

**Adopted Levels, Gammas**

| Type            | Author      | History<br>Citation | Literature Cutoff Date |
|-----------------|-------------|---------------------|------------------------|
| Full Evaluation | J. Katakura | NDS 112,495 (2011)  | 1-Jan-2010             |

$Q(\beta^-) = -185.77$  6;  $S(n) = 6568.97$  3;  $S(p) = 8690.9$  16;  $Q(\alpha) = -2250.4$  17    [2012Wa38](#)

Note: Current evaluation has used the following Q record  $-185.77$  6  $6568.97$  3  $8691.0$  16  $-2242.2$  24    [2009AuZZ](#).

 $^{125}\text{Te}$  LevelsCross Reference (XREF) Flags

|          |                                    |          |                                       |          |                                       |
|----------|------------------------------------|----------|---------------------------------------|----------|---------------------------------------|
| <b>A</b> | Coulomb excitation                 | <b>E</b> | $^{124}\text{Te}(n,\gamma)$ E=thermal | <b>I</b> | $^{125}\text{Te}(d,d')$               |
| <b>B</b> | $^{124}\text{Sn}(\alpha,3n\gamma)$ | <b>F</b> | $^{125}\text{I}$ $\varepsilon$ decay  | <b>J</b> | $^{126}\text{Te}(d,t)$                |
| <b>C</b> | $^{124}\text{Te}(d,p)$             | <b>G</b> | $^{125}\text{Sb}$ $\beta^-$ decay     | <b>K</b> | $^{126}\text{Te}(^3\text{He},\alpha)$ |
| <b>D</b> | $^{124}\text{Te}(t,d)$             | <b>H</b> | $^{125}\text{Te}$ IT decay            | <b>L</b> | $^{127}\text{I}(\mu^-, \nu 2n\gamma)$ |

| E(level) <sup>†</sup> | J <sup>π</sup>    | T <sub>1/2</sub> | XREF                                                                                         | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------|-------------------|------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.0                   | 1/2 <sup>+</sup>  | stable           | <a href="#">AB</a> <a href="#">CDEFGH</a> <a href="#">JKL</a>                                | $\mu = -0.8885051$ 4<br>$\mu$ : From NMR ( <a href="#">1977Bu29</a> ); value relative to $\mu$ for $^2\text{H}$ ( <a href="#">1977Bu29</a> ). See also <a href="#">2005St24</a> compilation.<br>$\langle r^2 \rangle^{1/2} = 4.7198$ fm 18 ( <a href="#">2004An14</a> , evaluation).<br>$J^\pi$ : Optical spectroscopy $J=1/2$ ( <a href="#">1976Fu06</a> ); $L=0$ in (d,p).<br>Configuration= $(\nu 3s_{1/2})$ .<br>$\mu = +0.605$ 4; $Q = -0.31$ 2<br>$J^\pi$ : $L=2$ in (d,p), ( $^3\text{He},\alpha$ ); $M1+E2$ $\gamma$ to 1/2 <sup>+</sup> .<br>$T_{1/2}$ : From weighted av of $\gamma\gamma(t)$ , $X\gamma(t)$ , $ce\gamma(t)$ , (ce)(ce)(t): 1.55 ns 3 ( <a href="#">1967Vo02</a> ), 1.475 ns 10 ( <a href="#">1968Ho05</a> ), 1.486 ns 9 ( <a href="#">1970Be47</a> ), 1.50 ns 8 ( <a href="#">1970Ba69</a> ), 1.51 ns 5 ( <a href="#">1972Sa08</a> ), 1.45 ns 3 ( <a href="#">1970Ma20</a> ), 1.41 ns 4 ( <a href="#">1971Bo13</a> ). Other: 1.32 ns 21 ( <a href="#">1964Ro21</a> ); charge state dependence ( <a href="#">1995At01</a> , <a href="#">1997At01</a> ).<br>$\mu$ : From Moss ( <a href="#">1975Bo51</a> ); value relative to $\mu$ for $^{125}\text{Te}$ . See also <a href="#">2005St24</a> compilation.<br>$Q$ : From Moss ( <a href="#">1977La03</a> ); value relative to $Q$ for $^{129}\text{I}$ . See also <a href="#">2005St24</a> compilation.<br>Configuration= $(\nu 2d_{3/2})$ .<br>%IT=100<br>$\mu = -0.985$ 6; $Q = -0.06$ 2<br>$\mu$ : From radiative detection of NMR ( <a href="#">1980Ge02</a> ); value relative to $\mu = +0.605$ 4 for $^{125}\text{Te}$ 36-keV level. See also <a href="#">2005St24</a> compilation.<br>$Q$ : From Mossbauer detection of oriented nuclei ( <a href="#">1987Be36</a> ); value relative to $Q = -0.31$ 2 for $^{125}\text{Te}$ 36-keV level. <a href="#">2006Si40</a> gave $+0.02$ 17 from laser spectroscopy. See also <a href="#">2005St24</a> compilation.<br>$J^\pi$ : $L=5$ in (d,p), ( $^3\text{He},\alpha$ ); $M4$ $\gamma$ to 3/2 <sup>+</sup> .<br>$T_{1/2}$ : From <a href="#">1978La21</a> . Others: 58 d 4 ( <a href="#">1988GeZS</a> ), 58 d 1 ( <a href="#">1965An05</a> ), 58 d 4 ( <a href="#">1949Hi27</a> ).<br>Configuration= $(\nu 1h_{11/2})$ .<br>$\mu = -0.92$ 3; $Q = 0.12$ +5-9<br>$J^\pi$ : $M1+E2$ $\gamma$ to 11/2 <sup>-</sup> , $E1$ $\gamma$ from 7/2 <sup>+</sup> .<br>$T_{1/2}$ : From $^{125}\text{Sb}$ $\beta^-$ decay.<br>$\mu$ : From integral PAC ( <a href="#">1970Cr07</a> ). See also <a href="#">2005St24</a> compilation.<br>$Q$ : From integral PAC ( <a href="#">1976Va28</a> ); value relative to $Q = -0.31$ 2 for $^{125}\text{Te}$ 36-keV level. See also <a href="#">2005St24</a> compilation.<br>$J^\pi$ : $E1$ $\gamma$ to 9/2 <sup>-</sup> , $\gamma$ to 3/2 <sup>+</sup> .<br>$\mu = +0.65$ 18<br>$J^\pi$ : $M1+E2$ $\gamma$ to 1/2 <sup>+</sup> , $L=2$ in (d,t), (t,d), ( $^3\text{He},\alpha$ ). |
| 35.4925 5             | 3/2 <sup>+</sup>  | 1.482 ns 8       | <a href="#">AB</a> <a href="#">CDEFGH</a> <a href="#">JKL</a>                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 144.775 8             | 11/2 <sup>-</sup> | 57.40 d 15       | <a href="#">AB</a> <a href="#">CDE</a> <a href="#">GH</a> <a href="#">JKL</a>                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 321.090 8             | 9/2 <sup>-</sup>  | 0.673 ns 13      | <a href="#">AB</a> <a href="#">E</a> <a href="#">G</a> <a href="#">I</a> <a href="#">JKL</a> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 402.09 <sup>‡</sup> 4 | 7/2 <sup>+</sup>  |                  | <a href="#">G</a>                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 443.562 5             | 3/2 <sup>+</sup>  | 19.1 ps 6        | <a href="#">AB</a> <a href="#">CDE</a> <a href="#">G</a> <a href="#">JKL</a>                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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**Adopted Levels, Gammas (continued)** $^{125}\text{Te}$  Levels (continued)

| E(level) <sup>†</sup> | J <sup>π</sup>                      | T <sub>1/2</sub> | XREF         | Comments                                                                                                                                                                                                                             |
|-----------------------|-------------------------------------|------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       |                                     |                  |              | T <sub>1/2</sub> : From B(E2) in Coul. ex. (1975Be04).<br>μ: From transient field IPAC (1989Be22). Others: +1.0 3 from transient field IPAC (2007St24), +0.59 9 from ion implantation PAC (1974Ro40). See also 2005St24 compilation. |
| 463.3668 23           | 5/2 <sup>+</sup>                    | 13.2 ps 5        | ABCDE G IJKL | μ=+0.50 13<br>J <sup>π</sup> : L=2 in (d,t), log ft=8.04 from 7/2 <sup>+</sup> .<br>T <sub>1/2</sub> : From B(E2) in Coul. ex. (1975Be04). Other: 18.8 ps 25 in <sup>125</sup> Sb β <sup>-</sup> decay.                              |
|                       |                                     |                  |              | μ: From transient field IPAC (1989Be22). Others: +0.85 23 from transient field IPAC (2007St24), +0.80 23 from transient field IPAC (1985Gr17). See also 2005St24 compilation.                                                        |
| 525.228 7             | 7/2 <sup>-</sup>                    | ≤160 ps          | ABCDE G JKL  | μ<0<br>J <sup>π</sup> : L=3 in (d,t), ( <sup>3</sup> He,α); γγ(θ) in <sup>125</sup> Sb β <sup>-</sup> decay.<br>T <sub>1/2</sub> : From <sup>125</sup> Sb β <sup>-</sup> decay.                                                      |
|                       |                                     |                  |              | μ: From integral PAC (1971Ro17). See also 2005St24 compilation.                                                                                                                                                                      |
| 537.851 16            | (1/2 <sup>+</sup> )                 |                  | A C E G J    | J <sup>π</sup> : L=(0) in (d,t).                                                                                                                                                                                                     |
| 636.0908 20           | 7/2 <sup>+</sup>                    | 40 ps 20         | ABC E G JkL  | XREF: k(639).<br>J <sup>π</sup> : L=4 in (d,t), ( <sup>3</sup> He,d); M1+E2 γ to 5/2 <sup>+</sup> .<br>T <sub>1/2</sub> : From <sup>125</sup> Sb β <sup>-</sup> decay.                                                               |
| 642.206 3             | 7/2 <sup>+</sup>                    | ≤70 ps           | ABCDE G JkL  | XREF: k(639).<br>J <sup>π</sup> : L=4 in (d,p), γ to 3/2 <sup>+</sup> .                                                                                                                                                              |
| 652.90 5              | (5/2)                               |                  | G            | T <sub>1/2</sub> : From <sup>125</sup> Sb β <sup>-</sup> decay.<br>J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 9/2 <sup>-</sup> ; 1998Sa55 suggests (3/2 <sup>+</sup> ) from systematics.                                           |
| 671.4448 24           | 5/2 <sup>+</sup>                    | 1.26 ps 6        | A CDE G IJKL | μ=-0.6 7<br>J <sup>π</sup> : L=2 in (d,p), log ft=6.94 from 7/2 <sup>+</sup> .<br>T <sub>1/2</sub> : from B(E2) in Coul. ex. (1975Be04). Other: 40 ps 25 in <sup>125</sup> Sb β <sup>-</sup> decay.                                  |
|                       |                                     |                  |              | μ: From transient field IPAC (1989Be22). Other: -0.5 7 from transient field ipac (1989Ra17).                                                                                                                                         |
| 729.229 12            | 3/2 <sup>+</sup>                    |                  | A CDE G IJ   | B(E2)†=0.0030 18<br>XREF: I(740).<br>J <sup>π</sup> : L=2 in (d,p) and populated by strong primary γ from 1/2 <sup>+</sup> capture state.<br>B(E2)†: From Coul. ex.                                                                  |
| 786.577 23            | 7/2 <sup>-</sup>                    |                  | CDE JKL      | J <sup>π</sup> : L=3 in (t,d), γ to 11/2 <sup>-</sup> .                                                                                                                                                                              |
| 804.6 4               | (15/2 <sup>-</sup> )                |                  | C JK         | J <sup>π</sup> : Suggested from CCBA analysis in (d,t).                                                                                                                                                                              |
| 840.91 10             | 15/2 <sup>(-)</sup>                 |                  | B K          | J <sup>π</sup> : γ(θ) in (α,3nγ).                                                                                                                                                                                                    |
| 1017.73 3             | 7/2 <sup>(+)</sup>                  |                  | A C E iJ     | XREF: i(1040).<br>J <sup>π</sup> : Stretched Q γ to 3/2 <sup>+</sup> in Coul. ex.                                                                                                                                                    |
| 1029.4 10             | 9/2 <sup>(+)</sup>                  |                  | A i K        | XREF: i(1040).                                                                                                                                                                                                                       |
| 1053.85 3             | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                  | A CDE iJK    | J <sup>π</sup> : Stretched Q γ to 5/2 <sup>+</sup> .<br>XREF: i(1040).                                                                                                                                                               |
| 1066.31 3             | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                  | A C E J      | J <sup>π</sup> : L=2 in (d,t), ( <sup>3</sup> He,α).                                                                                                                                                                                 |
| 1071.868 17           | 5/2 <sup>-</sup>                    |                  | E            | J <sup>π</sup> : L=2 in (d,t).                                                                                                                                                                                                       |
| 1091.40 9             | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                  | E JK         | J <sup>π</sup> : γ's to 3/2 <sup>+</sup> and 9/2 <sup>-</sup> and γ from 3/2 <sup>-</sup> .                                                                                                                                          |
| 1133.330 23           | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                  | A CDE iJK    | J <sup>π</sup> : L=2 in (d,t).<br>XREF: i(1130).                                                                                                                                                                                     |
| 1148.7 6              | 7/2 <sup>+</sup> , 9/2 <sup>+</sup> |                  | C iJK        | J <sup>π</sup> : L=2 in ( <sup>3</sup> He,α), (d,t).<br>XREF: i(1130)K(1153).                                                                                                                                                        |
| 1191.73 14            | (11/2 <sup>+</sup> )                |                  | B            | J <sup>π</sup> : L=4 in (d,t).                                                                                                                                                                                                       |
| 1209.61 3             | 5/2 <sup>-</sup> , 7/2, 9/2         |                  | C E          | J <sup>π</sup> : γ(θ) in (α,3nγ).<br>XREF: C(1204).                                                                                                                                                                                  |

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**Adopted Levels, Gammas (continued)** $^{125}\text{Te}$  Levels (continued)

| E(level) <sup>†</sup> | J <sup>π</sup>                           | XREF |     | Comments                                                                                                                                                                              |
|-----------------------|------------------------------------------|------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1242.820 25           | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup> | cdE  | ijk | J <sup>π</sup> : γ's to 7/2 <sup>-</sup> and 9/2 <sup>-</sup> , γ from 7/2 <sup>+</sup> .<br>XREF: c(1243)d(1242)i(1260)j(1241)k(1237).                                               |
| 1245.62? 5            |                                          | cdE  | ijk | J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 5/2 <sup>+</sup> .<br>XREF: c(1243)d(1242)i(1260)j(1241)k(1237).                                                                         |
| 1265.17 4             | 3/2 <sup>+</sup> , 5/2 <sup>+</sup>      | CDE  | iJK | XREF: i(1260).<br>J <sup>π</sup> : L=2 in (d,t), (t,d) and ( <sup>3</sup> He,α).<br>J <sup>π</sup> : γ to 11/2 <sup>-</sup> and γ from 19/2 <sup>(-)</sup> .<br>XREF: J(1309)K(1316). |
| 1310.51 16            | 15/2 <sup>(-)</sup>                      | B    |     | J <sup>π</sup> : L=4 in ( <sup>3</sup> He,α).<br>XREF: d(1322)j(1317).                                                                                                                |
| 1314.6 10             | 7/2 <sup>+</sup> , 9/2 <sup>+</sup>      | C E  | JK  | J <sup>π</sup> : γ's to 7/2 <sup>-</sup> and 1/2 <sup>+</sup> and populated by strong primary γ from 1/2 <sup>+</sup> capture state.<br>XREF: d(1322)j(1317).                         |
| 1319.538 21           | 3/2 <sup>-</sup>                         | CdE  | j   | J <sup>π</sup> : γ to 9/2 <sup>-</sup> and γ from 3/2 <sup>-</sup> .<br>XREF: D(1364).                                                                                                |
| 1322.33 4             | 5/2 <sup>-</sup> , 7/2 <sup>-</sup>      | dE   | j   | J <sup>π</sup> : L=4 in (d,t).<br>J <sup>π</sup> : L=2 in ( <sup>3</sup> He,α), (d,t), (t,d) and γ to 7/2 <sup>-</sup> .                                                              |
| 1358.19 7             | 7/2 <sup>+</sup> , 9/2 <sup>+</sup>      | CDE  | JK  | J <sup>π</sup> : γ(θ) in (α,3nγ).<br>XREF: j(1526).                                                                                                                                   |
| 1435.91 4             | 5/2 <sup>+</sup>                         | CDE  | JK  | XREF: j(1526).                                                                                                                                                                        |
| 1500.66 17            | 19/2 <sup>(-)</sup>                      | B    |     | J <sup>π</sup> : L=2 in (t,d), ( <sup>3</sup> He,α).<br>J <sup>π</sup> : γ(θ) in (α,3nγ).                                                                                             |
| 1520.87 9             |                                          | C E  | j   | XREF: i(1570)k(1583).                                                                                                                                                                 |
| 1529.514 22           | 3/2 <sup>+</sup> , 5/2 <sup>+</sup>      | CDE  | jK  | J <sup>π</sup> : γ to 3/2 <sup>+</sup> .<br>XREF: D(1584)i(1570)J(1583)k(1583).                                                                                                       |
| 1570.16 21            | (15/2 <sup>+</sup> )                     | B    |     | J <sup>π</sup> : L=0 in (d,p).<br>XREF: J(1645)K(1643).                                                                                                                               |
| 1580.85 11            |                                          | C E  | i k | J <sup>π</sup> : L=2 in (d,t) and γ to 7/2 <sup>-</sup> .<br>XREF: i(1680)J(1666)K(1662).                                                                                             |
| 1587.37 4             | 1/2 <sup>+</sup>                         | CDE  | ijk | J <sup>π</sup> : L=(2) in (d,t).<br>XREF: i(1680).                                                                                                                                    |
| 1652.64 3             | 5/2 <sup>+</sup>                         | C E  | JK  | J <sup>π</sup> : L=1 in (d,p), (d,t) and γ to 7/2 <sup>-</sup> .<br>XREF: J(1710).                                                                                                    |
| 1670.25 3             | (3/2 <sup>+</sup> , 5/2 <sup>+</sup> )   | C E  | ijk | J <sup>π</sup> : L=0 in (d,t).<br>XREF: i(1750)J(1727)K(1726).                                                                                                                        |
| 1699.88 4             | 3/2 <sup>-</sup>                         | CDE  | ijk | J <sup>π</sup> : L=4 in (d,t), ( <sup>3</sup> He,α).<br>XREF: D(1754)i(1750)J(1755).                                                                                                  |
| 1713.54 3             | 1/2 <sup>+</sup>                         | C E  | J   | J <sup>π</sup> : L=2 in (t,d).<br>XREF: i(1750)j(1770).                                                                                                                               |
| 1732.5 10             | 7/2 <sup>+</sup> , 9/2 <sup>+</sup>      | E    | ijk | J <sup>π</sup> : γ's to 3/2 <sup>+</sup> and 7/2 <sup>-</sup> .<br>XREF: j(1770).                                                                                                     |
| 1759.83 3             | 3/2 <sup>+</sup> , 5/2 <sup>+</sup>      | CDE  | ijk | J <sup>π</sup> : γ to 3/2 <sup>+</sup> . Possible γ to 5/2 <sup>+</sup> .<br>XREF: j(1770).                                                                                           |
| 1766.36 5             | 3/2 <sup>-</sup> , 5/2, 7/2 <sup>+</sup> | E    | ij  | J <sup>π</sup> : γ to (1/2 <sup>+</sup> ).<br>XREF: J(1809)k(1814).                                                                                                                   |
| 1770.68 5             |                                          | C E  | j   | J <sup>π</sup> : L=2 in (d,t).<br>XREF: k(1814).                                                                                                                                      |
| 1775.04? 6            | (1/2, 3/2, 5/2 <sup>+</sup> )            | E    | j   | J <sup>π</sup> : L=(3) in (d,p), L=3 in (t,d).<br>XREF: k(1826).                                                                                                                      |
| 1813.09 7             | 3/2 <sup>+</sup> , 5/2 <sup>+</sup>      | C E  | Jk  | XREF: k(1826).                                                                                                                                                                        |
| 1820.2 7              | 5/2 <sup>-</sup> , 7/2 <sup>-</sup>      | CD   | k   | J <sup>π</sup> : L=4 in (d,t).<br>XREF: D(1857)J(1857).                                                                                                                               |
| 1824 3                |                                          | C    | k   | J <sup>π</sup> : L=2 in (t,d).                                                                                                                                                        |
| 1832.46 4             | 7/2 <sup>+</sup> , 9/2 <sup>+</sup>      | E    | Jk  |                                                                                                                                                                                       |
| 1851.37 22            | 21/2 <sup>(-)</sup>                      | B    |     |                                                                                                                                                                                       |
| 1851.37+x             |                                          | B    |     |                                                                                                                                                                                       |
| 1865.19 4             | 3/2 <sup>+</sup> , 5/2 <sup>+</sup>      | CDE  | J   |                                                                                                                                                                                       |

