 59 16      | 4652  | $4^+$     |
| 7528                                |           | 3736       | 26 7       | 3791.49 | $3^-$     | 6463                |           | 9 7        | 1121.36    | $5^+$ |           |
|                                     |           | 5427       | 50 9       | 2100.61 | $2^-$     | 6647                |           | 14 12      | 937.20     | $3^+$ |           |
|                                     |           | 6591       | 14 6       | 937.20  | $3^+$     | 7584                |           | 18 7       | 0.0        | $1^+$ |           |
|                                     |           | 7528       | 10 3       | 0.0     | $1^+$     |                     |           |            |            |       |           |

**Adopted Levels, Gammas****Level Scheme**

Intensities: Type not specified

**Legend**

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

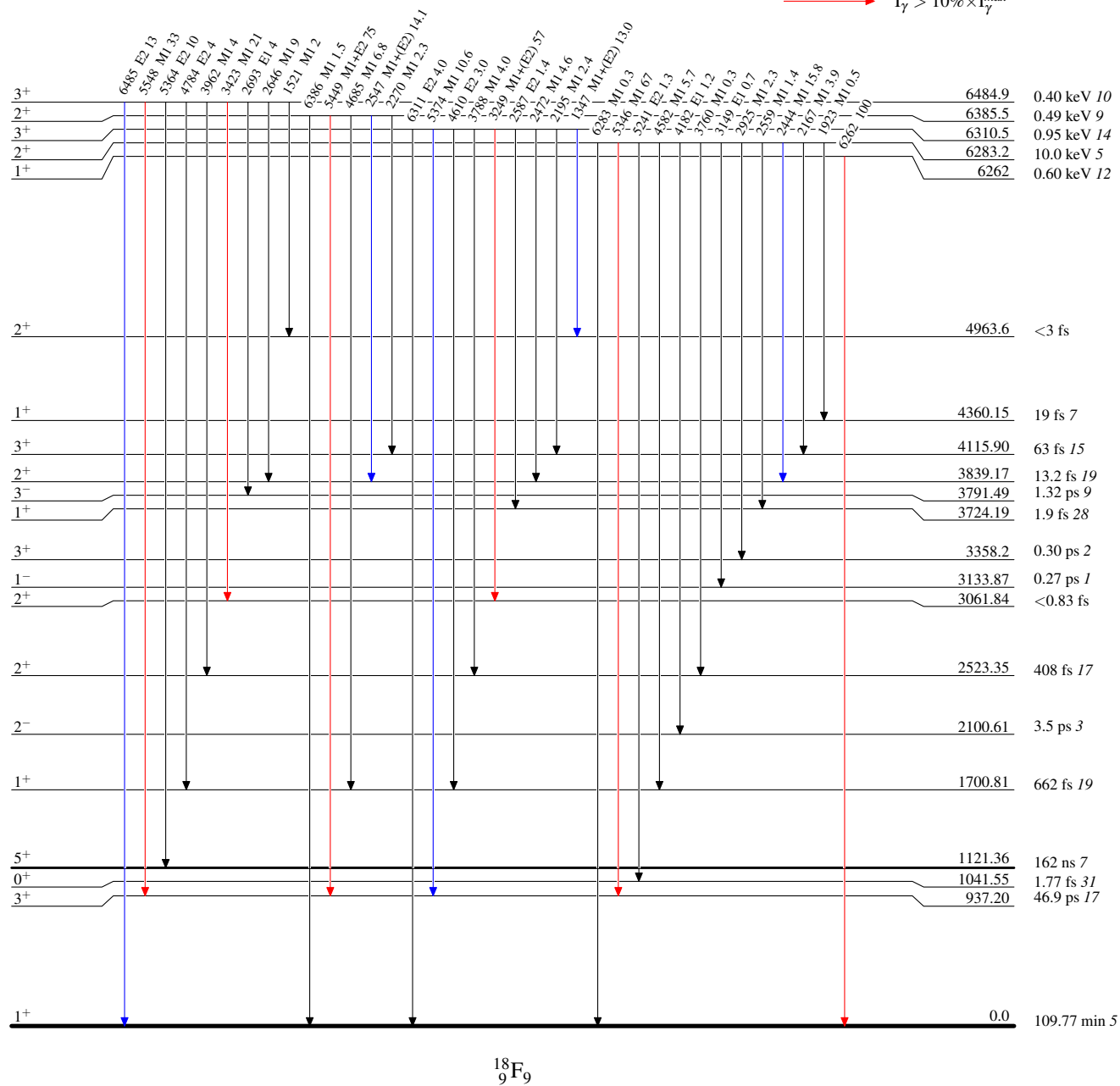