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**Adopted Levels, Gammas (continued)**

| $^{125}\text{Te}$ Levels (continued) |                                           |      |     |                                                                                                                                                                              |
|--------------------------------------|-------------------------------------------|------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| E(level) <sup>†</sup>                | J <sup>π</sup>                            | XREF |     | Comments                                                                                                                                                                     |
| 1888 3                               |                                           | C    | JK  | XREF: C(1888)J(1881)K(1886).<br>E(level): Average of 1888 keV <i>I</i> in (d,p), 1881 keV <i>S</i> in (d,t) and 1886 keV <i>S</i> in ( $^3\text{He},\alpha$ ).               |
| 1899.21 5                            | 3/2 <sup>+</sup> ,5/2,7/2 <sup>+</sup>    | E    | j   | XREF: j(1900).<br>J <sup>π</sup> : $\gamma$ 's to 3/2 <sup>+</sup> and 7/2 <sup>+</sup> .                                                                                    |
| 1905.17 3                            | 3/2 <sup>+</sup> ,5/2 <sup>+</sup>        | C E  | jk  | XREF: j(1900)k(1909).<br>J <sup>π</sup> : $\gamma$ 's to 1/2 <sup>+</sup> and 7/2 <sup>+</sup> .                                                                             |
| 1911.17 5                            | 3/2 <sup>-</sup> ,5/2,7/2 <sup>+</sup>    | E    | k   | XREF: k(1909).<br>J <sup>π</sup> : $\gamma$ to 7/2 <sup>-</sup> and $\gamma$ from 3/2 <sup>+</sup> .                                                                         |
| 1918.59 4                            | 3/2 <sup>+</sup> ,5/2 <sup>+</sup>        | C E  | Jk  | XREF: J(1926)k(1922).<br>J <sup>π</sup> : L=2 in (d,t).                                                                                                                      |
| 1932.79 8                            | 5/2 <sup>-</sup> ,7/2 <sup>-</sup>        | CDE  |     | XREF: D(1925).<br>J <sup>π</sup> : L=3 in (t,d).                                                                                                                             |
| 1956.701 21                          | 3/2 <sup>-</sup>                          | CDE  | J   | XREF: J(1951).<br>J <sup>π</sup> : L=1 in (d,p), (d,t) and $\gamma$ to 5/2 <sup>+</sup> .                                                                                    |
| 1969.41 10                           | 7/2 <sup>+</sup> ,9/2 <sup>+</sup>        | E    | JK  | J <sup>π</sup> : L=4 in (d,t).                                                                                                                                               |
| 1978.77 4                            | 1/2 <sup>-</sup> ,3/2                     | E    |     | J <sup>π</sup> : $\gamma$ 's to 1/2 <sup>+</sup> and 5/2 <sup>-</sup> and populated by strong primary $\gamma$ from 1/2 <sup>+</sup> capture state.                          |
| 1982.27 19                           | 5/2 <sup>-</sup>                          | CDE  | i   | XREF: D(1978)i(2000).<br>J <sup>π</sup> : L=3 in (t,d) and $\gamma$ to 3/2 <sup>+</sup> .                                                                                    |
| 1990.66 5                            | 1/2 <sup>+</sup>                          | E    | iJ  | XREF: i(2000)J(1985).<br>J <sup>π</sup> : L=0 in (d,t).                                                                                                                      |
| 1995.18 5                            | 9/2 <sup>-</sup>                          | C E  | ijK | XREF: i(2000)j(2008)K(2007).<br>J <sup>π</sup> : L=5 in ( $^3\text{He},\alpha$ ), $\gamma$ to 5/2 <sup>-</sup> .                                                             |
| 2009.39 3                            | 3/2 <sup>-</sup>                          | CDE  | ij  | XREF: D(2005)i(2000)j(2008).<br>J <sup>π</sup> : L=1 in (d,p) and $\gamma$ to 5/2 <sup>+</sup> .                                                                             |
| 2021.36 6                            | 3/2 <sup>+</sup> ,5/2,7/2 <sup>+</sup>    | E    |     | J <sup>π</sup> : $\gamma$ 's to 3/2 <sup>+</sup> and 7/2 <sup>+</sup> .                                                                                                      |
| 2047.28? 4                           | 1/2 <sup>-</sup> ,3/2 <sup>-</sup>        | CDE  | Jk  | XREF: C(2049)D(2044)J(2042)k(2045).<br>J <sup>π</sup> : L=1 in (d,p), (t,d), (d,t).                                                                                          |
| 2048.96 6                            | 3/2 <sup>+</sup> ,5/2,7/2 <sup>+</sup>    | E    | k   | XREF: k(2045).<br>J <sup>π</sup> : $\gamma$ 's to 3/2 <sup>+</sup> and 7/2 <sup>+</sup> .                                                                                    |
| 2060.89 4                            | 3/2 <sup>+</sup> ,5/2 <sup>+</sup>        | C E  | J   | XREF: J(2058).<br>J <sup>π</sup> : L=2 in (d,t).                                                                                                                             |
| 2067.56? 5                           |                                           | E    |     | J <sup>π</sup> : $\gamma$ 's to 3/2 <sup>+</sup> and 5/2 <sup>+</sup> .                                                                                                      |
| 2077.05 7                            | 1/2 <sup>-</sup> ,3/2,5/2 <sup>+</sup>    | E    | i   | XREF: i(2090).<br>J <sup>π</sup> : $\gamma$ 's to 1/2 <sup>+</sup> and 5/2 <sup>-</sup> .                                                                                    |
| 2079.5 9                             | (7/2 <sup>+</sup> ,9/2 <sup>+</sup> )     | C    | ijK | XREF: i(2090)J(2080)K(2082).<br>J <sup>π</sup> : L=(4) in (d,t), ( $^3\text{He},\alpha$ ).                                                                                   |
| 2087.02 9                            | (1/2,3/2,5/2 <sup>+</sup> )               | E    | i   | XREF: i(2090).<br>J <sup>π</sup> : $\gamma$ to (1/2 <sup>+</sup> ).                                                                                                          |
| 2108.55 5                            | 1/2 <sup>-</sup> ,3/2                     | E    | i k | XREF: i(2090)k(2105).<br>J <sup>π</sup> : $\gamma$ 's to 1/2 <sup>+</sup> and 5/2 <sup>-</sup> and populated by strong primary $\gamma$ from 1/2 <sup>+</sup> capture state. |
| 2112.5 9                             | (5/2 <sup>-</sup> ,7/2 <sup>-</sup> )     | CD   | Jk  | XREF: D(2105)J(2103)k(2105).<br>J <sup>π</sup> : L=(3) in (d,t), (t,d).                                                                                                      |
| 2126.8 9                             |                                           | C    | J   | XREF: J(2121).<br>J <sup>π</sup> : 1999Ho01 suggest L(d,p) > 3.                                                                                                              |
| 2129.65 5                            | 1/2 <sup>-</sup> ,3/2                     | E    |     | J <sup>π</sup> : $\gamma$ to 5/2 <sup>-</sup> and populated by strong primary $\gamma$ from 1/2 <sup>+</sup> capture state.                                                  |
| 2132.75 5                            | 3/2 <sup>+</sup> ,5/2,7/2 <sup>+</sup>    | E    |     | J <sup>π</sup> : $\gamma$ 's to 3/2 <sup>+</sup> and 7/2 <sup>+</sup> .                                                                                                      |
| 2145.67 17                           |                                           | c E  |     | XREF: c(2153).<br>J <sup>π</sup> : $\gamma$ to 5/2 <sup>+</sup> .                                                                                                            |
| 2149.61 3                            | (1/2 <sup>-</sup> ,3/2,5/2 <sup>+</sup> ) | c E  |     | XREF: c(2153).<br>J <sup>π</sup> : $\gamma$ 's to (1/2 <sup>+</sup> ) and 5/2 <sup>-</sup> .                                                                                 |
| 2159.5 21                            | (7/2 <sup>+</sup> ,9/2 <sup>+</sup> )     |      | JK  | XREF: J(2157).<br>J <sup>π</sup> : L=(4) in (d,t).                                                                                                                           |

Continued on next page (footnotes at end of table)

**Adopted Levels, Gammas (continued)**

| $^{125}\text{Te}$ Levels (continued) |                                             |            |           |                                                                                                                                               |
|--------------------------------------|---------------------------------------------|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| E(level) <sup>†</sup>                | J <sup>π</sup>                              | XREF       |           | Comments                                                                                                                                      |
| 2174.8 3                             |                                             | <b>B</b>   |           |                                                                                                                                               |
| 2176.06 6                            | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup>    | dE         | j         | XREF: d(2178)j(2175).<br>J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 5/2 <sup>+</sup> .                                                      |
| 2181.96 5                            | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup>    | dE         | j         | XREF: d(2178)j(2175).<br>J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 5/2 <sup>+</sup> .                                                      |
| 2187.7 12                            | (7/2 <sup>+</sup> , 9/2 <sup>+</sup> )      | <b>C</b>   | <b>JK</b> | XREF: J(2197)K(2190).<br>J <sup>π</sup> : L=(4) in ( <sup>3</sup> He, α), (d, t).                                                             |
| 2204.19 5                            |                                             | <b>C E</b> |           | J <sup>π</sup> : γ's to 3/2 <sup>+</sup> and 5/2 <sup>-</sup> .                                                                               |
| 2220.25 6                            | 3/2 <sup>+</sup> , 5/2, 7/2 <sup>+</sup>    | c E        | jk        | XREF: c(2224)j(2221)k(2226).<br>J <sup>π</sup> : γ's to 3/2 <sup>+</sup> and 7/2 <sup>+</sup> .                                               |
| 2226.53 4                            | 3/2 <sup>+</sup>                            | c E        | jk        | XREF: c(2224)j(2221)k(2226).<br>J <sup>π</sup> : γ to 7/2 <sup>+</sup> and populated by strong primary γ from 1/2 <sup>+</sup> capture state. |
| 2231.92 6                            |                                             | <b>E</b>   | <b>k</b>  | XREF: k(2226).<br>J <sup>π</sup> : γ to 3/2 <sup>+</sup> .                                                                                    |
| 2247.31 6                            | 1/2 <sup>-</sup> , 3/2, 5/2 <sup>+</sup>    | cdE        |           | XREF: c(2250)d(2244).<br>J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 5/2 <sup>-</sup> .                                                      |
| 2251.16 5                            | (1/2, 3/2, 5/2 <sup>+</sup> )               | cdE        |           | XREF: c(2250)d(2244).<br>J <sup>π</sup> : γ to (1/2 <sup>+</sup> ).                                                                           |
| 2259.4 24                            |                                             |            | <b>K</b>  | Doublet structure.                                                                                                                            |
| 2270.89 5                            | 3/2 <sup>-</sup>                            | CDE        | i         | XREF: C(2274)D(2273)i(2280).<br>J <sup>π</sup> : L=(1) in (t, d) and γ to 5/2 <sup>+</sup> .                                                  |
| 2282.6 12                            |                                             | <b>C</b>   | <b>i</b>  | XREF: i(2280).                                                                                                                                |
| 2292.62 8                            |                                             | <b>C E</b> |           | XREF: C(2294).<br>J <sup>π</sup> : γ to 7/2 <sup>+</sup> and to < 7/2 <sup>+</sup> .                                                          |
| 2311.47 10                           | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup>    | dE         | k         | XREF: d(2311)k(2317).<br>J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 5/2 <sup>+</sup> .                                                      |
| 2313.72 7                            | 1/2, 3/2, 5/2 <sup>+</sup>                  | cdE        | k         | XREF: c(2316)d(2311)k(2317).<br>J <sup>π</sup> : γ to 1/2 <sup>+</sup> .                                                                      |
| 2315.75 9                            | (3/2, 5/2 <sup>+</sup> )                    | cdE        | k         | XREF: c(2316)d(2311)k(2317).<br>J <sup>π</sup> : γ's to (1/2 <sup>+</sup> ), 5/2 <sup>-</sup> and 5/2 <sup>+</sup> .                          |
| 2332.7 9                             |                                             | <b>Cd</b>  | <b>i</b>  | XREF: d(2346)i(2350).                                                                                                                         |
| 2351.25 7                            |                                             | <b>CdE</b> | <b>i</b>  | XREF: d(2346)i(2350).<br>J <sup>π</sup> : γ to 7/2 <sup>+</sup> and 5/2 <sup>-</sup> , 7/2, 9/2.                                              |
| 2372.94 8                            | (1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup> ) | <b>E</b>   | <b>K</b>  | XREF: K(2364).<br>J <sup>π</sup> : γ's to (1/2 <sup>+</sup> ) and 5/2 <sup>+</sup> .                                                          |
| 2375.11 22                           | (19/2 <sup>+</sup> )                        | <b>B</b>   |           | J <sup>π</sup> : γ(θ) in (α, 3n <sub>γ</sub> ).                                                                                               |
| 2375.4 9                             | 5/2 <sup>-</sup> , 7/2 <sup>-</sup>         | <b>CD</b>  |           | L=3 in (t, d).                                                                                                                                |
| 2379.72 5                            | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup>    | c E        |           | XREF: c(2382).<br>J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 5/2 <sup>+</sup> .                                                             |
| 2384.82 6                            |                                             | c E        | k         | XREF: c(2384)k(2389).                                                                                                                         |
| 2391.1 9                             |                                             | <b>C</b>   | <b>k</b>  | XREF: k(2389).<br>J <sup>π</sup> : 1999Ho01 suggest high L in (d, p).                                                                         |
| 2409.94 7                            |                                             | c E        |           | XREF: c(2412).<br>J <sup>π</sup> : γ to 5/2 <sup>+</sup> and 5/2 <sup>-</sup> and 5/2 <sup>-</sup> , 7/2 <sup>-</sup> .                       |
| 2415.52 6                            | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup>    | c E        |           | XREF: c(2412).<br>J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 5/2 <sup>+</sup> .                                                             |
| 2419.1 9                             |                                             | <b>C</b>   |           |                                                                                                                                               |
| 2426.2 12                            |                                             | <b>C</b>   | <b>K</b>  | XREF: K(247).<br>J <sup>π</sup> : 1999Ho01 suggest high L in (d, p).                                                                          |
| 2438.99 8                            | (3/2 <sup>-</sup> , 5/2 <sup>+</sup> )      | <b>C E</b> |           | J <sup>π</sup> : γ's to (1/2 <sup>+</sup> ) and 7/2 <sup>-</sup> .                                                                            |
| 2450.6 9                             |                                             | <b>C</b>   | <b>K</b>  | J <sup>π</sup> : 1999Ho01 suggest high L in (d, p).                                                                                           |
| 2466.58 5                            | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup>    | <b>C E</b> |           | J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 5/2 <sup>+</sup> .                                                                               |
| 2479.1 9                             |                                             | <b>C</b>   |           |                                                                                                                                               |
| 2488.4 9                             |                                             | <b>C</b>   | <b>k</b>  | XREF: k(2492).                                                                                                                                |
| 2495.73 8                            | 3/2, 5/2, 7/2 <sup>+</sup>                  | <b>C E</b> | <b>k</b>  | XREF: k(2492).<br>J <sup>π</sup> : γ's to 3/2 <sup>+</sup> , 5/2 <sup>+</sup> and 5/2 <sup>-</sup> .                                          |

Continued on next page (footnotes at end of table)

**Adopted Levels, Gammas (continued)** $^{125}\text{Te}$  Levels (continued)

| E(level) <sup>†</sup> | J <sup>π</sup>                                                    | XREF |   | Comments                                                                                                                                                                         |
|-----------------------|-------------------------------------------------------------------|------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2504.77 11            | 3/2 <sup>-</sup>                                                  | E    |   | J <sup>π</sup> : γ's to 3/2 <sup>+</sup> and 5/2 <sup>+</sup> .                                                                                                                  |
| 2522.45 7             |                                                                   | C E  |   | J <sup>π</sup> : L=1 in (d,p) and γ to 5/2 <sup>+</sup> .                                                                                                                        |
| 2528.75 9             |                                                                   | C E  | K | XREF: C(2525)K(2530).<br>J <sup>π</sup> : γ's to 3/2 <sup>+</sup> and 5/2 <sup>+</sup> .                                                                                         |
| 2542.0 12             | 3/2                                                               | C    |   |                                                                                                                                                                                  |
| 2550.48 6             |                                                                   | C E  | k | XREF: C(2547)k(2557).<br>J <sup>π</sup> : γ's to 1/2 <sup>+</sup> , 5/2 <sup>+</sup> and 5/2 <sup>-</sup> and populated by strong primary γ from 1/2 <sup>+</sup> capture state. |
| 2550.48+x 3           | 1/2,3/2,5/2 <sup>+</sup>                                          | B    |   |                                                                                                                                                                                  |
| 2560.99? 13           |                                                                   | C E  | k | XREF: C(2557)k(2557).<br>J <sup>π</sup> : γ to 1/2 <sup>+</sup> .                                                                                                                |
| 2568.27 5             | 1/2 <sup>+</sup> ,3/2,5/2 <sup>+</sup><br>(23/2 <sup>+</sup> )    | E    |   | J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 5/2 <sup>+</sup> .                                                                                                                  |
| 2570.2 3              |                                                                   | B    |   | J <sup>π</sup> : γ(θ) in (α,3nγ).                                                                                                                                                |
| 2585.67 7             |                                                                   | C E  | K | XREF: C(2590)K(2582).<br>J <sup>π</sup> : Populated by strong primary γ from 1/2 <sup>+</sup> capture state. γ's to 5/2 <sup>+</sup> and 7/2 <sup>+</sup> .                      |
| 2591.95 7             | 1/2 <sup>-</sup> ,3/2,5/2 <sup>+</sup>                            | C E  |   | XREF: C(2596).                                                                                                                                                                   |
| 2607.00 6             |                                                                   | C E  |   | J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 5/2 <sup>-</sup> .                                                                                                                  |
| 2611.6+x 3            |                                                                   | B    |   |                                                                                                                                                                                  |
| 2622.6 18             | (5/2 <sup>-</sup> ,7/2 <sup>-</sup> )                             | C    |   | J <sup>π</sup> : L=(3) in (d,p).                                                                                                                                                 |
| 2630.5 18             |                                                                   | C    |   |                                                                                                                                                                                  |
| 2642.3 18             | (1/2 <sup>-</sup> ,3/2 <sup>-</sup> )                             | C    | K | J <sup>π</sup> : L=(1) in (d,p).                                                                                                                                                 |
| 2649.99 4             |                                                                   | C E  |   | XREF: C(2651).<br>J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 7/2 <sup>-</sup> and populated by strong primary γ from 1/2 <sup>+</sup> capture state.                           |
| 2669.7 18             | 1/2,3/2,5/2 <sup>+</sup>                                          | C    |   |                                                                                                                                                                                  |
| 2680.2 21             |                                                                   | C    | K | XREF: K(2678).                                                                                                                                                                   |
| 2684.8 21             |                                                                   | C    |   |                                                                                                                                                                                  |
| 2689.71 17            |                                                                   | C E  |   | J <sup>π</sup> : γ to 5/2 <sup>+</sup> .                                                                                                                                         |
| 2706.11 12            |                                                                   | C E  |   | J <sup>π</sup> : γ to 3/2 <sup>+</sup> .                                                                                                                                         |
| 2711.6 12             |                                                                   | C    |   |                                                                                                                                                                                  |
| 2717.3 12             |                                                                   | C    |   |                                                                                                                                                                                  |
| 2723.1 15             |                                                                   | C    |   |                                                                                                                                                                                  |
| 2729.28 9             |                                                                   | C E  | K | J <sup>π</sup> : γ to 1/2 <sup>+</sup> .                                                                                                                                         |
| 2743.1 12             |                                                                   | C    |   |                                                                                                                                                                                  |
| 2751.79 12            | 1/2 <sup>-</sup> ,3/2 <sup>-</sup><br>(1/2,3/2,5/2 <sup>+</sup> ) | C E  |   | J <sup>π</sup> : L=1 in (d,p).                                                                                                                                                   |
| 2753.8? 3             |                                                                   | E    |   | J <sup>π</sup> : γ to (1/2 <sup>+</sup> ).                                                                                                                                       |
| 2761.5 12             | 3/2 <sup>-</sup>                                                  | C    |   |                                                                                                                                                                                  |
| 2770.76 7             |                                                                   | C E  | k | XREF: C(2768)k(2772).<br>J <sup>π</sup> : L=1 in (d,p), γ to 5/2 <sup>+</sup> .                                                                                                  |
| 2776.60 12            |                                                                   | C E  | k | XREF: C(2773)k(2772).                                                                                                                                                            |
| 2785.36 8             | 3/2                                                               | C E  |   | J <sup>π</sup> : γ's to 5/2 <sup>+</sup> and 5/2 <sup>-</sup> and populated by strong primary γ from 1/2 <sup>+</sup> capture state.                                             |
| 2801.92 20            | 1/2 <sup>+</sup> ,3/2,5/2 <sup>+</sup>                            | C E  |   | XREF: C(2804).<br>J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 5/2 <sup>+</sup> .                                                                                                |
| 2814.40? 9            | 1/2 <sup>+</sup> ,3/2,5/2 <sup>+</sup>                            | c E  |   | XREF: c(2817).                                                                                                                                                                   |
| 2819.37? 14           |                                                                   | c E  |   | XREF: c(2817).                                                                                                                                                                   |
| 2832.1 15             |                                                                   | C    |   |                                                                                                                                                                                  |
| 2840.8 15             |                                                                   | C    | k | XREF: k(2847).                                                                                                                                                                   |
| 2852.3 15             |                                                                   | C    | k | XREF: k(2847).                                                                                                                                                                   |
| 2860.8 15             |                                                                   | C    |   |                                                                                                                                                                                  |
| 2868.4 21             |                                                                   | C    |   |                                                                                                                                                                                  |
| 2874.3 24             |                                                                   | C    |   |                                                                                                                                                                                  |
| 2881.5 24             |                                                                   | C    |   |                                                                                                                                                                                  |
| 2888.5 13             |                                                                   | C    |   |                                                                                                                                                                                  |
| 2898.09 9             | 1/2 <sup>+</sup> ,3/2,5/2 <sup>+</sup>                            | C E  |   | XREF: C(2900).<br>J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 5/2 <sup>+</sup> .                                                                                                |

Continued on next page (footnotes at end of table)

**Adopted Levels, Gammas (continued)** $^{125}\text{Te}$  Levels (continued)

| E(level) <sup>†</sup> | J <sup>π</sup>                           | XREF  | Comments                                                                                                                                                                  |
|-----------------------|------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2910.0 15             |                                          | C K   |                                                                                                                                                                           |
| 2927.3 21             |                                          | C     |                                                                                                                                                                           |
| 2932.7 21             |                                          | C     |                                                                                                                                                                           |
| 2936.67 10            |                                          | C E   | XREF: C(2939).                                                                                                                                                            |
| 2952.20 10            |                                          | C E   |                                                                                                                                                                           |
| 2965.4 21             | 1/2 <sup>-</sup> , 3/2 <sup>-</sup>      | C K   | J <sup>π</sup> : L=1 in (d,p).                                                                                                                                            |
| 2974.63 7             |                                          | E     |                                                                                                                                                                           |
| 2990.87 7             | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup> | C E   | J <sup>π</sup> : γ's to 1/2 <sup>+</sup> , 5/2 <sup>+</sup> .                                                                                                             |
| 3002.37 12            |                                          | E k   | XREF: k(3005).                                                                                                                                                            |
| 3008.2 15             |                                          | C k   | XREF: k(3005).                                                                                                                                                            |
| 3015.1 21             |                                          | C     |                                                                                                                                                                           |
| 3021.63 7             | 3/2                                      | C E   | XREF: C(3023).<br>J <sup>π</sup> : γ's to 1/2 <sup>+</sup> , 5/2 <sup>+</sup> and 5/2 <sup>-</sup> and populated by strong primary γ from 1/2 <sup>+</sup> capture state. |
| 3032.0 15             |                                          | C     |                                                                                                                                                                           |
| 3044.9 24             |                                          | C K   | XREF: K(3049).                                                                                                                                                            |
| 3060.2 15             |                                          | C     |                                                                                                                                                                           |
| 3072.38 7             |                                          | C E   | XREF: C(3071).<br>J <sup>π</sup> : γ's to 3/2 <sup>+</sup> and 5/2 <sup>+</sup> .                                                                                         |
| 3082.3 24             |                                          | C     |                                                                                                                                                                           |
| 3090.9 15             |                                          | C     |                                                                                                                                                                           |
| 3098.3 21             |                                          | C     |                                                                                                                                                                           |
| 3106.64 7             | 1/2 <sup>+</sup> , 3/2                   | E K   | J <sup>π</sup> : γ to 5/2 <sup>+</sup> and populated by strong primary γ from 1/2 <sup>+</sup> capture state.                                                             |
| 3130.1 12             | 1/2 <sup>-</sup> , 3/2 <sup>-</sup>      | C     | J <sup>π</sup> : L=1 in (d,p).                                                                                                                                            |
| 3142.30 7             | 3/2                                      | C E   | J <sup>π</sup> : γ's to 1/2 <sup>+</sup> , 5/2 <sup>+</sup> and 5/2 <sup>-</sup> and populated by strong primary γ from 1/2 <sup>+</sup> capture state.                   |
| 3151.0 24             |                                          | C     |                                                                                                                                                                           |
| 3169.5 15             |                                          | C K   | XREF: K(3164).                                                                                                                                                            |
| 3174.41 8             | 1/2 <sup>-</sup> , 3/2                   | E     | J <sup>π</sup> : γ to 5/2 <sup>-</sup> and populated by strong primary γ from 1/2 <sup>+</sup> capture state.                                                             |
| 3183.84 11            | 1/2, 3/2, 5/2 <sup>+</sup>               | E     | J <sup>π</sup> : γ to 1/2 <sup>+</sup> .                                                                                                                                  |
| 3189 4                |                                          | C     |                                                                                                                                                                           |
| 3201.0 12             |                                          | C     |                                                                                                                                                                           |
| 3208.37 8             | 1/2, 3/2                                 | C E k | XREF: C(3211)k(3215).<br>J <sup>π</sup> : Populated by strong primary γ from 1/2 <sup>+</sup> capture state.                                                              |
| 3219 3                |                                          | C K   | XREF: K(3215).                                                                                                                                                            |
| 3236 3                |                                          | C     |                                                                                                                                                                           |
| 3259.8 21             |                                          | C     |                                                                                                                                                                           |
| 3273 4                |                                          | C     |                                                                                                                                                                           |
| 3291.59? 8            |                                          | E     |                                                                                                                                                                           |
| 3298 3                |                                          | C     |                                                                                                                                                                           |
| 3330 3                |                                          | C     |                                                                                                                                                                           |
| 3334 8                | 1/2 <sup>-</sup> , 3/2 <sup>-</sup>      | C K   | XREF: K(3339).<br>J <sup>π</sup> : L=1 in (d,p).                                                                                                                          |
| 3375 5                |                                          | K     |                                                                                                                                                                           |
| 3386 8                |                                          | C     |                                                                                                                                                                           |
| 3430.03 11            | 1/2 <sup>-</sup> , 3/2 <sup>-</sup>      | C E   | J <sup>π</sup> : L=1 in (d,p).                                                                                                                                            |
| 3458 8                |                                          | C     |                                                                                                                                                                           |
| 3488 5                |                                          | K     |                                                                                                                                                                           |
| 3518 8                |                                          | C     |                                                                                                                                                                           |
| 3532.16 10            |                                          | C E   | XREF: C(3538).                                                                                                                                                            |
| 3554.76 12            |                                          | E     |                                                                                                                                                                           |
| 3564.20? 12           | 1/2 <sup>-</sup> , 3/2, 5/2 <sup>+</sup> | E K   | J <sup>π</sup> : γ's to 1/2 <sup>+</sup> and 5/2 <sup>-</sup> .                                                                                                           |
| 3598 8                | 1/2 <sup>-</sup> , 3/2 <sup>-</sup>      | C     | J <sup>π</sup> : L=1 in (d,p).                                                                                                                                            |
| 3627 8                |                                          | C     |                                                                                                                                                                           |
| 3655 8                | 1/2 <sup>-</sup> , 3/2 <sup>-</sup>      | C     | J <sup>π</sup> : L=1 in (d,p).                                                                                                                                            |
| 3696 8                | (3/2 <sup>+</sup> , 5/2 <sup>+</sup> )   | C     | J <sup>π</sup> : L=(2) in (d,p).                                                                                                                                          |

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) $^{125}\text{Te}$  Levels (continued)

| E(level) <sup>†</sup> | J <sup>π</sup>                         | XREF | Comments                         |
|-----------------------|----------------------------------------|------|----------------------------------|
| 3721 8                | (3/2 <sup>+</sup> , 5/2 <sup>+</sup> ) | C    | J <sup>π</sup> : L=(2) in (d,p). |
| 3743 8                |                                        | C    |                                  |
| 3786 8                |                                        | C    |                                  |
| 3837 8                |                                        | C    |                                  |
| 3866 8                |                                        | C    |                                  |
| 3875 <sup>#</sup> 8   |                                        | C    |                                  |
| 3887 <sup>#</sup> 8   |                                        | C    |                                  |
| 3914 8                |                                        | C    |                                  |
| 3949 8                |                                        | C    |                                  |
| 3981 8                |                                        | C    |                                  |
| 4006 8                | 1/2 <sup>-</sup> , 3/2 <sup>-</sup>    | C    | J <sup>π</sup> : L=1 in (d,p).   |
| 4021 8                |                                        | C    |                                  |
| 4041 8                |                                        | C    |                                  |
| 4090 10               |                                        | C    |                                  |
| 4127 10               |                                        | C    |                                  |
| 4141 10               |                                        | C    |                                  |
| 4163 10               |                                        | C    |                                  |
| 4192 10               |                                        | C    |                                  |
| 4213 10               |                                        | C    |                                  |
| 4234 10               |                                        | C    |                                  |
| 4255 10               | 1/2 <sup>-</sup> , 3/2 <sup>-</sup>    | C    | J <sup>π</sup> : L=1 in (d,p).   |
| 4270 10               |                                        | C    |                                  |
| 4302 10               |                                        | C    |                                  |
| 4334 10               |                                        | C    |                                  |
| 4360 10               |                                        | C    |                                  |
| 4377 10               |                                        | C    |                                  |
| 4404 10               |                                        | C    |                                  |
| 4433 10               |                                        | C    |                                  |
| 4458 10               |                                        | C    |                                  |
| 4476 10               |                                        | C    |                                  |
| 4494 10               | 1/2 <sup>-</sup> , 3/2 <sup>-</sup>    | C    | J <sup>π</sup> : L=1 in (d,p).   |
| 4515 10               |                                        | C    |                                  |
| 4532 10               |                                        | C    |                                  |
| 4551 10               |                                        | C    |                                  |
| 4607 10               |                                        | C    |                                  |
| 4621 10               |                                        | C    |                                  |
| 4651 10               |                                        | C    |                                  |
| 4677 10               |                                        | C    |                                  |
| 4689 10               |                                        | C    |                                  |
| 4741 10               |                                        | C    |                                  |
| 4770 10               | 1/2 <sup>-</sup> , 3/2 <sup>-</sup>    | C    | J <sup>π</sup> : L=1 in (d,p).   |
| 4797 10               |                                        | C    |                                  |
| 4836 10               |                                        | C    |                                  |
| 4849 10               |                                        | C    |                                  |
| 4880 10               |                                        | C    |                                  |
| 4914 10               |                                        | C    |                                  |
| 4928 10               |                                        | C    |                                  |
| 4961 10               |                                        | C    |                                  |
| 4977 10               |                                        | C    |                                  |
| 5008 10               |                                        | C    |                                  |
| 5022 10               | 1/2 <sup>-</sup> , 3/2 <sup>-</sup>    | C    | J <sup>π</sup> : L=1 in (d,p).   |
| 5055 10               |                                        | C    |                                  |
| 5083 10               |                                        | C    |                                  |
| 5100 10               |                                        | C    |                                  |
| 5125 10               |                                        | C    |                                  |
| 5141 10               |                                        | C    |                                  |

Continued on next page (footnotes at end of table)



**Adopted Levels, Gammas (continued)** $^{125}\text{Te}$  Levels (continued)

| E(level) <sup>†</sup> | J <sup>π</sup>      | XREF | Comments                         |
|-----------------------|---------------------|------|----------------------------------|
| 5161 10               | (1/2 <sup>+</sup> ) | C    | J <sup>π</sup> : L=(0) in (d,p). |
| 5189 10               |                     | C    |                                  |
| 5201 10               |                     | C    |                                  |
| 5248 10               |                     | C    |                                  |
| 5291 10               | (1/2 <sup>+</sup> ) | C    | J <sup>π</sup> : L=(0) in (d,p). |
| 5314 10               |                     | C    |                                  |
| 5329 10               |                     | C    |                                  |
| 5375 10               | (1/2 <sup>+</sup> ) | C    | J <sup>π</sup> : L=(0) in (d,p). |
| 5390 10               |                     | C    |                                  |
| 5406 10               |                     | C    |                                  |
| 5437 10               |                     | C    |                                  |
| 5452 10               |                     | C    |                                  |
| 5479 10               | (1/2 <sup>+</sup> ) | C    | J <sup>π</sup> : L=(0) in (d,p). |
| 5506 10               |                     | C    |                                  |
| 5546 10               |                     | C    |                                  |
| 5570 10               |                     | C    |                                  |
| 5592 10               |                     | C    |                                  |
| 5629 10               |                     | C    |                                  |
| 5641 10               |                     | C    |                                  |
| 5660 10               |                     | C    |                                  |
| 5679 10               |                     | C    |                                  |
| 5702 10               |                     | C    |                                  |
| 5725 10               |                     | C    |                                  |
| 5752 10               |                     | C    |                                  |
| 5785 10               |                     | C    |                                  |
| 5804 10               |                     | C    |                                  |
| 5837 10               |                     | C    |                                  |
| 5867 10               |                     | C    |                                  |
| 5903 10               |                     | C    |                                  |
| 5941 10               |                     | C    |                                  |
| 5966 10               |                     | C    |                                  |
| 6012 10               |                     | C    |                                  |
| 6032 10               |                     | C    |                                  |
| 6049 10               |                     | C    |                                  |
| 6084 10               |                     | C    |                                  |
| 6126 10               |                     | C    |                                  |

<sup>†</sup> From a least-squares fit to the adopted E $\gamma$ 's for levels connecting with  $\gamma$ 's, others from (d,p), unless otherwise noted.

<sup>‡</sup> The E1 81  $\gamma$  to 9/2<sup>-</sup> requires J<sup>π</sup>(402 level)  $\geq$  7/2<sup>+</sup> and so the 402 gs transition has mult M2 or higher. From B(M2)(W.u.) < 10 (RUL), one gets T<sub>1/2</sub>(402 level) > 1.8 ms. This is highly unlikely and so there is a problem with the placement of one or more of the  $\gamma$ 's from this proposed level.

<sup>#</sup> (d,p) experiment suggests L=1 for a sum peak of 3875 and 3887 keV.

## Adopted Levels, Gammas (continued)

| $E_i(\text{level})$ | $J_i^\pi$         | $E_\gamma^{\ddagger}$   | $I_\gamma^a$         | $E_f$   | $J_f^\pi$         | Mult. <sup>c</sup> | $\gamma(^{125}\text{Te})$ |                  | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------|-------------------|-------------------------|----------------------|---------|-------------------|--------------------|---------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     |                   |                         |                      |         |                   |                    | $\delta^d$                | $\alpha^\dagger$ |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 35.4925             | 3/2 <sup>+</sup>  | 35.4925 5               | 100                  | 0.0     | 1/2 <sup>+</sup>  | M1+E2              | 0.031 3                   | 13.69            | $\alpha(\text{K})=11.69$ 17; $\alpha(\text{L})=1.602$ 25; $\alpha(\text{M})=0.321$ 5;<br>$\alpha(\text{N}+..)=0.0699$ 11<br>$\alpha(\text{N})=0.0632$ 10; $\alpha(\text{O})=0.00675$ 10<br>B(M1)(W.u.)=0.0226 4; B(E2)(W.u.)=11.9 24<br>$E_\gamma$ : From $^{125}\text{I}$ $\varepsilon$ decay.<br>$\delta$ : From 1982Br16. Other: +0.027 1 (1977Kr13).<br>$\alpha(\text{K})=185$ 3; $\alpha(\text{L})=133.0$ 19; $\alpha(\text{M})=30.9$ 5;<br>$\alpha(\text{N}+..)=6.49$ 9<br>$\alpha(\text{N})=5.96$ 9; $\alpha(\text{O})=0.528$ 8<br>B(M4)(W.u.)=3.44 10<br>Additional information 2.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 144.775             | 11/2 <sup>-</sup> | 109.276 15              | 100 1                | 35.4925 | 3/2 <sup>+</sup>  | M4                 |                           | 356              | $\alpha(\text{K})=39.5$ 6; $\alpha(\text{L})=171.0$ 24; $\alpha(\text{M})=40.1$ 6;<br>$\alpha(\text{N}+..)=7.97$ 12<br>$\alpha(\text{N})=7.42$ 11; $\alpha(\text{O})=0.547$ 8<br>B(E5)(W.u.)=0.0400 11<br>$\alpha$ : $\alpha(\text{K})+(1.33)\alpha(\text{L})$ (1978Ba45).<br>B(M1)(W.u.)=0.00377 10; B(E2)(W.u.)=30.2 16<br>$\alpha(\text{K})=0.1376$ 21; $\alpha(\text{L})=0.0216$ 5; $\alpha(\text{M})=0.00437$ 9;<br>$\alpha(\text{N}+..)=0.000936$ 19<br>$\alpha(\text{N})=0.000850$ 17; $\alpha(\text{O})=8.57\times 10^{-5}$ 16<br>$\delta$ : From $^{125}\text{Sb}$ $\beta^-$ decay.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                     |                   | 144.780 <sup>h</sup> 25 | 1.4 $\times 10^{-4}$ | 0.0     | 1/2 <sup>+</sup>  | [E5]               |                           | 259              | $\alpha(\text{K})=0.304$ 5; $\alpha(\text{L})=0.0402$ 6; $\alpha(\text{M})=0.00796$ 12;<br>$\alpha(\text{N}+..)=0.001697$ 24<br>$\alpha(\text{N})=0.001541$ 22; $\alpha(\text{O})=0.0001558$ 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 321.090             | 9/2 <sup>-</sup>  | 176.314 2               | 100                  | 144.775 | 11/2 <sup>-</sup> | M1+E2              | -0.60 2                   | 0.164 3          | $\alpha(\text{K})=0.1600$ 23; $\alpha(\text{L})=0.0268$ 4; $\alpha(\text{M})=0.00552$ 8;<br>$\alpha(\text{N}+..)=0.001200$ 17<br>$\alpha(\text{N})=0.001086$ 16; $\alpha(\text{O})=0.0001137$ 16<br>$\alpha(\text{K})=0.01278$ 18; $\alpha(\text{L})=0.00179$ 3; $\alpha(\text{M})=0.000359$ 5;<br>$\alpha(\text{N}+..)=7.75\times 10^{-5}$ 11<br>$\alpha(\text{N})=7.02\times 10^{-5}$ 10; $\alpha(\text{O})=7.30\times 10^{-6}$ 11<br>B(M1)(W.u.)=0.00192 14; B(E2)(W.u.)=17.9 8<br>$\alpha(\text{K})=0.00995$ 14; $\alpha(\text{L})=0.001398$ 20; $\alpha(\text{M})=0.000281$ 4; $\alpha(\text{N}+..)=6.06\times 10^{-5}$ 9<br>$\alpha(\text{N})=5.49\times 10^{-5}$ 8; $\alpha(\text{O})=5.69\times 10^{-6}$ 8<br>B(M1)(W.u.)=0.00130 11; B(E2)(W.u.)=24.2 9<br>$\alpha(\text{L})=8.79$ 15; $\alpha(\text{M})=1.76$ 3; $\alpha(\text{N}+..)=0.384$ 7<br>$\alpha(\text{N})=0.346$ 6; $\alpha(\text{O})=0.0373$ 7<br>B(M1)(W.u.)=0.107 7<br>$\alpha(\text{K})=0.01172$ 17; $\alpha(\text{L})=0.001511$ 22; $\alpha(\text{M})=0.000302$ |
| 402.09?             | 7/2 <sup>+</sup>  | 81.02 <sup>#h</sup> 4   | 63 4                 | 321.090 | 9/2 <sup>-</sup>  | E1                 |                           | 0.354            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                     |                   | 366.56 <sup>#h</sup> 11 | 100 7                | 35.4925 | 3/2 <sup>+</sup>  |                    |                           |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                     |                   | 401.95 <sup>#h</sup> 12 | 78 7                 | 0.0     | 1/2 <sup>+</sup>  | [M3]               |                           | 0.193            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 443.562             | 3/2 <sup>+</sup>  | 408.065 10              | 59.3 4               | 35.4925 | 3/2 <sup>+</sup>  | M1+E2              | +1.50 7                   | 0.01500          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                     |                   | 443.555 9               | 100.0 6              | 0.0     | 1/2 <sup>+</sup>  | M1+E2              | -2.3 1                    | 0.01169          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 463.3668            | 5/2 <sup>+</sup>  | 19.80 6                 | 0.069 3              | 443.562 | 3/2 <sup>+</sup>  | [M1]               |                           | 10.93 19         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                     |                   | 427.874 4               | 100 2                | 35.4925 | 3/2 <sup>+</sup>  | M1+E2              | -0.538 11                 | 0.01360          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## Adopted Levels, Gammas (continued)