 $^{18}\text{F}_9$

**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Type not specified

**Legend**

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

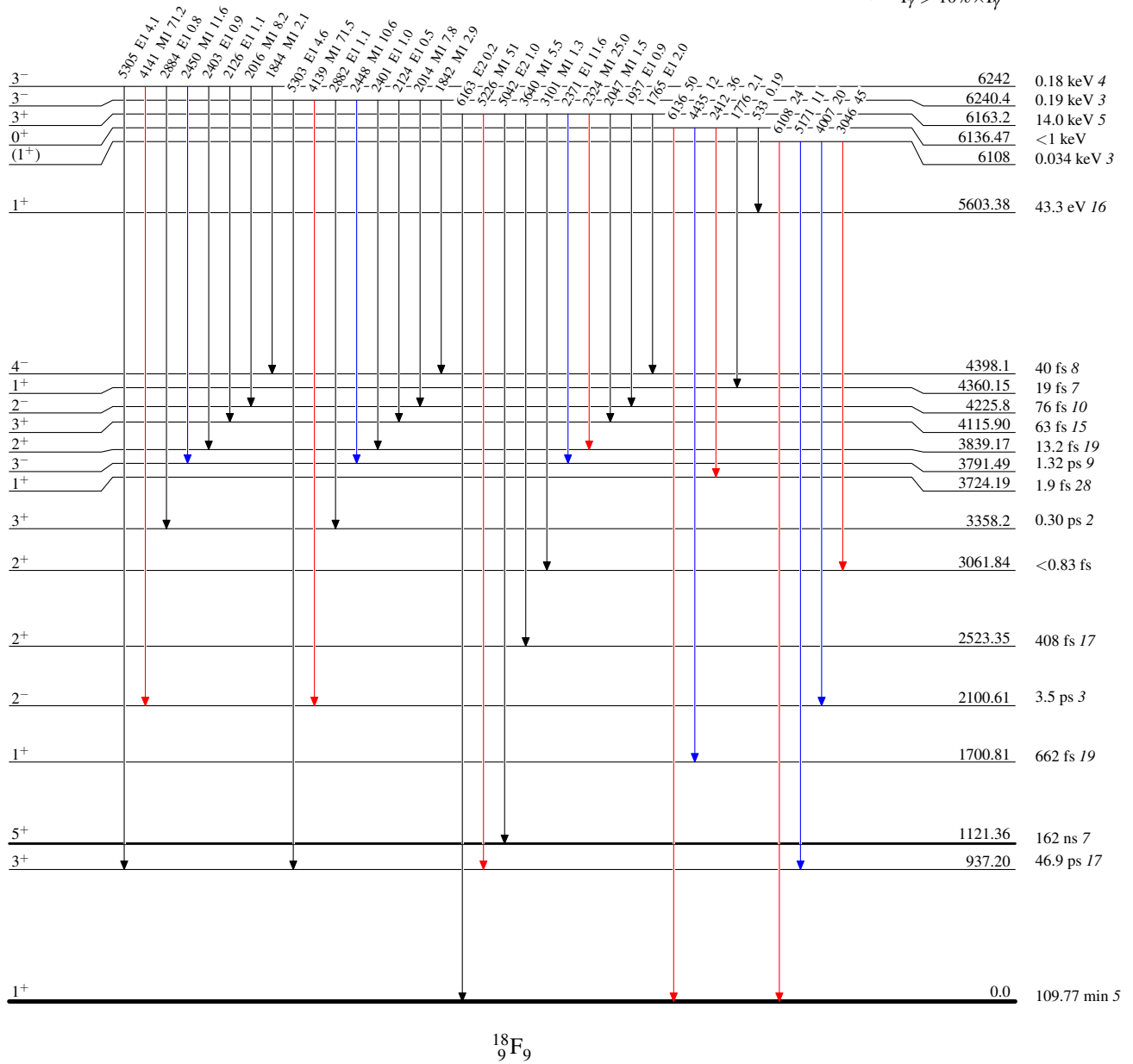
 $^{18}\text{F}_9$

**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Type not specified

**Legend**

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

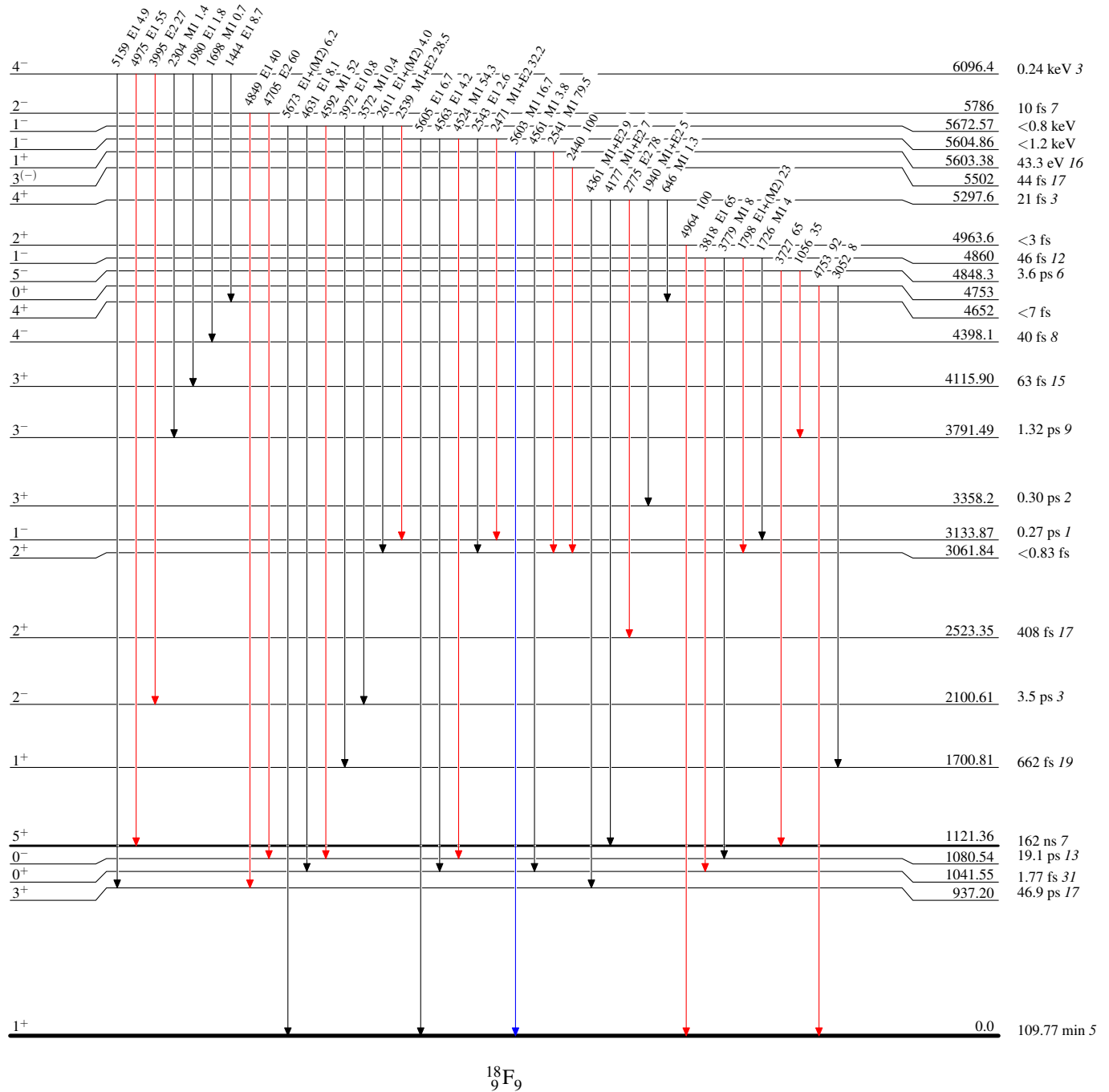
 $^{18}\text{F}_9$