| $\gamma(^{125}\text{Te})$ (continued) |                     |                         |                    |                     |                                      |                    |            |                  | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------|---------------------|-------------------------|--------------------|---------------------|--------------------------------------|--------------------|------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $E_i(\text{level})$                   | $J_i^\pi$           | $E_\gamma^{\ddagger}$   | $I_\gamma^a$       | $E_f$               | $J_f^\pi$                            | Mult. <sup>c</sup> | $\delta^d$ | $\alpha^\dagger$ |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 463.3668                              | 5/2 <sup>+</sup>    | 463.365 4               | 36.1 4             | 0.0                 | 1/2 <sup>+</sup>                     | E2                 |            | 0.01014          | 5; $\alpha(\text{N}+..)=6.59\times 10^{-5}$ 10<br>$\alpha(\text{N})=5.95\times 10^{-5}$ 9; $\alpha(\text{O})=6.40\times 10^{-6}$ 9<br>B(M1)(W.u.)=0.0119 6; B(E2)(W.u.)=13.0 8<br>$\alpha(\text{K})=0.00861$ 12; $\alpha(\text{L})=0.001226$ 18; $\alpha(\text{M})=0.000246$ 4;<br>$\alpha(\text{N}+..)=5.31\times 10^{-5}$ 8<br>$\alpha(\text{N})=4.81\times 10^{-5}$ 7; $\alpha(\text{O})=4.96\times 10^{-6}$ 7<br>B(E2)(W.u.)=14.1 6<br>I <sub><math>\gamma</math></sub> : Other: 50 ( $\alpha, 3n\gamma$ ).<br>$\alpha(\text{K})=0.641$ 10; $\alpha(\text{L})=0.0875$ 14; $\alpha(\text{M})=0.0173$ 3;<br>$\alpha(\text{N}+..)=0.00367$ 6<br>$\alpha(\text{N})=0.00334$ 6; $\alpha(\text{O})=0.000331$ 6<br>B(E1)(W.u.)>7.8×10 <sup>-6</sup><br>$\alpha(\text{K})=0.1039$ 15; $\alpha(\text{L})=0.0185$ 3; $\alpha(\text{M})=0.00377$ 6;<br>$\alpha(\text{N}+..)=0.000796$ 12<br>$\alpha(\text{N})=0.000726$ 11; $\alpha(\text{O})=7.00\times 10^{-5}$ 11<br>B(M1)(W.u.)>0.00075; B(E2)(W.u.)>32<br>$\delta$ : Weighted av from +1.3 2 (1997De38), +1.74 9<br>(1998Ro20) +1.60 2 (1998Ro20).<br>$\alpha(\text{K})=0.01537$ 22; $\alpha(\text{L})=0.00230$ 4; $\alpha(\text{M})=0.000465$ 7;<br>$\alpha(\text{N}+..)=9.95\times 10^{-5}$ 14<br>$\alpha(\text{N})=9.04\times 10^{-5}$ 13; $\alpha(\text{O})=9.15\times 10^{-6}$ 13<br>B(E2)(W.u.)>9.5<br>Mult.: $\gamma(\theta)$ not consistent with $\Delta J=2$ in ( $\alpha, 3n\gamma$ ).<br>$\alpha(\text{K})=0.0279$ 4; $\alpha(\text{L})=0.00382$ 6; $\alpha(\text{M})=0.000769$ 11;<br>$\alpha(\text{N}+..)=0.0001685$ 24<br>$\alpha(\text{N})=0.0001521$ 22; $\alpha(\text{O})=1.643\times 10^{-5}$ 23<br>B(M2)(W.u.)>0.20<br>I <sub><math>\gamma</math></sub> : From <sup>124</sup> Te(n, $\gamma$ ) and Coul. ex. The data in <sup>125</sup> Sb $\beta^-$ decay conflict with these data.<br>I <sub><math>\gamma</math></sub> : From <sup>124</sup> Te(n, $\gamma$ ) and Coul. ex. The data in <sup>125</sup> Sb $\beta^-$ decay conflict with these data. |
| 525.228                               | 7/2 <sup>-</sup>    | 61.85 16                | 0.14 6             | 463.3668            | 5/2 <sup>+</sup>                     | [E1]               |            | 0.750 12         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                       |                     | 204.138 10              | 21.34 20           | 321.090             | 9/2 <sup>-</sup>                     | M1+E2              | +1.60 3    | 0.1270 19        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                       |                     | 380.452 8               | 100.0 3            | 144.775             | 11/2 <sup>-</sup>                    | E2                 |            | 0.0182           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                       |                     | 489.73 8                | 0.09 4             | 35.4925             | 3/2 <sup>+</sup>                     | [M2]               |            | 0.0327           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 537.851                               | (1/2 <sup>+</sup> ) | 502.6 4                 | 56.71 22           | 35.4925             | 3/2 <sup>+</sup>                     |                    |            |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                       |                     | 537.9 3                 | 100.0 3            | 0.0                 | 1/2 <sup>+</sup>                     |                    |            |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 636.0908                              | 7/2 <sup>+</sup>    | 110.895 12<br>172.719 8 | 0.0059 7<br>1.08 4 | 525.228<br>463.3668 | 7/2 <sup>-</sup><br>5/2 <sup>+</sup> | M1(+E2)            | -0.004 8   | 0.1484           | $\alpha(\text{K})=0.1280$ 18; $\alpha(\text{L})=0.01642$ 23; $\alpha(\text{M})=0.00328$ 5;<br>$\alpha(\text{N}+..)=0.000719$ 10<br>$\alpha(\text{N})=0.000649$ 9; $\alpha(\text{O})=7.04\times 10^{-5}$ 10<br>B(M1)(W.u.)=(0.0011 6); B(E2)(W.u.)=(0.0004 +17-4)<br>B(E1)(W.u.)=5.E-8 3<br>$\alpha(\text{K})=0.00723$ 11; $\alpha(\text{L})=0.000891$ 13; $\alpha(\text{M})=0.0001766$ 25; $\alpha(\text{N}+..)=3.85\times 10^{-5}$<br>$\alpha(\text{N})=3.47\times 10^{-5}$ 5; $\alpha(\text{O})=3.71\times 10^{-6}$ 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                       |                     | 314.95 11               | 0.023 3            | 321.090             | 9/2 <sup>-</sup>                     | (E1)               |            | 0.00833 12       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                       |                     | 491.29 14               | 0.027 13           | 144.775             | 11/2 <sup>-</sup>                    |                    |            |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Adopted Levels, Gammas (continued)

| $\gamma(^{125}\text{Te})$ (continued) |                  |                       |              |          |                     |                    |            |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------|------------------|-----------------------|--------------|----------|---------------------|--------------------|------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $E_i(\text{level})$                   | $J_i^\pi$        | $E_\gamma^{\ddagger}$ | $I_\gamma^a$ | $E_f$    | $J_f^\pi$           | Mult. <sup>c</sup> | $\delta^d$ | $\alpha^\dagger$ | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 636.0908                              | 7/2 <sup>+</sup> | 600.597 2             | 100.0 3      | 35.4925  | 3/2 <sup>+</sup>    | E2                 |            | 0.00494 7        | B(E2)(W.u.)=4.8 24<br>$\alpha(\text{K})=0.00423$ 6; $\alpha(\text{L})=0.000571$ 8; $\alpha(\text{M})=0.0001143$ 16; $\alpha(\text{N}+..)=2.48\times 10^{-5}$ 4<br>$\alpha(\text{N})=2.24\times 10^{-5}$ 4; $\alpha(\text{O})=2.36\times 10^{-6}$ 4                                                                                                                                                                                                                                                                                               |
| 642.206                               | 7/2 <sup>+</sup> | 116.955 11            | 5.27 5       | 525.228  | 7/2 <sup>-</sup>    | E1                 |            | 0.1264           | B(E1)(W.u.)>0.00011<br>$\alpha(\text{K})=0.1090$ 16; $\alpha(\text{L})=0.01398$ 20; $\alpha(\text{M})=0.00277$ 4; $\alpha(\text{N}+..)=0.000595$ 9<br>$\alpha(\text{N})=0.000539$ 8; $\alpha(\text{O})=5.56\times 10^{-5}$ 8<br>$\alpha(\text{K})=0.15$ 3; $\alpha(\text{L})=0.026$ 11; $\alpha(\text{M})=0.0052$ 23; $\alpha(\text{N}+..)=0.0011$ 5<br>$\alpha(\text{N})=0.0010$ 5; $\alpha(\text{O})=0.00010$ 4                                                                                                                                |
|                                       |                  | 178.842 5             | 0.68 5       | 463.3668 | 5/2 <sup>+</sup>    | M1+E2              |            | 0.18 5           | B(E2)(W.u.)>1.6<br>$\alpha(\text{K})=0.1233$ 18; $\alpha(\text{L})=0.0241$ 4; $\alpha(\text{M})=0.00493$ 7; $\alpha(\text{N}+..)=0.001032$ 15<br>$\alpha(\text{N})=0.000944$ 14; $\alpha(\text{O})=8.85\times 10^{-5}$ 13<br>$\alpha(\text{K})=0.00688$ 10; $\alpha(\text{L})=0.000847$ 12; $\alpha(\text{M})=0.0001680$ 24; $\alpha(\text{N}+..)=3.66\times 10^{-5}$ 5<br>$\alpha(\text{N})=3.30\times 10^{-5}$ 5; $\alpha(\text{O})=3.53\times 10^{-6}$ 5                                                                                      |
|                                       |                  | 198.654 11            | 0.257 12     | 443.562  | 3/2 <sup>+</sup>    | [E2]               |            | 0.1534           | B(E1)(W.u.)>8.5×10 <sup>-6</sup><br>I <sub>γ</sub> : Other: 15 ( $\alpha, 3\gamma$ ).<br>$\alpha(\text{K})=0.0267$ 4; $\alpha(\text{L})=0.00364$ 6; $\alpha(\text{M})=0.000733$ 11; $\alpha(\text{N}+..)=0.0001607$ 23<br>$\alpha(\text{N})=0.0001450$ 21; $\alpha(\text{O})=1.566\times 10^{-5}$ 22                                                                                                                                                                                                                                             |
|                                       |                  | 497.37 12             | 0.064 7      | 144.775  | 11/2 <sup>-</sup>   | [M2]               |            | 0.0312           | B(M2)(W.u.)>0.32<br>B(E2)(W.u.)>2.3<br>$\alpha(\text{K})=0.00412$ 6; $\alpha(\text{L})=0.000555$ 8; $\alpha(\text{M})=0.0001111$ 16; $\alpha(\text{N}+..)=2.41\times 10^{-5}$ 4<br>$\alpha(\text{N})=2.18\times 10^{-5}$ 3; $\alpha(\text{O})=2.29\times 10^{-6}$ 4                                                                                                                                                                                                                                                                              |
|                                       |                  | 606.713 3             | 100.0 4      | 35.4925  | 3/2 <sup>+</sup>    | E2                 |            | 0.00481 7        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 652.90                                | (5/2)            | 209.32 9              | 100 6        | 443.562  | 3/2 <sup>+</sup>    |                    |            |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                       |                  | 331.82 6              | 5.6 5        | 321.090  | 9/2 <sup>-</sup>    |                    |            |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                       |                  | 617.40 14             | 11.8 13      | 35.4925  | 3/2 <sup>+</sup>    |                    |            |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                       |                  | 652.8 4               | 5.9 20       | 0.0      | 1/2 <sup>+</sup>    |                    |            |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 671.4448                              | 5/2 <sup>+</sup> | 132.81 14             | 0.008 5      | 537.851  | (1/2 <sup>+</sup> ) |                    |            |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                       |                  | 208.077 5             | 2.20 12      | 463.3668 | 5/2 <sup>+</sup>    | M1+E2              | +0.105 14  | 0.0901           | $\alpha(\text{K})=0.0777$ 11; $\alpha(\text{L})=0.00999$ 15; $\alpha(\text{M})=0.00199$ 3; $\alpha(\text{N}+..)=0.000437$ 7<br>$\alpha(\text{N})=0.000394$ 6; $\alpha(\text{O})=4.27\times 10^{-5}$ 6<br>B(M1)(W.u.)=0.035 3; B(E2)(W.u.)=6.2 17<br>$\alpha(\text{K})=0.069$ 9; $\alpha(\text{L})=0.011$ 4; $\alpha(\text{M})=0.0022$ 7; $\alpha(\text{N}+..)=0.00047$ 14<br>$\alpha(\text{N})=0.00043$ 13; $\alpha(\text{O})=4.3\times 10^{-5}$ 10<br>$\alpha(\text{K})=0.00446$ 7; $\alpha(\text{L})=0.000553$ 8; $\alpha(\text{M})=0.0001100$ |
|                                       |                  | 227.891 10            | 1.18 6       | 443.562  | 3/2 <sup>+</sup>    | (M1+E2)            |            | 0.083 13         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                       |                  | 635.950 3             | 100.0 5      | 35.4925  | 3/2 <sup>+</sup>    | M1+E2              | +0.332 3   | 0.00515 8        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Adopted Levels, Gammas (continued)

| E <sub>i</sub> (level) | J <sup>π</sup> <sub>i</sub>         | E <sub>γ</sub> <sup>‡</sup>                                            | I <sub>γ</sub> <sup>a</sup>                       | E <sub>f</sub>                                                   | J <sup>π</sup> <sub>f</sub>                                                                                             | γ( <sup>125</sup> Te) (continued) |                | Comments                                                                                                                                                                                                                                                                                                                                    |
|------------------------|-------------------------------------|------------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        |                                     |                                                                        |                                                   |                                                                  |                                                                                                                         | Mult. <sup>c</sup>                | α <sup>†</sup> |                                                                                                                                                                                                                                                                                                                                             |
| 671.4448               | 5/2 <sup>+</sup>                    | 671.441 6                                                              | 16.00 11                                          | 0.0                                                              | 1/2 <sup>+</sup>                                                                                                        | E2                                | 0.00371 6      | 16; α(N+..)=2.42×10 <sup>-5</sup> 4<br>α(N)=2.18×10 <sup>-5</sup> 3; α(O)=2.37×10 <sup>-6</sup> 4<br>B(M1)(W.u.)=0.0511 25; B(E2)(W.u.)=9.6 5<br>α(K)=0.00318 5; α(L)=0.000421 6; α(M)=8.41×10 <sup>-5</sup> 12;<br>α(N+..)=1.83×10 <sup>-5</sup> 3<br>α(N)=1.652×10 <sup>-5</sup> 24; α(O)=1.748×10 <sup>-6</sup> 25<br>B(E2)(W.u.)=11.9 6 |
| 729.229                | 3/2 <sup>+</sup>                    | 191.43 5<br>285.57 5<br>693.75 2                                       | 2.50 5<br>≤8.3<br>100.0 5                         | 537.851<br>443.562<br>35.4925                                    | (1/2 <sup>+</sup> )<br>3/2 <sup>+</sup><br>3/2 <sup>+</sup>                                                             |                                   |                | Doublet.<br>I <sub>γ</sub> : From Coul. ex. and <sup>124</sup> Te(n,γ).<br>I <sub>γ</sub> : From Coul. ex. and <sup>124</sup> Te(n,γ).                                                                                                                                                                                                      |
| 786.577                | 7/2 <sup>-</sup>                    | 729.29 @ 3<br>261.42 7<br>465.55 5                                     | 27.28 20<br>3.5 9<br>100.0 9                      | 0.0<br>525.228<br>321.090                                        | 1/2 <sup>+</sup><br>7/2 <sup>-</sup><br>9/2 <sup>-</sup>                                                                |                                   |                |                                                                                                                                                                                                                                                                                                                                             |
| 840.91                 | 15/2 <sup>(-)</sup>                 | 641.85 f 5<br>696.1 1                                                  | 59.4 f 7<br>100                                   | 144.775<br>144.775                                               | 11/2 <sup>-</sup><br>11/2 <sup>-</sup>                                                                                  | Q                                 |                |                                                                                                                                                                                                                                                                                                                                             |
| 1017.73                | 7/2 <sup>(+)</sup>                  | 346.34 8<br>554.39 5<br>574.17 e 5                                     | 9 3<br>42 3<br>100.0 11                           | 671.4448<br>463.3668<br>443.562                                  | 5/2 <sup>+</sup><br>5/2 <sup>+</sup><br>3/2 <sup>+</sup>                                                                | D+Q<br>Q<br>Q                     |                |                                                                                                                                                                                                                                                                                                                                             |
| 1029.4                 | 9/2 <sup>(+)</sup>                  | 566.0                                                                  | 100                                               | 463.3668                                                         | 5/2 <sup>+</sup>                                                                                                        |                                   |                |                                                                                                                                                                                                                                                                                                                                             |
| 1053.85                | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> | 382.1<br>411.55 22<br>516.69 18<br>590.39 g 5<br>610.22 5<br>1018.36 5 | 17 5<br>4.3 11<br>51.8 g 10<br>100.0 21<br>33.3 7 | 671.4448<br>642.206<br>537.851<br>463.3668<br>443.562<br>35.4925 | 5/2 <sup>+</sup><br>7/2 <sup>+</sup><br>(1/2 <sup>+</sup> )<br>5/2 <sup>+</sup><br>3/2 <sup>+</sup><br>3/2 <sup>+</sup> |                                   |                |                                                                                                                                                                                                                                                                                                                                             |
| 1066.31                | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> | 394.63 9<br>424.6<br>528.63 5<br>603.4<br>622.88 & 5<br>1066.29 & 5    | 100 b 7<br>80 b 7<br>≈53 b<br>80 b 7<br>53 b 7    | 671.4448<br>642.206<br>537.851<br>463.3668<br>443.562<br>0.0     | 5/2 <sup>+</sup><br>7/2 <sup>+</sup><br>(1/2 <sup>+</sup> )<br>5/2 <sup>+</sup><br>3/2 <sup>+</sup><br>1/2 <sup>+</sup> |                                   |                |                                                                                                                                                                                                                                                                                                                                             |
| 1071.868               | 5/2 <sup>-</sup>                    | 285.37 f 5<br>546.56 5<br>628.4<br>750.68 5                            | <15.2 f<br>100.0 6<br>19.59 22                    | 786.577<br>525.228<br>443.562<br>321.090                         | 7/2 <sup>-</sup><br>7/2 <sup>-</sup><br>3/2 <sup>+</sup><br>9/2 <sup>-</sup>                                            |                                   |                |                                                                                                                                                                                                                                                                                                                                             |
| 1091.40                | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> | 449.18 9<br>629.63                                                     | 100 33                                            | 642.206<br>463.3668                                              | 7/2 <sup>+</sup><br>5/2 <sup>+</sup>                                                                                    |                                   |                |                                                                                                                                                                                                                                                                                                                                             |
| 1133.330               | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> | 403.86 9                                                               | 11.9 14                                           | 729.229                                                          | 3/2 <sup>+</sup>                                                                                                        |                                   |                |                                                                                                                                                                                                                                                                                                                                             |

Adopted Levels, Gammas (continued)

| $\gamma(^{125}\text{Te})$ (continued) |                     |                         |                         |          |                |                    |
|---------------------------------------|---------------------|-------------------------|-------------------------|----------|----------------|--------------------|
| $E_i(\text{level})$                   | $J_i^\pi$           | $E_\gamma^{\ddagger}$   | $I_\gamma^a$            | $E_f$    | $J_f^\pi$      | Mult. <sup>c</sup> |
| 1133.330                              | $3/2^+, 5/2^+$      | 461.69 5                | 30.9 5                  | 671.4448 | $5/2^+$        |                    |
|                                       |                     | 490.9                   |                         | 642.206  | $7/2^+$        |                    |
|                                       |                     | 497.35 17               | 3.1 9                   | 636.0908 | $7/2^+$        |                    |
|                                       |                     | 595.78 5                | 11.6 9                  | 537.851  | $(1/2^+)$      |                    |
|                                       |                     | 688.09 <sup>h</sup> 5   |                         | 443.562  | $3/2^+$        |                    |
| 1191.73                               | $(11/2^+)$          | 1097.63 5               | 100.0 11                | 35.4925  | $3/2^+$        |                    |
|                                       |                     | 549.6 3                 | 11                      | 642.206  | $7/2^+$        |                    |
|                                       |                     | 555.6 2                 | 100                     | 636.0908 | $7/2^+$        | (Q)                |
|                                       |                     | 1047.1 3                | 20                      | 144.775  | $11/2^-$       |                    |
| 1209.61                               | $5/2^-, 7/2, 9/2$   | 684.40 6                | 19.1 8                  | 525.228  | $7/2^-$        |                    |
|                                       |                     | 888.56 5                | 100.0 13                | 321.090  | $9/2^-$        |                    |
| 1242.820                              | $1/2^+, 3/2, 5/2^+$ | 571.37 6                | 8.4 5                   | 671.4448 | $5/2^+$        |                    |
|                                       |                     | 704.94 5                | 19.0 5                  | 537.851  | $(1/2^+)$      |                    |
|                                       |                     | 779.7                   |                         | 463.3668 | $5/2^+$        |                    |
|                                       |                     | 799.27 <sup>eh</sup> 11 | 10.0 9                  | 443.562  | $3/2^+$        |                    |
|                                       |                     | 1207.29 5               | $\leq 100$              | 35.4925  | $3/2^+$        |                    |
| 1245.62?                              |                     | 1242.92 5               | 39.3 9                  | 0.0      | $1/2^+$        |                    |
|                                       |                     | 574.17 <sup>e</sup> 5   |                         | 671.4448 | $5/2^+$        |                    |
|                                       |                     | 610.2                   |                         | 636.0908 | $7/2^+$        |                    |
|                                       |                     | 782.8                   |                         | 463.3668 | $5/2^+$        |                    |
| 1265.17                               | $3/2^+, 5/2^+$      | 193.3                   |                         | 1071.868 | $5/2^-$        |                    |
|                                       |                     | 593.58 7                | 9.9 7                   | 671.4448 | $5/2^+$        |                    |
|                                       |                     | 821.58 6                | 13.1 6                  | 443.562  | $3/2^+$        |                    |
|                                       |                     | 1229.67 5               | 100.0 12                | 35.4925  | $3/2^+$        |                    |
| 1310.51                               | $15/2^{(-)}$        | 469.3 2                 | 100                     | 840.91   | $15/2^{(-)}$   |                    |
|                                       |                     | 1165.9 3                | 75                      | 144.775  | $11/2^-$       |                    |
| 1314.6                                | $7/2^+, 9/2^+$      | 641.85 <sup>fh</sup> 5  | $\leq 100$ <sup>f</sup> | 671.4448 | $5/2^+$        |                    |
|                                       |                     | 678.5                   |                         | 636.0908 | $7/2^+$        |                    |
| 1319.538                              | $3/2^-$             | 247.67 5                | 13.11 17                | 1071.868 | $5/2^-$        |                    |
|                                       |                     | 264.34 12               | 0.7 1                   | 1053.85  | $3/2^+, 5/2^+$ |                    |
|                                       |                     | 532.9 1                 | 15.0 5                  | 786.577  | $7/2^-$        |                    |
|                                       |                     | 590.39 <sup>g</sup> 5   | 9.40 <sup>g</sup> 10    | 729.229  | $3/2^+$        |                    |
|                                       |                     | 648.01 9                | 1.49 13                 | 671.4448 | $5/2^+$        |                    |
|                                       |                     | 781.84 5                | $< 36.4$                | 537.851  | $(1/2^+)$      |                    |
|                                       |                     | 794.22 5                | 100.0 3                 | 525.228  | $7/2^-$        |                    |
|                                       |                     | 875.85 8                | 2.91 20                 | 443.562  | $3/2^+$        |                    |
|                                       |                     | 1284.22 <sup>f</sup> 9  | $< 15.0$ <sup>f</sup>   | 35.4925  | $3/2^+$        |                    |
|                                       |                     | 1319.53 <sup>e</sup> 7  | $< 11.7$                | 0.0      | $1/2^+$        |                    |
|                                       |                     | 535.81 6                | 100 4                   | 786.577  | $7/2^-$        |                    |
| 1322.33                               | $5/2^-, 7/2^-$      | 797.11 5                | 29.6 4                  | 525.228  | $7/2^-$        |                    |

Adopted Levels, Gammas (continued) $\gamma(^{125}\text{Te})$  (continued)

| $E_i(\text{level})$ | $J_i^\pi$                              | $E_\gamma^{\ddagger}$  | $I_\gamma^a$         | $E_f$    | $J_f^\pi$                           | Mult. <sup>c</sup> |
|---------------------|----------------------------------------|------------------------|----------------------|----------|-------------------------------------|--------------------|
| 1322.33             | 5/2 <sup>-</sup> , 7/2 <sup>-</sup>    | 1001.30 6              | 59.6 22              | 321.090  | 9/2 <sup>-</sup>                    |                    |
| 1358.19             | 7/2 <sup>+</sup> , 9/2 <sup>+</sup>    | 686.67 8               |                      | 671.4448 | 5/2 <sup>+</sup>                    |                    |
|                     |                                        | 716.24 15              | 100 33               | 642.206  | 7/2 <sup>+</sup>                    |                    |
| 1435.91             | 5/2 <sup>+</sup>                       | 706.59                 |                      | 729.229  | 3/2 <sup>+</sup>                    |                    |
|                     |                                        | 764.34 10              | 9.0 10               | 671.4448 | 5/2 <sup>+</sup>                    |                    |
|                     |                                        | 911.04 18              | 6.1 12               | 525.228  | 7/2 <sup>-</sup>                    |                    |
|                     |                                        | 972.51 14              | 14.9 20              | 463.3668 | 5/2 <sup>+</sup>                    |                    |
|                     |                                        | 992.39 9               | 19.8 16              | 443.562  | 3/2 <sup>+</sup>                    |                    |
|                     |                                        | 1400.40 5              | 100.0 20             | 35.4925  | 3/2 <sup>+</sup>                    |                    |
| 1500.66             | 19/2 <sup>(-)</sup>                    | 189.8 2                | 0.53                 | 1310.51  | 15/2 <sup>(-)</sup>                 |                    |
|                     |                                        | 659.9 2                | 100                  | 840.91   | 15/2 <sup>(-)</sup>                 | Q                  |
| 1520.87             |                                        | 1057.50 <sup>f</sup> 9 | 100 <sup>f</sup>     | 463.3668 | 5/2 <sup>+</sup>                    |                    |
| 1529.514            | 3/2 <sup>+</sup> , 5/2 <sup>+</sup>    | 801.17 13              | <5.7                 | 729.229  | 3/2 <sup>+</sup>                    |                    |
|                     |                                        | 887.11 6               | 28.9 12              | 642.206  | 7/2 <sup>+</sup>                    |                    |
|                     |                                        | 894.78 24              | 2.6 6                | 636.0908 | 7/2 <sup>+</sup>                    |                    |
|                     |                                        | 1066.29 <sup>e</sup> 5 |                      | 463.3668 | 5/2 <sup>+</sup>                    |                    |
|                     |                                        | 1086.05 3              | 36.7 15              | 443.562  | 3/2 <sup>+</sup>                    |                    |
|                     |                                        | 1493.30 <sup>f</sup> 6 | 100 <sup>f</sup> 4   | 35.4925  | 3/2 <sup>+</sup>                    |                    |
|                     |                                        | 1529.9 5               |                      | 0.0      | 1/2 <sup>+</sup>                    |                    |
| 1570.16             | (15/2 <sup>+</sup> )                   | 378.5 2                | 100                  | 1191.73  | (11/2 <sup>+</sup> )                | (Q)                |
| 1580.85             |                                        | 1137.28 11             | 100                  | 443.562  | 3/2 <sup>+</sup>                    |                    |
| 1587.37             | 1/2 <sup>+</sup>                       | 858.46 13              | 5.5 8                | 729.229  | 3/2 <sup>+</sup>                    |                    |
|                     |                                        | 1143.91 8              | 13.0 8               | 443.562  | 3/2 <sup>+</sup>                    |                    |
|                     |                                        | 1551.76 18             | 10.6 6               | 35.4925  | 3/2 <sup>+</sup>                    |                    |
|                     |                                        | 1587.27 5              | 100.0 14             | 0.0      | 1/2 <sup>+</sup>                    |                    |
| 1652.64             | 5/2 <sup>+</sup>                       | 580.43 7               | 14.1 14              | 1071.868 | 5/2 <sup>-</sup>                    |                    |
|                     |                                        | 585.88 9               | 12.4 14              | 1066.31  | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                    |
|                     |                                        | 866.33 10              |                      | 786.577  | 7/2 <sup>-</sup>                    |                    |
|                     |                                        | 923.29 <sup>e</sup> 5  | 100 3                | 729.229  | 3/2 <sup>+</sup>                    |                    |
|                     |                                        | 981.71 9               | 29.0 24              | 671.4448 | 5/2 <sup>+</sup>                    |                    |
|                     |                                        | 1010.53 12             | <18.3                | 642.206  | 7/2 <sup>+</sup>                    |                    |
|                     |                                        | 1115.23 9              | 24.8 21              | 537.851  | (1/2 <sup>+</sup> )                 |                    |
|                     |                                        | 1127.3 5               | <23.1                | 525.228  | 7/2 <sup>-</sup>                    |                    |
|                     |                                        | 1209.59 18             | 20 3                 | 443.562  | 3/2 <sup>+</sup>                    |                    |
| 1670.25             | (3/2 <sup>+</sup> , 5/2 <sup>+</sup> ) | 940.94 6               | 73 3                 | 729.229  | 3/2 <sup>+</sup>                    |                    |
|                     |                                        | 998.49 7               | 48 3                 | 671.4448 | 5/2 <sup>+</sup>                    |                    |
|                     |                                        | 1034.0                 |                      | 636.0908 | 7/2 <sup>+</sup>                    |                    |
|                     |                                        | 1132.37 <sup>g</sup> 3 | 56.5 <sup>g</sup> 19 | 537.851  | (1/2 <sup>+</sup> )                 |                    |
|                     |                                        | 1227.10 <sup>f</sup> 6 | 100 <sup>f</sup> 4   | 443.562  | 3/2 <sup>+</sup>                    |                    |
|                     |                                        | 1634.5 3               | 20 3                 | 35.4925  | 3/2 <sup>+</sup>                    |                    |

Adopted Levels, Gammas (continued)

| $\gamma(^{125}\text{Te})$ (continued) |                                          |                           |                      |          |                                     |                    |
|---------------------------------------|------------------------------------------|---------------------------|----------------------|----------|-------------------------------------|--------------------|
| $E_i(\text{level})$                   | $J_i^\pi$                                | $E_\gamma^{\ddagger}$     | $I_\gamma^a$         | $E_f$    | $J_f^\pi$                           | Mult. <sup>c</sup> |
| 1670.25                               | (3/2 <sup>+</sup> , 5/2 <sup>+</sup> )   | 1669.9 3                  | 88 3                 | 0.0      | 1/2 <sup>+</sup>                    |                    |
| 1699.88                               | 3/2 <sup>-</sup>                         | 628.07 5                  | 100 3                | 1071.868 | 5/2 <sup>-</sup>                    |                    |
|                                       |                                          | 913.13 6                  | 38.1 16              | 786.577  | 7/2 <sup>-</sup>                    |                    |
|                                       |                                          | 1029.33 17                | 17.8 22              | 671.4448 | 5/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1255.4 3                  | 10 3                 | 443.562  | 3/2 <sup>+</sup>                    |                    |
| 1713.54                               | 1/2 <sup>+</sup>                         | 984.33 5                  | 100 3                | 729.229  | 3/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1042.12 6                 | 65.2 24              | 671.4448 | 5/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1269.94 <sup>f</sup> 6    | 79.7 <sup>f</sup> 24 | 443.562  | 3/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1678.17 14                | 51 5                 | 35.4925  | 3/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1713.43 <sup>e</sup> 8    | <41.4                | 0.0      | 1/2 <sup>+</sup>                    |                    |
| 1732.5                                | 7/2 <sup>+</sup> , 9/2 <sup>+</sup>      | 1090.3                    | 100                  | 642.206  | 7/2 <sup>+</sup>                    |                    |
| 1759.83                               | 3/2 <sup>+</sup> , 5/2 <sup>+</sup>      | 626.47 2                  |                      | 1133.330 | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                    |
|                                       |                                          | 705.8                     |                      | 1053.85  | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                    |
|                                       |                                          | 1030.92 5                 |                      | 729.229  | 3/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1087.36 <sup>e</sup>      |                      | 671.4448 | 5/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1118.0                    |                      | 642.206  | 7/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1123.28 10                |                      | 636.0908 | 7/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1296.7 <sup>e</sup> 5     |                      | 463.3668 | 5/2 <sup>+</sup>                    |                    |
| 1766.36                               | 3/2 <sup>-</sup> , 5/2, 7/2 <sup>+</sup> | 556.73 5                  | 67 3                 | 1209.61  | 5/2 <sup>-</sup> , 7/2, 9/2         |                    |
|                                       |                                          | 633.7                     |                      | 1133.330 | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                    |
|                                       |                                          | 712.2                     |                      | 1053.85  | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                    |
|                                       |                                          | 979.84 9                  | 55 5                 | 786.577  | 7/2 <sup>-</sup>                    |                    |
|                                       |                                          | 1322.79 12                | 100 11               | 443.562  | 3/2 <sup>+</sup>                    |                    |
| 1770.68                               |                                          | 637.7                     |                      | 1133.330 | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                    |
|                                       |                                          | 1307.26 <sup>e</sup> 5    |                      | 463.3668 | 5/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1327.20 <sup>e</sup> 11   | 100 7                | 443.562  | 3/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1735.39 13                | 44 4                 | 35.4925  | 3/2 <sup>+</sup>                    |                    |
| 1775.04?                              | (1/2, 3/2, 5/2 <sup>+</sup> )            | 1237.18 5                 | 100                  | 537.851  | (1/2 <sup>+</sup> )                 |                    |
| 1813.09                               | 3/2 <sup>+</sup> , 5/2 <sup>+</sup>      | 1276.1                    |                      | 537.851  | (1/2 <sup>+</sup> )                 |                    |
|                                       |                                          | 1349.71 <sup>e</sup> 7    |                      | 463.3668 | 5/2 <sup>+</sup>                    |                    |
| 1832.46                               | 7/2 <sup>+</sup> , 9/2 <sup>+</sup>      | 622.88 <sup>&amp;</sup> 5 |                      | 1209.61  | 5/2 <sup>-</sup> , 7/2, 9/2         |                    |
|                                       |                                          | 1160.78 <sup>e</sup> 10   |                      | 671.4448 | 5/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1307.26 <sup>e</sup> 5    |                      | 525.228  | 7/2 <sup>-</sup>                    |                    |
| 1851.37                               | 21/2 <sup>(-)</sup>                      | 350.7 2                   | 100                  | 1500.66  | 19/2 <sup>(-)</sup>                 | D+Q                |
| 1865.19                               | 3/2 <sup>+</sup> , 5/2 <sup>+</sup>      | 799.27 <sup>e</sup> 11    |                      | 1066.31  | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                    |
|                                       |                                          | 1327.20 <sup>e</sup> 11   |                      | 537.851  | (1/2 <sup>+</sup> )                 |                    |
|                                       |                                          | 1421.57 9                 | 41.4 23              | 443.562  | 3/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1829.68 <sup>e</sup> 5    | <51                  | 35.4925  | 3/2 <sup>+</sup>                    |                    |
|                                       |                                          | 1865.10 8                 | 100 7                | 0.0      | 1/2 <sup>+</sup>                    |                    |
| 1899.21                               | 3/2 <sup>+</sup> , 5/2, 7/2 <sup>+</sup> | 1170.42 <sup>e</sup> 10   |                      | 729.229  | 3/2 <sup>+</sup>                    |                    |



Adopted Levels, Gammas (continued) $\gamma(^{125}\text{Te})$  (continued)

| <u>E<sub>i</sub>(level)</u> | <u>J<sub>i</sub><sup><math>\pi</math></sup></u> | <u>E<sub><math>\gamma</math></sub><sup><math>\dagger</math></sup></u> | <u>I<sub><math>\gamma</math></sub><sup><i>a</i></sup></u> | <u>E<sub>f</sub></u> | <u>J<sub>f</sub><sup><math>\pi</math></sup></u> |
|-----------------------------|-------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------|----------------------|-------------------------------------------------|
| 1899.21                     | 3/2 <sup>+</sup> ,5/2,7/2 <sup>+</sup>          | 1258.3                                                                |                                                           | 642.206              | 7/2 <sup>+</sup>                                |
|                             |                                                 | 1263.9                                                                |                                                           | 636.0908             | 7/2 <sup>+</sup>                                |
|                             |                                                 | 1435.91 <sup><i>f</i></sup> 10                                        | 14 <sup><i>f</i></sup> 4                                  | 463.3668             | 5/2 <sup>+</sup>                                |
|                             |                                                 | 1455.42 7                                                             | 58 3                                                      | 443.562              | 3/2 <sup>+</sup>                                |
|                             |                                                 | 1863.64 9                                                             | 100 8                                                     | 35.4925              | 3/2 <sup>+</sup>                                |
| 1905.17                     | 3/2 <sup>+</sup> ,5/2 <sup>+</sup>              | 771.60 10                                                             | 10.8 13                                                   | 1133.330             | 3/2 <sup>+</sup> ,5/2 <sup>+</sup>              |
|                             |                                                 | 1175.46 <sup><i>e</i></sup> 6                                         | <54.9                                                     | 729.229              | 3/2 <sup>+</sup>                                |
|                             |                                                 | 1269.94 <sup><i>f</i></sup> 6                                         | <60.2 <sup><i>f</i></sup>                                 | 636.0908             | 7/2 <sup>+</sup>                                |
|                             |                                                 | 1367.17 7                                                             | 40.8 21                                                   | 537.851              | (1/2 <sup>+</sup> )                             |
|                             |                                                 | 1461.36 <sup><i>e</i></sup> 5                                         | <91.4                                                     | 443.562              | 3/2 <sup>+</sup>                                |
|                             |                                                 | 1905.38 8                                                             | 100 5                                                     | 0.0                  | 1/2 <sup>+</sup>                                |
| 1911.17                     | 3/2 <sup>-</sup> ,5/2,7/2 <sup>+</sup>          | 701.58 5                                                              | 100 7                                                     | 1209.61              | 5/2 <sup>-</sup> ,7/2,9/2                       |
|                             |                                                 | 839.19 9                                                              | 58 5                                                      | 1071.868             | 5/2 <sup>-</sup>                                |
|                             |                                                 | 1385.82 9                                                             | 77 14                                                     | 525.228              | 7/2 <sup>-</sup>                                |
|                             |                                                 | 1448.16 14                                                            | <72.1                                                     | 463.3668             | 5/2 <sup>+</sup>                                |
| 1918.59                     | 3/2 <sup>+</sup> ,5/2 <sup>+</sup>              | 1189.28 7                                                             | 52 4                                                      | 729.229              | 3/2 <sup>+</sup>                                |
|                             |                                                 | 1247.7 3                                                              | 8 3                                                       | 671.4448             | 5/2 <sup>+</sup>                                |
|                             |                                                 | 1381.1 11                                                             |                                                           | 537.851              | (1/2 <sup>+</sup> )                             |
|                             |                                                 | 1475.03 6                                                             | 100 4                                                     | 443.562              | 3/2 <sup>+</sup>                                |
|                             |                                                 | 1882.45 10                                                            | 55 5                                                      | 35.4925              | 3/2 <sup>+</sup>                                |
|                             |                                                 | 1919.55 12                                                            | 92 6                                                      | 0.0                  | 1/2 <sup>+</sup>                                |
| 1932.79                     | 5/2 <sup>-</sup> ,7/2 <sup>-</sup>              | 799.27 <sup><i>e</i></sup> 11                                         |                                                           | 1133.330             | 3/2 <sup>+</sup> ,5/2 <sup>+</sup>              |
|                             |                                                 | 915.95 15                                                             |                                                           | 1017.73              | 7/2 <sup>(+)</sup>                              |
|                             |                                                 | 1261.00 <sup><i>e</i></sup> 12                                        |                                                           | 671.4448             | 5/2 <sup>+</sup>                                |
|                             |                                                 | 1296.7 <sup><i>e</i></sup> 5                                          |                                                           | 636.0908             | 7/2 <sup>+</sup>                                |
| 1956.701                    | 3/2 <sup>-</sup>                                | 636.7                                                                 |                                                           | 1319.538             | 3/2 <sup>-</sup>                                |
|                             |                                                 | 884.94 6                                                              | 4.78 22                                                   | 1071.868             | 5/2 <sup>-</sup>                                |
|                             |                                                 | 903.18 10                                                             | 1.88 22                                                   | 1053.85              | 3/2 <sup>+</sup> ,5/2 <sup>+</sup>              |
|                             |                                                 | 1170.42 <sup><i>e</i></sup> 10                                        | 4.1 3                                                     | 786.577              | 7/2 <sup>-</sup>                                |
|                             |                                                 | 1227.10 <sup><i>f</i></sup> 6                                         | <9.4 <sup><i>f</i></sup>                                  | 729.229              | 3/2 <sup>+</sup>                                |
|                             |                                                 | 1284.22 <sup><i>f</i></sup> 9                                         | <16.3 <sup><i>f</i></sup>                                 | 671.4448             | 5/2 <sup>+</sup>                                |
|                             |                                                 | 1418.89 5                                                             | 21.7 4                                                    | 537.851              | (1/2 <sup>+</sup> )                             |
|                             |                                                 | 1493.30 <sup><i>f</i></sup> 6                                         | 28.3 <sup><i>f</i></sup> 11                               | 463.3668             | 5/2 <sup>+</sup>                                |
|                             |                                                 | 1513.33 6                                                             | 17.2 5                                                    | 443.562              | 3/2 <sup>+</sup>                                |
|                             |                                                 | 1921.59 <sup><i>e</i></sup> 9                                         | <15.7                                                     | 35.4925              | 3/2 <sup>+</sup>                                |
|                             |                                                 | 1956.73 5                                                             | 100.0 4                                                   | 0.0                  | 1/2 <sup>+</sup>                                |
| 1969.41                     | 7/2 <sup>+</sup> ,9/2 <sup>+</sup>              | 1327.2 <sup><i>e</i></sup> 1                                          | 100                                                       | 642.206              | 7/2 <sup>+</sup>                                |
| 1978.77                     | 1/2 <sup>-</sup> ,3/2                           | 907.31 10                                                             | 10.8 10                                                   | 1071.868             | 5/2 <sup>-</sup>                                |
|                             |                                                 | 1440.94 5                                                             | <98.0                                                     | 537.851              | (1/2 <sup>+</sup> )                             |