**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Type not specified

**Legend**

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



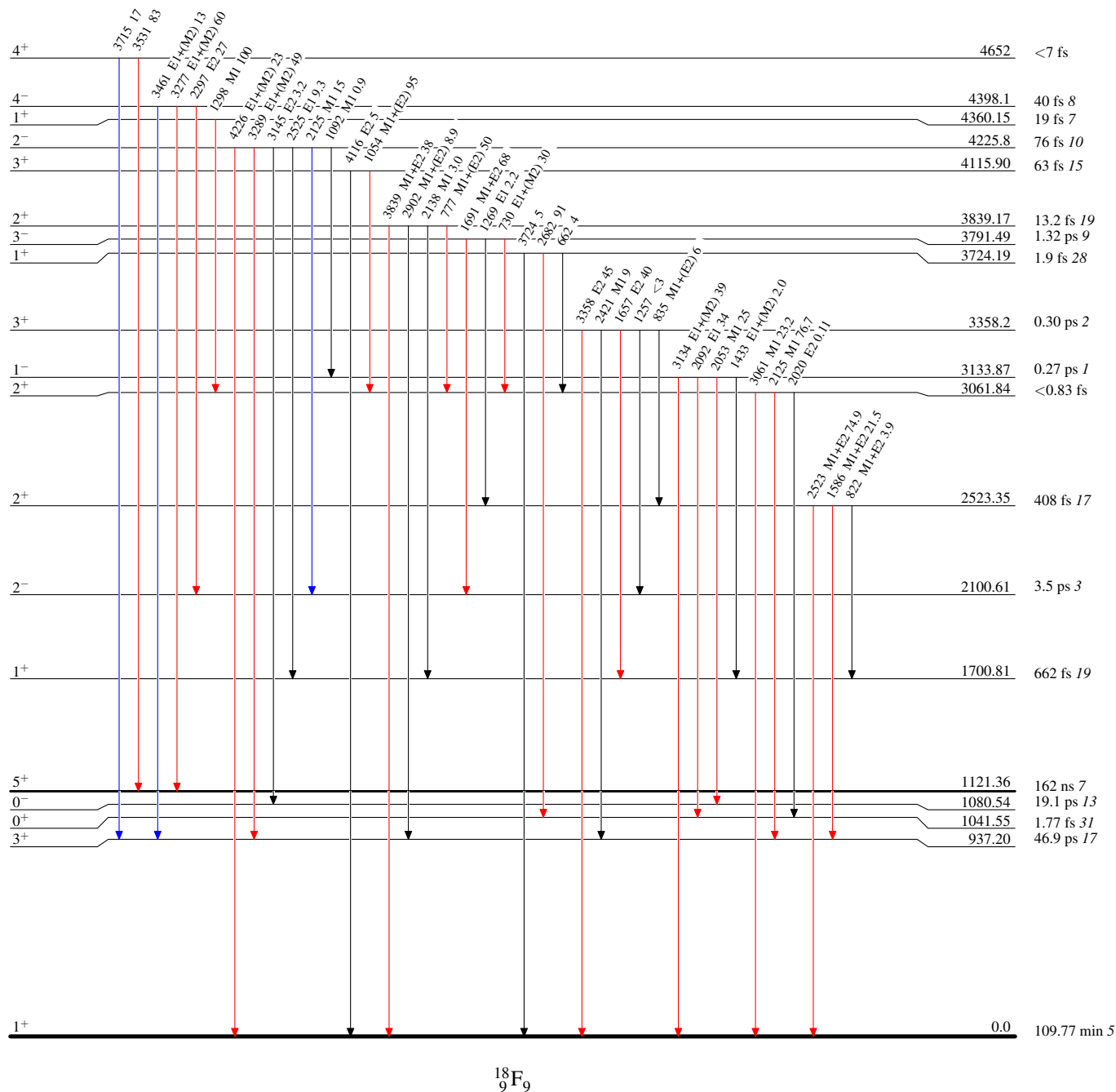
**Adopted Levels, Gammas**

## Legend

**Level Scheme (continued)**

Intensities: Type not specified

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



**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Type not specified

**Legend**

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