Adopted Levels, Gammas (continued)

| $\gamma(^{125}\text{Te})$ (continued) |                     |                         |                    |          |                     |
|---------------------------------------|---------------------|-------------------------|--------------------|----------|---------------------|
| $E_i(\text{level})$                   | $J_i^\pi$           | $E_\gamma^{\ddagger}$   | $I_\gamma^a$       | $E_f$    | $J_f^\pi$           |
| 1978.77                               | $1/2^-, 3/2$        | 1535.02 <sup>f</sup> 11 | <23.0 <sup>f</sup> | 443.562  | $3/2^+$             |
|                                       |                     | 1942.8 1                | 20 2               | 35.4925  | $3/2^+$             |
|                                       |                     | 1978.76 5               | 100.0 20           | 0.0      | $1/2^+$             |
| 1982.27                               | $5/2^-$             | 1538.70 19              | 100                | 443.562  | $3/2^+$             |
| 1990.66                               | $1/2^+$             | 1262.15 18              | 100 25             | 729.229  | $3/2^+$             |
|                                       |                     | 1547.03 5               |                    | 443.562  | $3/2^+$             |
| 1995.18                               | $9/2^-$             | 785.51 9                |                    | 1209.61  | $5/2^-, 7/2, 9/2$   |
|                                       |                     | 923.29 <sup>e</sup> 5   |                    | 1071.868 | $5/2^-$             |
|                                       |                     | 1470.6 <sup>e</sup> 2   |                    | 525.228  | $7/2^-$             |
| 2009.39                               | $3/2^-$             | 687.19                  |                    | 1322.33  | $5/2^-, 7/2^-$      |
|                                       |                     | 766.71 8                | 4.3 3              | 1242.820 | $1/2^+, 3/2, 5/2^+$ |
|                                       |                     | 937.47 5                | 19.8 5             | 1071.868 | $5/2^-$             |
|                                       |                     | 1338.06 <sup>e</sup> 6  | <13.4              | 671.4448 | $5/2^+$             |
|                                       |                     | 1470.64 <sup>e</sup> 20 | 2.0 7              | 537.851  | ( $1/2^+$ )         |
|                                       |                     | 1545.76 13              | 6.1 7              | 463.3668 | $5/2^+$             |
|                                       |                     | 1565.91 11              | 6.4 5              | 443.562  | $3/2^+$             |
|                                       |                     | 1973.92 9               | 12.5 7             | 35.4925  | $3/2^+$             |
|                                       |                     | 2009.28 10              | 100.0 13           | 0.0      | $1/2^+$             |
|                                       |                     | 1349.71 <sup>e</sup> 7  |                    | 671.4448 | $5/2^+$             |
| 2021.36                               | $3/2^+, 5/2, 7/2^+$ | 1384.8                  |                    | 636.0908 | $7/2^+$             |
|                                       |                     | 1578.04 <sup>e</sup> 8  |                    | 443.562  | $3/2^+$             |
|                                       |                     | 975.41 3                | 100                | 1071.868 | $5/2^-$             |
| 2047.28?                              | $1/2^-, 3/2^-$      | 995.44 11               | 20 3               | 1053.85  | $3/2^+, 5/2^+$      |
| 2048.96                               | $3/2^+, 5/2, 7/2^+$ | 1319.53 <sup>e</sup> 7  |                    | 729.229  | $3/2^+$             |
|                                       |                     | 1378.7 5                | 52 4               | 671.4448 | $5/2^+$             |
|                                       |                     | 1412.6 <sup>f</sup> 5   | <41.3 <sup>f</sup> | 636.0908 | $7/2^+$             |
|                                       |                     | 1585.5 5                |                    | 463.3668 | $5/2^+$             |
|                                       |                     | 1606.0 3                | 100 4              | 443.562  | $3/2^+$             |
|                                       |                     | 851.87 18               | 8.0 12             | 1209.61  | $5/2^-, 7/2, 9/2$   |
|                                       |                     | 1331.39                 |                    | 729.229  | $3/2^+$             |
|                                       |                     | 1388.19 21              | <9.1               | 671.4448 | $5/2^+$             |
| 2060.89                               | $3/2^+, 5/2^+$      | 1424.86 20              | 13 3               | 636.0908 | $7/2^+$             |
|                                       |                     | 1522.38 <sup>f</sup> 11 | <15.5 <sup>f</sup> | 537.851  | ( $1/2^+$ )         |
|                                       |                     | 1597.13                 |                    | 463.3668 | $5/2^+$             |
|                                       |                     | 1617.51 5               | 100.0 20           | 443.562  | $3/2^+$             |
|                                       |                     | 2025.52 19              | 15.1 18            | 35.4925  | $3/2^+$             |
|                                       |                     | 2060.67 <sup>f</sup> 11 | <22.0 <sup>f</sup> | 0.0      | $1/2^+$             |
|                                       |                     | 1397.49 9               | 100 8              | 671.4448 | $5/2^+$             |
|                                       |                     | 1623.56 5               | 44                 | 443.562  | $3/2^+$             |
|                                       |                     | 1005.2 1                | 14.3 14            | 1071.868 | $5/2^-$             |
|                                       |                     |                         |                    |          |                     |
| 2067.56?                              |                     |                         |                    |          |                     |
| 2077.05                               | $1/2^-, 3/2, 5/2^+$ |                         |                    |          |                     |
|                                       |                     |                         |                    |          |                     |

Adopted Levels, Gammas (continued)

| $\gamma(^{125}\text{Te})$ (continued) |                                             |                                             |                                      |          |                                     |
|---------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------|----------|-------------------------------------|
| $E_i(\text{level})$                   | $J_i^\pi$                                   | $E_\gamma$ <sup><math>\ddagger</math></sup> | $I_\gamma$ <sup><math>a</math></sup> | $E_f$    | $J_f^\pi$                           |
| 2077.05                               | 1/2 <sup>-</sup> , 3/2, 5/2 <sup>+</sup>    | 2041.46 <sup><math>f</math></sup> 16        | 32.2 <sup><math>f</math></sup> 25    | 35.4925  | 3/2 <sup>+</sup>                    |
|                                       |                                             | 2077.04 <sup><math>e</math></sup> 10        | 100.0 20                             | 0.0      | 1/2 <sup>+</sup>                    |
| 2087.02                               | (1/2, 3/2, 5/2 <sup>+</sup> )               | 1549.16 <sup><math>e</math></sup> 8         | 100                                  | 537.851  | (1/2 <sup>+</sup> )                 |
| 2108.55                               | 1/2 <sup>-</sup> , 3/2                      | 786.4                                       |                                      | 1322.33  | 5/2 <sup>-</sup> , 7/2 <sup>-</sup> |
|                                       |                                             | 1036.73 5                                   | 100 3                                | 1071.868 | 5/2 <sup>-</sup>                    |
|                                       |                                             | 1664.74 11                                  | 29.5 23                              | 443.562  | 3/2 <sup>+</sup>                    |
|                                       |                                             | 2073.07 11                                  | 68 3                                 | 35.4925  | 3/2 <sup>+</sup>                    |
|                                       |                                             | 2108.41 13                                  | 64 4                                 | 0.0      | 1/2 <sup>+</sup>                    |
| 2129.65                               | 1/2 <sup>-</sup> , 3/2                      | 1057.50 <sup><math>f</math></sup> 9         | 15.9 <sup><math>f</math></sup> 13    | 1071.868 | 5/2 <sup>-</sup>                    |
|                                       |                                             | 1591.84 8                                   | 21.1 14                              | 537.851  | (1/2 <sup>+</sup> )                 |
|                                       |                                             | 1686.18 <sup><math>e</math></sup> 6         | <64.0                                | 443.562  | 3/2 <sup>+</sup>                    |
|                                       |                                             | 2094.1 5                                    | 100.0 18                             | 35.4925  | 3/2 <sup>+</sup>                    |
| 2132.75                               | 3/2 <sup>+</sup> , 5/2, 7/2 <sup>+</sup>    | 1461.36 <sup><math>e</math></sup> 5         |                                      | 671.4448 | 5/2 <sup>+</sup>                    |
|                                       |                                             | 1495.8                                      |                                      | 636.0908 | 7/2 <sup>+</sup>                    |
|                                       |                                             | 1668.6                                      | 100 3                                | 463.3668 | 5/2 <sup>+</sup>                    |
|                                       |                                             | 1688.45 18                                  |                                      | 443.562  | 3/2 <sup>+</sup>                    |
| 2145.67                               |                                             | 1473.7                                      |                                      | 671.4448 | 5/2 <sup>+</sup>                    |
|                                       |                                             | 1682.31 17                                  | 100 10                               | 463.3668 | 5/2 <sup>+</sup>                    |
| 2149.61                               | (1/2 <sup>-</sup> , 3/2, 5/2 <sup>+</sup> ) | 1078.24 9                                   | 95 11                                | 1071.868 | 5/2 <sup>-</sup>                    |
|                                       |                                             | 1611.56 24                                  | 100 20                               | 537.851  | (1/2 <sup>+</sup> )                 |
|                                       |                                             | 1686.18 <sup><math>e</math></sup> 3         |                                      | 463.3668 | 5/2 <sup>+</sup>                    |
| 2174.8                                |                                             | 673.9 3                                     | 100                                  | 1500.66  | 19/2 <sup>(-)</sup>                 |
|                                       |                                             | 864.6 3                                     | 86                                   | 1310.51  | 15/2 <sup>(-)</sup>                 |
| 2176.06                               | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup>    | 1503.49 <sup><math>f</math></sup> 11        | <100 <sup><math>f</math></sup>       | 671.4448 | 5/2 <sup>+</sup>                    |
|                                       |                                             | 1732.87 <sup><math>e</math></sup> 7         |                                      | 443.562  | 3/2 <sup>+</sup>                    |
|                                       |                                             | 2176.37 16                                  | 100 13                               | 0.0      | 1/2 <sup>+</sup>                    |
| 2181.96                               | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup>    | 1452.91 11                                  |                                      | 729.229  | 3/2 <sup>+</sup>                    |
|                                       |                                             | 1510.4 3                                    |                                      | 671.4448 | 5/2 <sup>+</sup>                    |
|                                       |                                             | 1643.80 9                                   | 81 5                                 | 537.851  | (1/2 <sup>+</sup> )                 |
|                                       |                                             | 1738.41 7                                   | 100 4                                | 443.562  | 3/2 <sup>+</sup>                    |
|                                       |                                             | 2146.69 23                                  | 21 4                                 | 35.4925  | 3/2 <sup>+</sup>                    |
|                                       |                                             | 2182.41 20                                  | 40 5                                 | 0.0      | 1/2 <sup>+</sup>                    |
| 2204.19                               |                                             | 881.74 10                                   | 43 4                                 | 1322.33  | 5/2 <sup>-</sup> , 7/2 <sup>-</sup> |
|                                       |                                             | 1132.37 <sup><math>g</math></sup> 6         | <100 <sup><math>g</math></sup>       | 1071.868 | 5/2 <sup>-</sup>                    |
|                                       |                                             | 1760.59 9                                   | 100 8                                | 443.562  | 3/2 <sup>+</sup>                    |
| 2220.25                               | 3/2 <sup>+</sup> , 5/2, 7/2 <sup>+</sup>    | 1549.16 <sup><math>e</math></sup> 8         |                                      | 671.4448 | 5/2 <sup>+</sup>                    |
|                                       |                                             | 1578.04 <sup><math>e</math></sup> 8         |                                      | 642.206  | 7/2 <sup>+</sup>                    |
|                                       |                                             | 1582.99 <sup><math>e</math></sup> 14        |                                      | 636.0908 | 7/2 <sup>+</sup>                    |
|                                       |                                             | 2184.7 3                                    |                                      | 35.4925  | 3/2 <sup>+</sup>                    |
| 2226.53                               | 3/2 <sup>+</sup>                            | 1160.78 <sup><math>e</math></sup> 10        | <18                                  | 1066.31  | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |

Adopted Levels, Gammas (continued) $\gamma(^{125}\text{Te})$  (continued)

| $E_i(\text{level})$ | $J_i^\pi$                                | $E_\gamma$ $\ddagger$              | $I_\gamma$ $\textcolor{blue}{a}$ | $E_f$    | $J_f^\pi$                                |
|---------------------|------------------------------------------|------------------------------------|----------------------------------|----------|------------------------------------------|
| 2226.53             | 3/2 <sup>+</sup>                         | 1497.72 $11$                       | 31 3                             | 729.229  | 3/2 <sup>+</sup>                         |
|                     |                                          | 1554.84 6                          | 100 3                            | 671.4448 | 5/2 <sup>+</sup>                         |
|                     |                                          | 1590.0                             |                                  | 636.0908 | 7/2 <sup>+</sup>                         |
|                     |                                          | 1763.35 9                          | 26.1 $19$                        | 463.3668 | 5/2 <sup>+</sup>                         |
|                     |                                          | 1782.81 8                          | 38 3                             | 443.562  | 3/2 <sup>+</sup>                         |
|                     |                                          | 2190.71 $\textcolor{blue}{e}$ $11$ | 58.6 25                          | 35.4925  | 3/2 <sup>+</sup>                         |
| 2231.92             |                                          | 1503.49 $\textcolor{blue}{f}$ $11$ | <40 $\textcolor{blue}{f}$        | 729.229  | 3/2 <sup>+</sup>                         |
|                     |                                          | 1788.02 7                          | 100 5                            | 443.562  | 3/2 <sup>+</sup>                         |
| 2247.31             | 1/2 <sup>-</sup> , 3/2, 5/2 <sup>+</sup> | 1175.46 $\textcolor{blue}{e}$ 6    |                                  | 1071.868 | 5/2 <sup>-</sup>                         |
|                     |                                          | 1802.1                             |                                  | 443.562  | 3/2 <sup>+</sup>                         |
|                     |                                          | 2247.15 $16$                       |                                  | 0.0      | 1/2 <sup>+</sup>                         |
| 2251.16             | (1/2, 3/2, 5/2 <sup>+</sup> )            | 1233.13 $15$                       | <41.7                            | 1017.73  | 7/2 <sup>(+)</sup>                       |
|                     |                                          | 1522.38 $\textcolor{blue}{f}$ $11$ | <66.7 $\textcolor{blue}{f}$      | 729.229  | 3/2 <sup>+</sup>                         |
|                     |                                          | 1579.7 8                           | 83 $12$                          | 671.4448 | 5/2 <sup>+</sup>                         |
|                     |                                          | 1713.43 $\textcolor{blue}{e}$ 8    |                                  | 537.851  | (1/2 <sup>+</sup> )                      |
|                     |                                          | 1807.22 9                          | 100 8                            | 443.562  | 3/2 <sup>+</sup>                         |
| 2270.89             | 3/2 <sup>-</sup>                         | 1541.4 3                           | 19 4                             | 729.229  | 3/2 <sup>+</sup>                         |
|                     |                                          | 1599.60 7                          | 63 3                             | 671.4448 | 5/2 <sup>+</sup>                         |
|                     |                                          | 1732.87 $\textcolor{blue}{e}$ 7    | <80                              | 537.851  | (1/2 <sup>+</sup> )                      |
|                     |                                          | 2235.56 $12$                       | 100 4                            | 35.4925  | 3/2 <sup>+</sup>                         |
|                     |                                          | 2270.49 $17$                       | 50 4                             | 0.0      | 1/2 <sup>+</sup>                         |
| 2292.62             |                                          | 1049.35 $15$                       | 50 9                             | 1242.820 | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup> |
|                     |                                          | 1274.60 $18$                       | 22 7                             | 1017.73  | 7/2 <sup>(+)</sup>                       |
|                     |                                          | 1656.87 $11$                       | 100 $10$                         | 636.0908 | 7/2 <sup>+</sup>                         |
| 2311.47             | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup> | 1045.52 $15$                       | 49 $12$                          | 1265.17  | 3/2 <sup>+</sup> , 5/2 <sup>+</sup>      |
|                     |                                          | 1582.99 $\textcolor{blue}{e}$ $14$ | <170                             | 729.229  | 3/2 <sup>+</sup>                         |
|                     |                                          | 1847.3                             |                                  | 463.3668 | 5/2 <sup>+</sup>                         |
|                     |                                          | 2275.7 3                           | 95 $12$                          | 35.4925  | 3/2 <sup>+</sup>                         |
|                     |                                          | 2310.6 $15$                        | 100 $12$                         | 0.0      | 1/2 <sup>+</sup>                         |
| 2313.72             | 1/2, 3/2, 5/2 <sup>+</sup>               | 1584.60 $\textcolor{blue}{f}$ $13$ | 47 $\textcolor{blue}{f}$ 4       | 729.229  | 3/2 <sup>+</sup>                         |
|                     |                                          | 1870.03 $15$                       | 67 4                             | 443.562  | 3/2 <sup>+</sup>                         |
|                     |                                          | 2278.17 $20$                       | 20 3                             | 35.4925  | 3/2 <sup>+</sup>                         |
|                     |                                          | 2313.68 $11$                       | 100 3                            | 0.0      | 1/2 <sup>+</sup>                         |
| 2315.75             | (3/2, 5/2 <sup>+</sup> )                 | 1182.7 5                           | 75 5                             | 1133.330 | 3/2 <sup>+</sup> , 5/2 <sup>+</sup>      |
|                     |                                          | 1244.1 5                           |                                  | 1071.868 | 5/2 <sup>-</sup>                         |
|                     |                                          | 1261.0 $\textcolor{blue}{e}$ 6     | <150                             | 1053.85  | 3/2 <sup>+</sup> , 5/2 <sup>+</sup>      |
|                     |                                          | 1777.95 $10$                       |                                  | 537.851  | (1/2 <sup>+</sup> )                      |
|                     |                                          | 1852.2                             |                                  | 463.3668 | 5/2 <sup>+</sup>                         |
|                     |                                          | 1872.00 $17$                       | 100 9                            | 443.562  | 3/2 <sup>+</sup>                         |
| 2351.25             |                                          | 1140.4                             |                                  | 1209.61  | 5/2 <sup>-</sup> , 7/2, 9/2              |

Adopted Levels, Gammas (continued)

| $\gamma(^{125}\text{Te})$ (continued) |                       |                                    |                    |          |                |                    |
|---------------------------------------|-----------------------|------------------------------------|--------------------|----------|----------------|--------------------|
| $E_i(\text{level})$                   | $J_i^\pi$             | $E_\gamma^{\ddagger}$              | $I_\gamma^a$       | $E_f$    | $J_f^\pi$      | Mult. <sup>c</sup> |
| 2351.25                               |                       | 1298.4                             |                    | 1053.85  | $3/2^+, 5/2^+$ |                    |
|                                       |                       | 1621.59 <sup>9</sup>               | <104               | 729.229  | $3/2^+$        |                    |
|                                       |                       | 1680.09 <sup>15</sup>              | 100 <sup>5</sup>   | 671.4448 | $5/2^+$        |                    |
|                                       |                       | 1888.41 <sup>e</sup> <sup>12</sup> |                    | 463.3668 | $5/2^+$        |                    |
|                                       |                       | 1908.3 <sup>7</sup>                | 86.5 <sup>6</sup>  | 443.562  | $3/2^+$        |                    |
|                                       |                       | 2316.2 <sup>15</sup>               | 58 <sup>11</sup>   | 35.4925  | $3/2^+$        |                    |
| 2372.94                               | $(1/2^+, 3/2, 5/2^+)$ | 1834.81 <sup>8</sup>               |                    | 537.851  | $(1/2^+)$      |                    |
|                                       |                       | 1910.50 <sup>15</sup>              |                    | 463.3668 | $5/2^+$        |                    |
|                                       |                       | 1929.1                             |                    | 443.562  | $3/2^+$        |                    |
| 2375.11                               | $(19/2^+)$            | 523.7 <sup>2</sup>                 | 100                | 1851.37  | $21/2^{(-)}$   | D+Q                |
|                                       |                       | 805.1 <sup>3</sup>                 | 22                 | 1570.16  | $(15/2^+)$     |                    |
|                                       |                       | 874.3 <sup>3</sup>                 | 26                 | 1500.66  | $19/2^{(-)}$   |                    |
| 2379.72                               | $1/2^+, 3/2, 5/2^+$   | 1650.30 <sup>8</sup>               | 100 <sup>6</sup>   | 729.229  | $3/2^+$        |                    |
|                                       |                       | 1708.90 <sup>10</sup>              | <69.8              | 671.4448 | $5/2^+$        |                    |
|                                       |                       | 1841.51 <sup>9</sup>               | 60 <sup>6</sup>    | 537.851  | $(1/2^+)$      |                    |
|                                       |                       | 1916.0                             |                    | 463.3668 | $5/2^+$        |                    |
|                                       |                       | 1935.7 <sup>2</sup>                | 40 <sup>7</sup>    | 443.562  | $3/2^+$        |                    |
|                                       |                       | 2380.00 <sup>e</sup> <sup>13</sup> |                    | 0.0      | $1/2^+$        |                    |
| 2384.82                               |                       | 1713.43 <sup>e</sup> <sup>8</sup>  |                    | 671.4448 | $5/2^+$        |                    |
|                                       |                       | 1921.59 <sup>e</sup> <sup>9</sup>  |                    | 463.3668 | $5/2^+$        |                    |
|                                       |                       | 2348.17 <sup>20</sup>              | 100 <sup>17</sup>  | 35.4925  | $3/2^+$        |                    |
|                                       |                       | 1087.36 <sup>e</sup>               |                    | 1322.33  | $5/2^-, 7/2^-$ |                    |
| 2409.94                               |                       | 1338.06 <sup>e</sup> <sup>6</sup>  |                    | 1071.868 | $5/2^-$        |                    |
|                                       |                       | 1947.3                             |                    | 463.3668 | $5/2^+$        |                    |
|                                       |                       | 1096.06 <sup>10</sup>              | 33 <sup>6</sup>    | 1319.538 | $3/2^-$        |                    |
| 2415.52                               | $1/2^+, 3/2, 5/2^+$   | 1686.49                            |                    | 729.229  | $3/2^+$        |                    |
|                                       |                       | 1744.05 <sup>8</sup>               | 100 <sup>6</sup>   | 671.4448 | $5/2^+$        |                    |
|                                       |                       | 2380.00 <sup>e</sup> <sup>13</sup> |                    | 35.4925  | $3/2^+$        |                    |
|                                       |                       | 2415.34 <sup>16</sup>              | 44 <sup>5</sup>    | 0.0      | $1/2^+$        |                    |
|                                       |                       | 1709.99 <sup>10</sup>              | <36.7              | 729.229  | $3/2^+$        |                    |
|                                       |                       | 1768.03 <sup>18</sup>              | 10.3 <sup>22</sup> | 671.4448 | $5/2^+$        |                    |
| 2438.99                               | $(3/2^-, 5/2^+)$      | 1899.5 <sup>3</sup>                | 23 <sup>5</sup>    | 537.851  | $(1/2^+)$      |                    |
|                                       |                       | 2402.90 <sup>16</sup>              | 100 <sup>6</sup>   | 35.4925  | $3/2^+$        |                    |
|                                       |                       | 1412.60 <sup>f</sup> <sup>10</sup> | <59 <sup>f</sup>   | 1053.85  | $3/2^+, 5/2^+$ |                    |
|                                       |                       | 1795.12 <sup>9</sup>               | 100 <sup>5</sup>   | 671.4448 | $5/2^+$        |                    |
| 2466.58                               | $1/2^+, 3/2, 5/2^+$   | 1928.9 <sup>1</sup>                | 63 <sup>2</sup>    | 537.851  | $(1/2^+)$      |                    |
|                                       |                       | 2002.63 <sup>15</sup>              | 60 <sup>8</sup>    | 463.3668 | $5/2^+$        |                    |
|                                       |                       | 2022.92 <sup>13</sup>              | 69 <sup>5</sup>    | 443.562  | $3/2^+$        |                    |
|                                       |                       | 2430.4 <sup>5</sup>                | 68 <sup>25</sup>   | 35.4925  | $3/2^+$        |                    |
|                                       |                       | 2467.03 <sup>13</sup>              | 67 <sup>6</sup>    | 0.0      | $1/2^+$        |                    |
|                                       |                       | 1422.8                             |                    | 1071.868 | $5/2^-$        |                    |
| 2495.73                               | $3/2, 5/2, 7/2^+$     |                                    |                    |          |                |                    |

Adopted Levels, Gammas (continued)

| $\gamma(^{125}\text{Te})$ (continued) |                     |                          |                     |           |                |                    |
|---------------------------------------|---------------------|--------------------------|---------------------|-----------|----------------|--------------------|
| $E_i(\text{level})$                   | $J_i^\pi$           | $E_\gamma^{\ddagger}$    | $I_\gamma^a$        | $E_f$     | $J_f^\pi$      | Mult. <sup>c</sup> |
| 2495.73                               | $3/2, 5/2, 7/2^+$   | 2032.13 10               | 43 4                | 463.3668  | $5/2^+$        |                    |
|                                       |                     | 2049.6 5                 | 19 5                | 443.562   | $3/2^+$        |                    |
|                                       |                     | 2460.77 13               | 100 5               | 35.4925   | $3/2^+$        |                    |
| 2504.77                               |                     | 2041.46 <sup>f</sup> 16  | <100 <sup>f</sup>   | 463.3668  | $5/2^+$        |                    |
|                                       |                     | 2060.67 <sup>f</sup> 21  | 100 <sup>f</sup> 18 | 443.562   | $3/2^+$        |                    |
|                                       |                     | 2469.6 2                 |                     | 35.4925   | $3/2^+$        |                    |
| 2522.45                               | $3/2^-$             | 1851.54 9                |                     | 671.4448  | $5/2^+$        |                    |
|                                       |                     | 2077.04 <sup>eh</sup> 10 |                     | 443.562   | $3/2^+$        |                    |
|                                       |                     | 2485.8 5                 |                     | 35.4925   | $3/2^+$        |                    |
|                                       |                     | 2521.8 1                 |                     | 0.0       | $1/2^+$        |                    |
| 2528.75                               |                     | 1799.3 1                 | 100 8               | 729.229   | $3/2^+$        |                    |
|                                       |                     | 1857.71 14               | 90 10               | 671.4448  | $5/2^+$        |                    |
| 2550.48                               | $3/2$               | 1477.8 2                 | 39 7                | 1071.868  | $5/2^-$        |                    |
|                                       |                     | 2014.16 22               | 75 17               | 537.851   | $(1/2^+)$      |                    |
|                                       |                     | 2086.99 13               | 92 6                | 463.3668  | $5/2^+$        |                    |
|                                       |                     | 2106.25 19               | 100 8               | 443.562   | $3/2^+$        |                    |
|                                       |                     | 2514.62 13               | 90 7                | 35.4925   | $3/2^+$        |                    |
|                                       |                     | 2550.78 <sup>e</sup> 10  |                     | 0.0       | $1/2^+$        |                    |
|                                       |                     | 703.4 3                  | 100                 | 1851.37+x |                | D(+Q)              |
| 2560.99?                              | $1/2, 3/2, 5/2^+$   | 1832.17 20               | 70 9                | 729.229   | $3/2^+$        |                    |
|                                       |                     | 2560.66 17               | 100 10              | 0.0       | $1/2^+$        |                    |
| 2568.27                               | $1/2^+, 3/2, 5/2^+$ | 1435.91 <sup>f</sup> 10  | <20.8 <sup>f</sup>  | 1133.330  | $3/2^+, 5/2^+$ |                    |
|                                       |                     | 1838.42 12               | 33 4                | 729.229   | $3/2^+$        |                    |
|                                       |                     | 2103.37 <sup>e</sup> 16  | <50.0               | 463.3668  | $5/2^+$        |                    |
|                                       |                     | 2124.66 <sup>f</sup> 15  | <54.2 <sup>f</sup>  | 443.562   | $3/2^+$        |                    |
|                                       |                     | 2532.81 11               | 100 4               | 35.4925   | $3/2^+$        |                    |
|                                       |                     | 2568.21 13               | <82.4               | 0.0       | $1/2^+$        |                    |
| 2570.2                                | $(23/2^+)$          | 195.0 3                  | 5.5                 | 2375.11   | $(19/2^+)$     |                    |
|                                       |                     | 718.9 3                  | 100                 | 1851.37   | $21/2^{(-)}$   | D                  |
| 2585.67                               | $1/2, 3/2$          | 2047.27 11               | 100.0 24            | 537.851   | $(1/2^+)$      |                    |
|                                       |                     | 2122.4                   | 20.8                | 463.3668  | $5/2^+$        |                    |
|                                       |                     | 2141.76 13               | 56 5                | 443.562   | $3/2^+$        |                    |
|                                       |                     | 2550.78 <sup>e</sup> 10  |                     | 35.4925   | $3/2^+$        |                    |
| 2591.95                               |                     | 1950.2 1                 |                     | 642.206   | $7/2^+$        |                    |
|                                       |                     | 2128.1 1                 |                     | 463.3668  | $5/2^+$        |                    |
| 2607.00                               | $1/2^-, 3/2, 5/2^+$ | 1288.3                   |                     | 1319.538  | $3/2^-$        |                    |
|                                       |                     | 1535.02 <sup>f</sup> 6   | 59 <sup>f</sup> 6   | 1071.868  | $5/2^-$        |                    |
|                                       |                     | 1878.5 <sup>e</sup> 3    | 58 16               | 729.229   | $3/2^+$        |                    |
|                                       |                     | 2571.92 16               | 57 5                | 35.4925   | $3/2^+$        |                    |
|                                       |                     | 2607.01 12               | 100 5               | 0.0       | $1/2^+$        |                    |

Adopted Levels, Gammas (continued)

| $\gamma(^{125}\text{Te})$ (continued) |                                          |                         |                    |           |                                     |                    |
|---------------------------------------|------------------------------------------|-------------------------|--------------------|-----------|-------------------------------------|--------------------|
| $E_i(\text{level})$                   | $J_i^\pi$                                | $E_\gamma^{\ddagger}$   | $I_\gamma^a$       | $E_f$     | $J_f^\pi$                           | Mult. <sup>c</sup> |
| 2611.6+x                              |                                          | 760.2 3                 | 100                | 1851.37+x |                                     | (Q)                |
| 2649.99                               | 3/2 <sup>-</sup>                         | 1330.4                  |                    | 1319.538  | 3/2 <sup>-</sup>                    |                    |
|                                       |                                          | 1515.71 15              | 22 3               | 1133.330  | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                    |
|                                       |                                          | 1578.04 <sup>e</sup> 4  | 81 4               | 1071.868  | 5/2 <sup>-</sup>                    |                    |
|                                       |                                          | 1584.60 <sup>f</sup> 13 | <44.4 <sup>f</sup> | 1066.31   | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                    |
|                                       |                                          | 1921.59 <sup>e</sup> 9  | <121               | 729.229   | 3/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2124.66 <sup>f</sup> 15 | <36.3 <sup>f</sup> | 525.228   | 7/2 <sup>-</sup>                    |                    |
|                                       |                                          | 2186.69 11              | 100 6              | 463.3668  | 5/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2204.84 16              | 28 4               | 443.562   | 3/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2614.26 12              | 47 8               | 35.4925   | 3/2 <sup>+</sup>                    |                    |
| 2689.71                               |                                          | 2018.25 17              | 100                | 671.4448  | 5/2 <sup>+</sup>                    |                    |
| 2706.11                               |                                          | 2670.59 12              | 100                | 35.4925   | 3/2 <sup>+</sup>                    |                    |
| 2729.28                               | 1/2, 3/2, 5/2 <sup>+</sup>               | 1595.7                  |                    | 1133.330  | 3/2 <sup>+</sup> , 5/2 <sup>+</sup> |                    |
|                                       |                                          | 2190.71 <sup>e</sup> 11 |                    | 537.851   | (1/2 <sup>+</sup> )                 |                    |
|                                       |                                          | 2730.55 <sup>e</sup> 15 |                    | 0.0       | 1/2 <sup>+</sup>                    |                    |
| 2751.79                               | 1/2 <sup>-</sup> , 3/2 <sup>-</sup>      | 2716.33 12              | 100 8              | 35.4925   | 3/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2751.1 <sup>e</sup> 4   | <44                | 0.0       | 1/2 <sup>+</sup>                    |                    |
| 2753.8?                               | (1/2, 3/2, 5/2 <sup>+</sup> )            | 2215.9 3                | 100                | 537.851   | (1/2 <sup>+</sup> )                 |                    |
| 2770.76                               | 3/2 <sup>-</sup>                         | 1698.54 11              | 100 13             | 1071.868  | 5/2 <sup>-</sup>                    |                    |
|                                       |                                          | 2233.01 21              | 27 4               | 537.851   | (1/2 <sup>+</sup> )                 |                    |
|                                       |                                          | 2308.51 20              | 33 4               | 463.3668  | 5/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2735.48 17              | 50 5               | 35.4925   | 3/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2770.45 15              | 33.3 23            | 0.0       | 1/2 <sup>+</sup>                    |                    |
| 2776.60                               |                                          | 2333.01 12              | 100                | 443.562   | 3/2 <sup>+</sup>                    |                    |
| 2785.36                               | 3/2                                      | 1713.43 <sup>e</sup> 8  |                    | 1071.868  | 5/2 <sup>-</sup>                    |                    |
|                                       |                                          | 2321.6                  |                    | 463.3668  | 5/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2751.1 <sup>e</sup> 4   |                    | 35.4925   | 3/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2786.30                 |                    | 0.0       | 1/2 <sup>+</sup>                    |                    |
| 2801.92                               | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup> | 2338.2                  |                    | 463.3668  | 5/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2801.9 2                |                    | 0.0       | 1/2 <sup>+</sup>                    |                    |
| 2814.40?                              |                                          | 2351.75 13              |                    | 463.3668  | 5/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2370.18 12              |                    | 443.562   | 3/2 <sup>+</sup>                    |                    |
| 2819.37?                              |                                          | 2148.9                  | 55.6               | 671.4448  | 5/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2355.65 18              | 89 6               | 463.3668  | 5/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2784.34 23              | 100 11             | 35.4925   | 3/2 <sup>+</sup>                    |                    |
| 2898.09                               | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup> | 2434.95 <sup>e</sup> 21 | <50.0              | 463.3668  | 5/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2898.00 10              | 100 6              | 0.0       | 1/2 <sup>+</sup>                    |                    |
| 2936.67                               |                                          | 2492.29 <sup>e</sup> 12 |                    | 443.562   | 3/2 <sup>+</sup>                    |                    |
|                                       |                                          | 2902.38 15              | 100 8              | 35.4925   | 3/2 <sup>+</sup>                    |                    |
| 2952.20                               |                                          | 1878.5 <sup>e</sup> 3   |                    | 1071.868  | 5/2 <sup>-</sup>                    |                    |

Adopted Levels, Gammas (continued)

| $\gamma(^{125}\text{Te})$ (continued) |                                          |                                             |                                      |          |                                          |
|---------------------------------------|------------------------------------------|---------------------------------------------|--------------------------------------|----------|------------------------------------------|
| $E_i(\text{level})$                   | $J_i^\pi$                                | $E_\gamma$ <sup><math>\ddagger</math></sup> | $I_\gamma$ <sup><math>a</math></sup> | $E_f$    | $J_f^\pi$                                |
| 2952.20                               |                                          | 2916.87 <i>10</i>                           |                                      | 35.4925  | 3/2 <sup>+</sup>                         |
| 2974.63                               |                                          | 2245.30 <i>19</i>                           | 61 8                                 | 729.229  | 3/2 <sup>+</sup>                         |
|                                       |                                          | 2302.6 <i>1</i>                             | <72.2                                | 671.4448 | 5/2 <sup>+</sup>                         |
|                                       |                                          | 2510.92 <i>15</i>                           | 100 <i>11</i>                        | 463.3668 | 5/2 <sup>+</sup>                         |
|                                       |                                          | 2939.98 <i>11</i>                           | 25 7                                 | 35.4925  | 3/2 <sup>+</sup>                         |
| 2990.87                               | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup> | 2262.6                                      | 12.5                                 | 729.229  | 3/2 <sup>+</sup>                         |
|                                       |                                          | 2317.9 <i>3</i>                             | 38 9                                 | 671.4448 | 5/2 <sup>+</sup>                         |
|                                       |                                          | 2527.19 <i>12</i>                           | 100 <i>4</i>                         | 463.3668 | 5/2 <sup>+</sup>                         |
|                                       |                                          | 2547.2                                      | 25.0                                 | 443.562  | 3/2 <sup>+</sup>                         |
|                                       |                                          | 2956.05 <i>10</i>                           |                                      | 35.4925  | 3/2 <sup>+</sup>                         |
|                                       |                                          | 2990.02 <i>15</i>                           | 48 5                                 | 0.0      | 1/2 <sup>+</sup>                         |
| 3002.37                               |                                          | 2273.36 <i>18</i>                           | 71 6                                 | 729.229  | 3/2 <sup>+</sup>                         |
|                                       |                                          | 2330.27 <i>20</i>                           | 100 6                                | 671.4448 | 5/2 <sup>+</sup>                         |
|                                       |                                          | 2539.40 <i>23</i>                           | 29 6                                 | 463.3668 | 5/2 <sup>+</sup>                         |
| 3021.63                               | 3/2                                      | 1699.87 <i>11</i>                           |                                      | 1322.33  | 5/2 <sup>-</sup> , 7/2 <sup>-</sup>      |
|                                       |                                          | 1949.3                                      |                                      | 1071.868 | 5/2 <sup>-</sup>                         |
|                                       |                                          | 2291.32 <i>20</i>                           | 36 4                                 | 729.229  | 3/2 <sup>+</sup>                         |
|                                       |                                          | 2483.8 <i>3</i>                             | 27 7                                 | 537.851  | (1/2 <sup>+</sup> )                      |
|                                       |                                          | 2557.38 <i>13</i>                           | 100 5                                | 463.3668 | 5/2 <sup>+</sup>                         |
|                                       |                                          | 2986.37 <i>15</i>                           | 82 5                                 | 35.4925  | 3/2 <sup>+</sup>                         |
|                                       |                                          | 3022.27 <i>20</i>                           | 41 5                                 | 0.0      | 1/2 <sup>+</sup>                         |
| 3072.38                               |                                          | 1829.68 <sup><i>e</i></sup> <i>9</i>        |                                      | 1242.820 | 1/2 <sup>+</sup> , 3/2, 5/2 <sup>+</sup> |
|                                       |                                          | 2400.50 <i>20</i>                           | 100 8                                | 671.4448 | 5/2 <sup>+</sup>                         |
|                                       |                                          | 3036.76 <sup><i>e</i></sup> <i>11</i>       | 59.1                                 | 35.4925  | 3/2 <sup>+</sup>                         |
| 3106.64                               | 1/2 <sup>+</sup> , 3/2                   | 2434.95 <sup><i>e</i></sup> <i>21</i>       |                                      | 671.4448 | 5/2 <sup>+</sup>                         |
|                                       |                                          | 2568.72 <i>13</i>                           |                                      | 537.851  | (1/2 <sup>+</sup> )                      |
|                                       |                                          | 2644.59 <i>20</i>                           | 100 <i>12</i>                        | 463.3668 | 5/2 <sup>+</sup>                         |
|                                       |                                          | 2662.78 <i>18</i>                           | 65 9                                 | 443.562  | 3/2 <sup>+</sup>                         |
|                                       |                                          | 3106.41 <sup><i>e</i></sup> <i>10</i>       |                                      | 0.0      | 1/2 <sup>+</sup>                         |
| 3142.30                               | 3/2                                      | 2070.68 <i>11</i>                           | 100 <i>3</i>                         | 1071.868 | 5/2 <sup>-</sup>                         |
|                                       |                                          | 2699.01 <i>20</i>                           | 84 <i>10</i>                         | 443.562  | 3/2 <sup>+</sup>                         |
|                                       |                                          | 3106.41 <sup><i>e</i></sup> <i>10</i>       | <80.6                                | 35.4925  | 3/2 <sup>+</sup>                         |
|                                       |                                          | 3142.48 <i>18</i>                           | 48 4                                 | 0.0      | 1/2 <sup>+</sup>                         |
| 3174.41                               | 1/2 <sup>-</sup> , 3/2                   | 2103.37 <sup><i>e</i></sup> <i>16</i>       |                                      | 1071.868 | 5/2 <sup>-</sup>                         |
|                                       |                                          | 2730.55 <sup><i>e</i></sup> <i>15</i>       |                                      | 443.562  | 3/2 <sup>+</sup>                         |
|                                       |                                          | 3138.67 <sup><i>e</i></sup> <i>10</i>       |                                      | 35.4925  | 3/2 <sup>+</sup>                         |
| 3183.84                               | 1/2, 3/2, 5/2 <sup>+</sup>               | 2454.17 <i>15</i>                           | 67 6                                 | 729.229  | 3/2 <sup>+</sup>                         |
|                                       |                                          | 2740.78                                     | 85.3                                 | 443.562  | 3/2 <sup>+</sup>                         |
|                                       |                                          | 3184.20 <i>15</i>                           | 100 7                                | 0.0      | 1/2 <sup>+</sup>                         |
| 3208.37                               | 1/2, 3/2                                 | 1888.41 <sup><i>e</i></sup> <i>12</i>       | <107                                 | 1319.538 | 3/2 <sup>-</sup>                         |



**Adopted Levels, Gammas (continued)**

$\gamma(^{125}\text{Te})$  (continued)

| $E_i(\text{level})$ | $J_i^\pi$                          | $E_\gamma^\ddagger$ | $I_\gamma^a$ | $E_f$    | $J_f^\pi$        | $E_i(\text{level})$ | $J_i^\pi$                              | $E_\gamma^\ddagger$     | $I_\gamma^a$ | $E_f$    | $J_f^\pi$        |
|---------------------|------------------------------------|---------------------|--------------|----------|------------------|---------------------|----------------------------------------|-------------------------|--------------|----------|------------------|
| 3208.37             | 1/2,3/2                            | 2763.4              |              | 443.562  | 3/2 <sup>+</sup> | 3532.16             |                                        | 3089.2 3                |              | 443.562  | 3/2 <sup>+</sup> |
|                     |                                    | 3174.07 15          | 64 9         | 35.4925  | 3/2 <sup>+</sup> |                     |                                        | 3496.54 & 10            |              | 35.4925  | 3/2 <sup>+</sup> |
|                     |                                    | 3207.84 14          | 100 7        | 0.0      | 1/2 <sup>+</sup> | 3554.76             |                                        | 3092.10 20              | 56 7         | 463.3668 | 5/2 <sup>+</sup> |
| 3291.59?            |                                    | 1971.59 13          | 73 6         | 1319.538 | 3/2 <sup>-</sup> |                     |                                        | 3519.2                  |              | 35.4925  | 3/2 <sup>+</sup> |
|                     |                                    | 3291.8 1            | 100 7        | 0.0      | 1/2 <sup>+</sup> |                     |                                        | 3554.28 15              | 100 8        | 0.0      | 1/2 <sup>+</sup> |
| 3430.03             | 1/2 <sup>-</sup> ,3/2 <sup>-</sup> | 3394.48 & 11        |              | 35.4925  | 3/2 <sup>+</sup> | 3564.20?            | 1/2 <sup>-</sup> ,3/2,5/2 <sup>+</sup> | 2492.29 <sup>e</sup> 12 | 100 6        | 1071.868 | 5/2 <sup>-</sup> |
|                     |                                    | 3430.5              |              | 0.0      | 1/2 <sup>+</sup> |                     |                                        | 3564.9                  |              | 0.0      | 1/2 <sup>+</sup> |

<sup>†</sup> Additional information 3.

<sup>‡</sup> From <sup>125</sup>Sb  $\beta$ -decay, <sup>125</sup>Te IT decay, <sup>124</sup>Sn( $\alpha$ ,3n $\gamma$ ), <sup>124</sup>Te(n, $\gamma$ ) and Coulomb Excitation, unless otherwise noted.

<sup>#</sup> See comment on the 402 level in Adopted Levels.

<sup>@</sup> From Coul. ex.

<sup>&</sup> Multiple placement in (n, $\gamma$ ).

<sup>a</sup> From <sup>125</sup>I IT decay, <sup>125</sup>Sb  $\beta$ -decay <sup>124</sup>Sn( $\alpha$ ,3n $\gamma$ ), <sup>124</sup>Te(n, $\gamma$ ) and Coulomb Excitation, unless otherwise noted.

<sup>b</sup> From Coul. ex.

<sup>c</sup> From  $\alpha$ (exp) and  $\gamma\gamma$ ( $\theta$ ) in <sup>125</sup>Sb  $\beta^-$  decay and <sup>125</sup>Te it decay and  $\gamma$ ( $\theta$ ) in <sup>124</sup>Sn( $\alpha$ ,3n $\gamma$ ).

<sup>d</sup> From 1977Kr13, unless otherwise noted.

<sup>e</sup> Multiply placed.

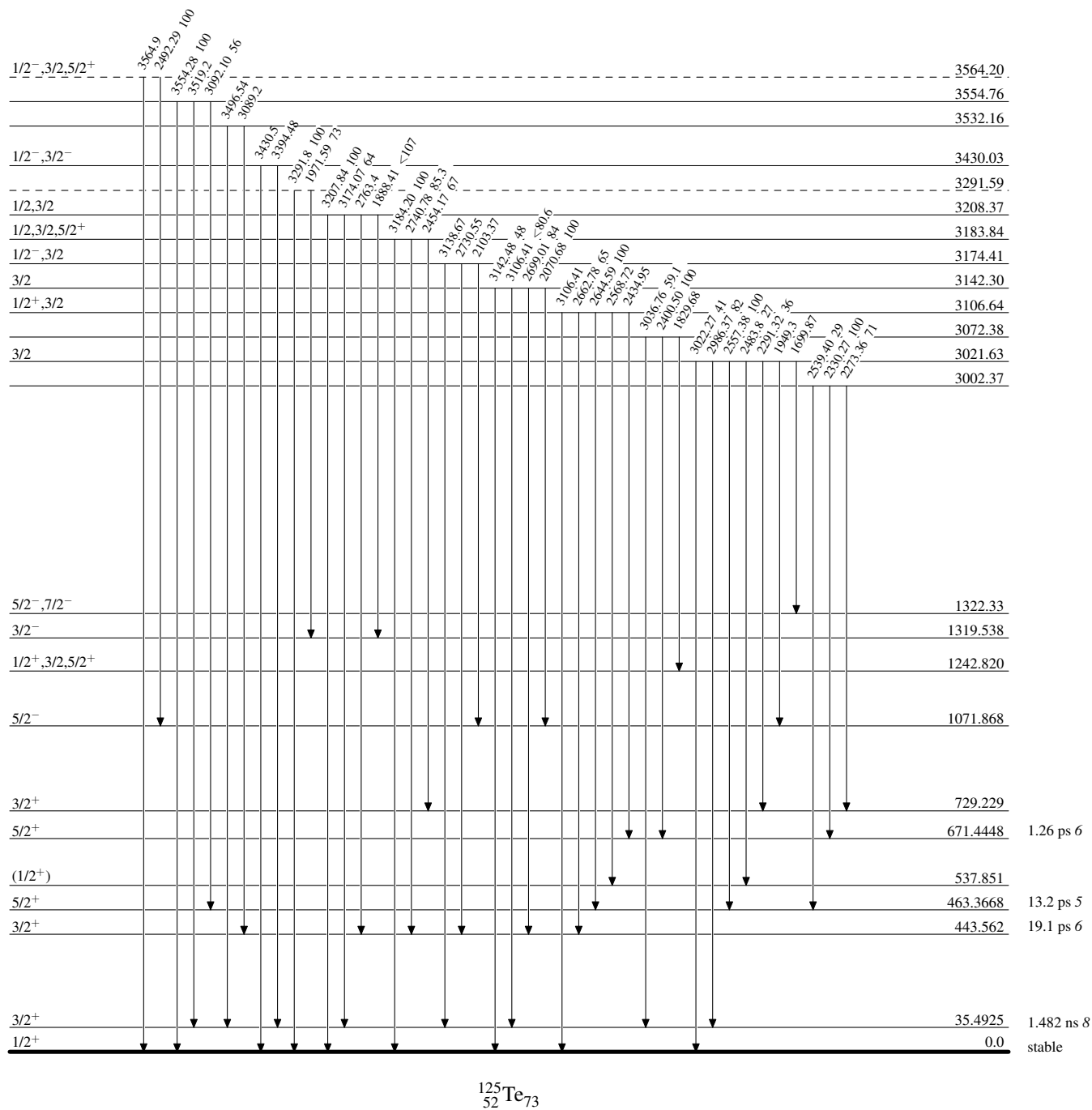
<sup>f</sup> Multiply placed with undivided intensity.

<sup>g</sup> Multiply placed with intensity suitably divided.

<sup>h</sup> Placement of transition in the level scheme is uncertain.

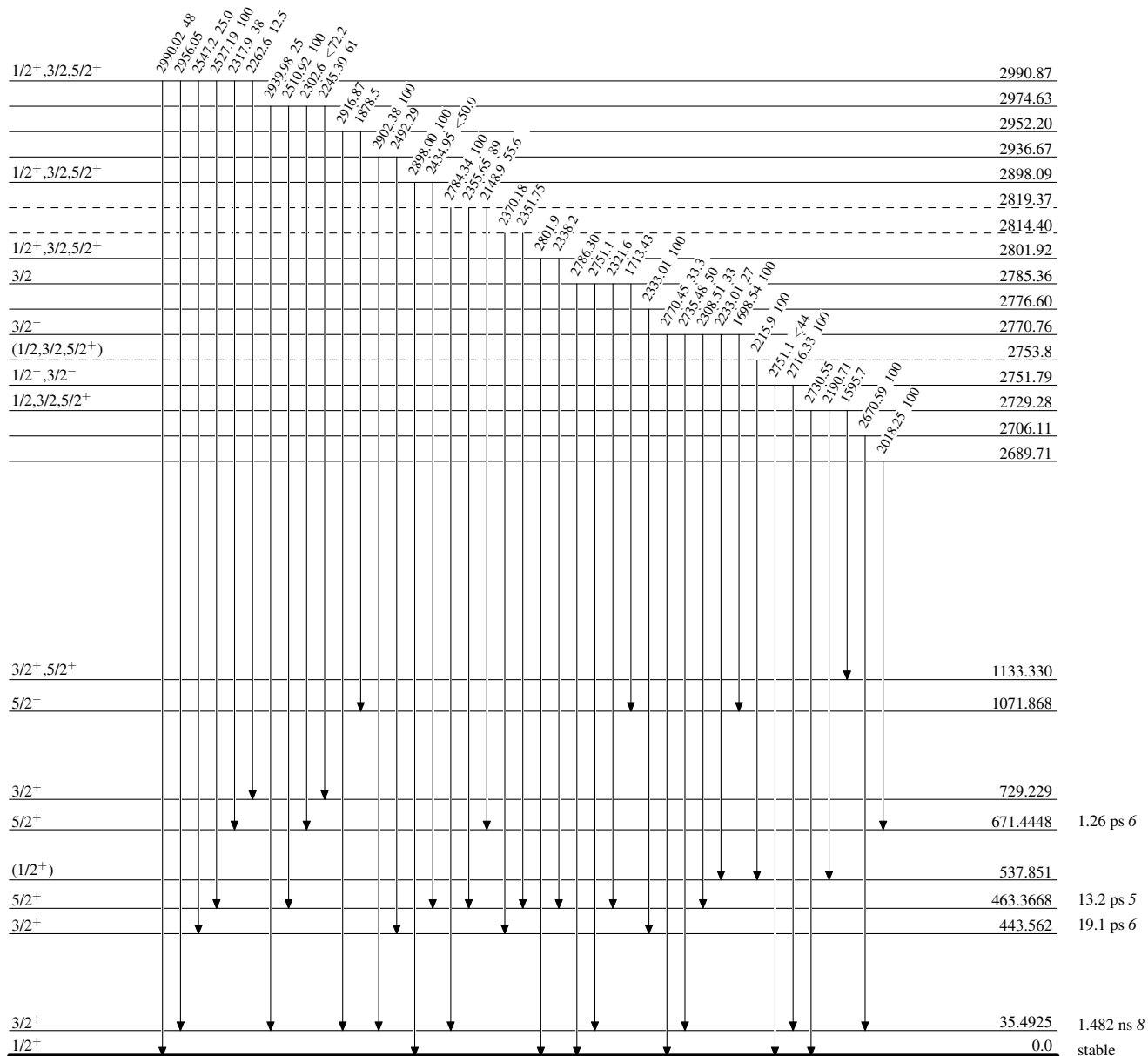
Adopted Levels, GammasLevel Scheme

Intensities: Relative photon branching from each level



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

Intensities: Relative photon branching from each level

 $^{125}_{52}\text{Te}_{73}$

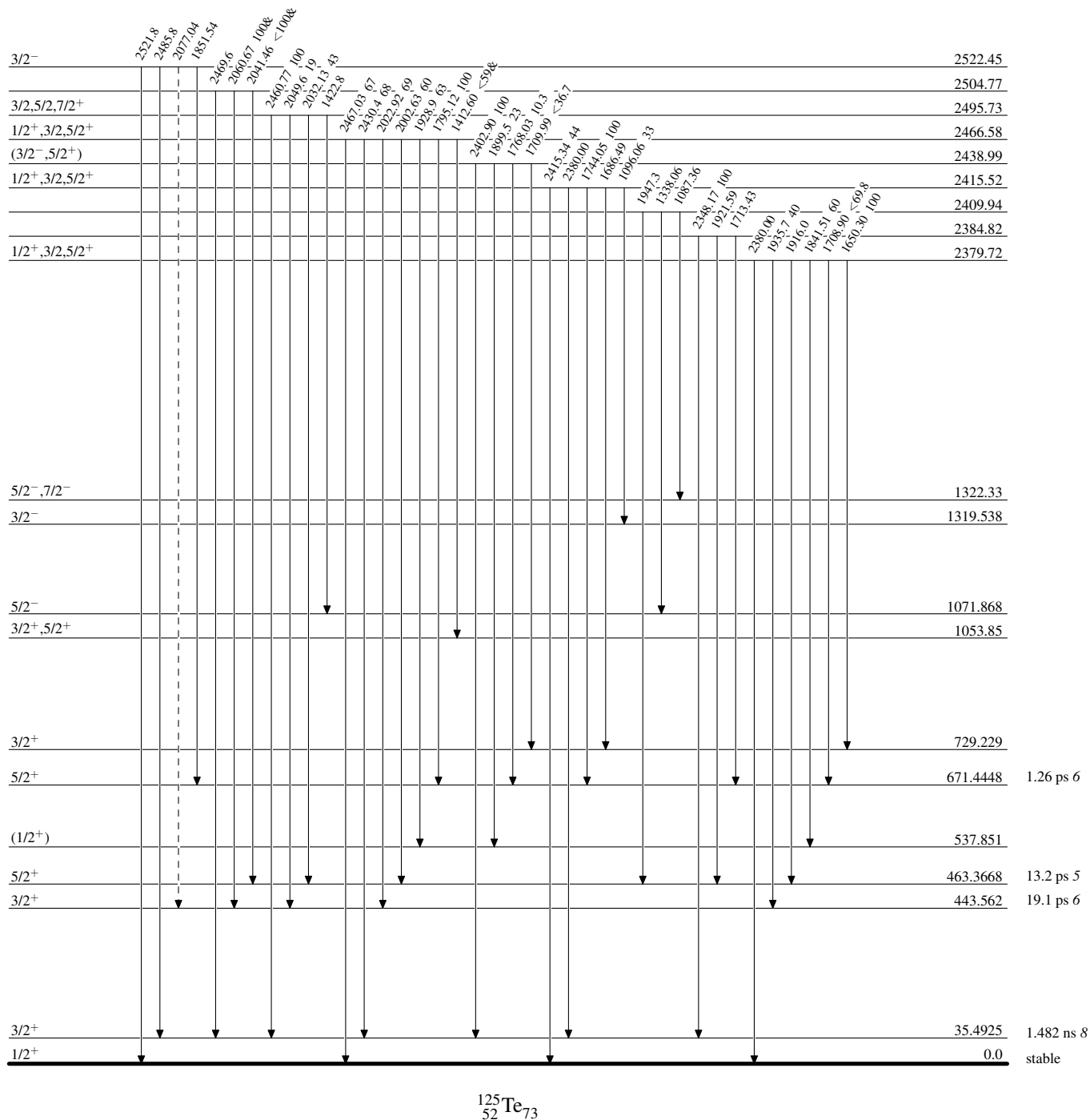


**Adopted Levels, Gammas**

Legend

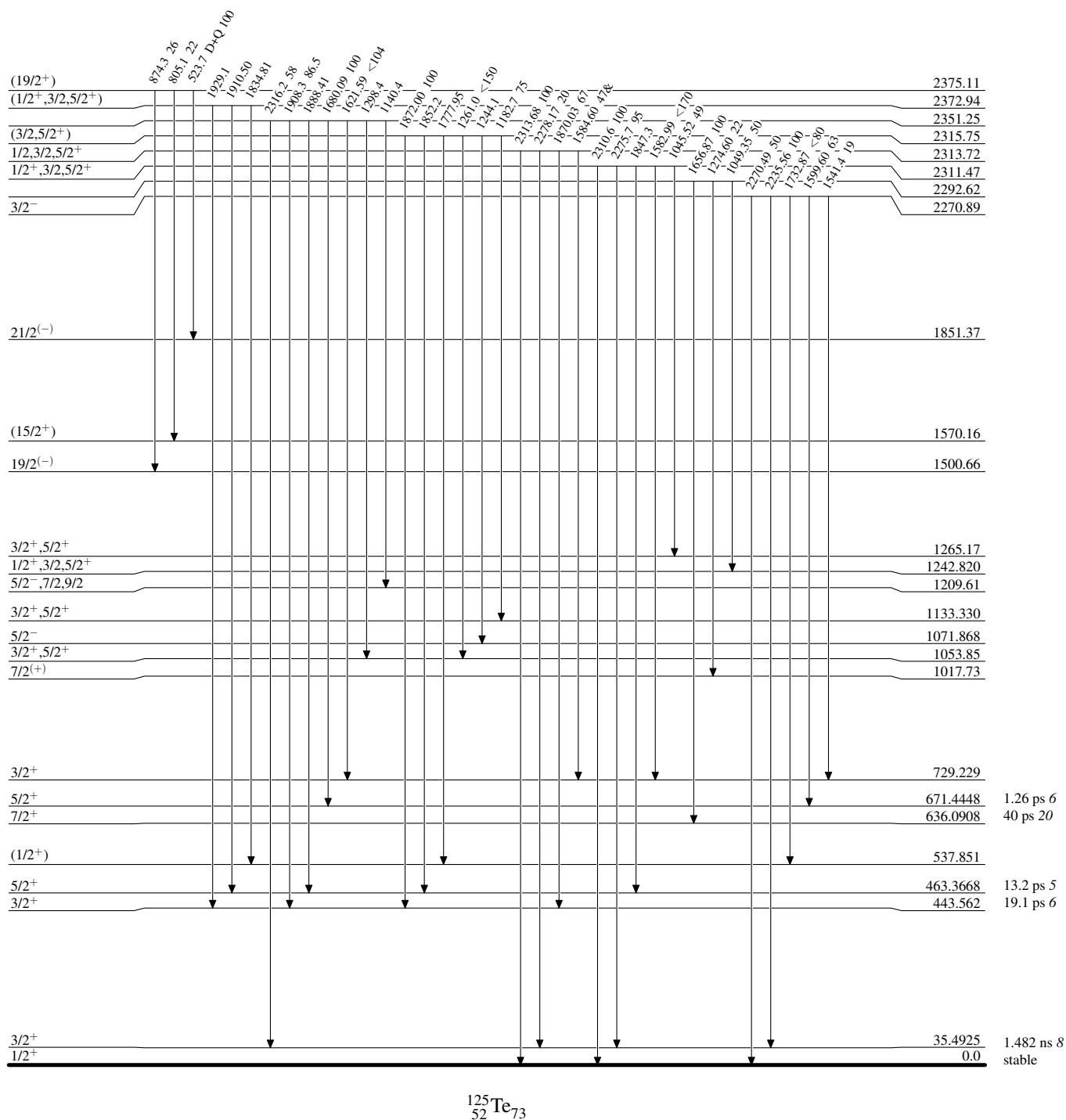
**Level Scheme (continued)**

Intensities: Relative photon branching from each level  
& Multiply placed: undivided intensity given

-----►  $\gamma$  Decay (Uncertain)

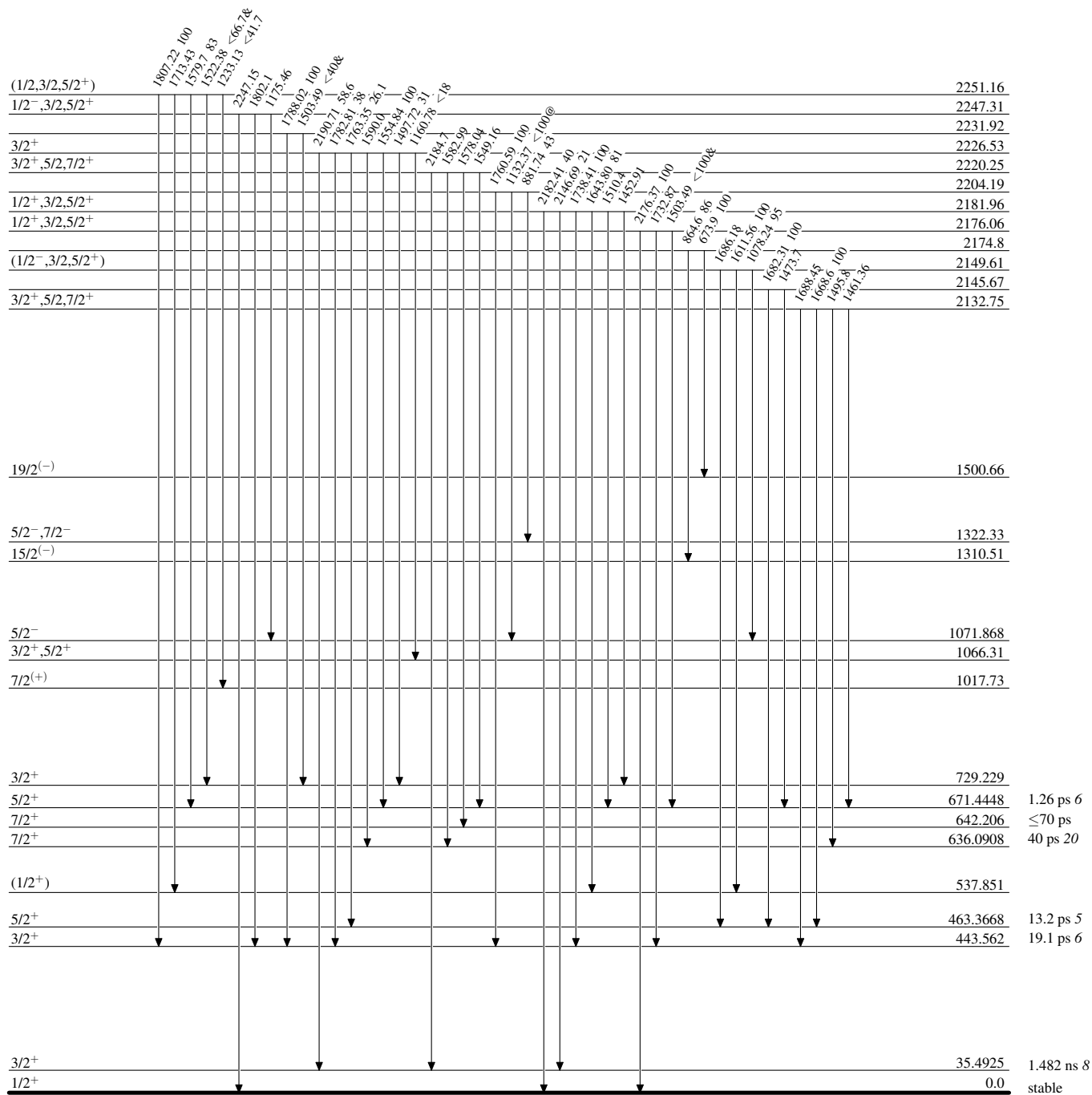
**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Relative photon branching from each level  
& Multiply placed: undivided intensity given



Adopted Levels, GammasLevel Scheme (continued)

Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given  
 @ Multiply placed: intensity suitably divided

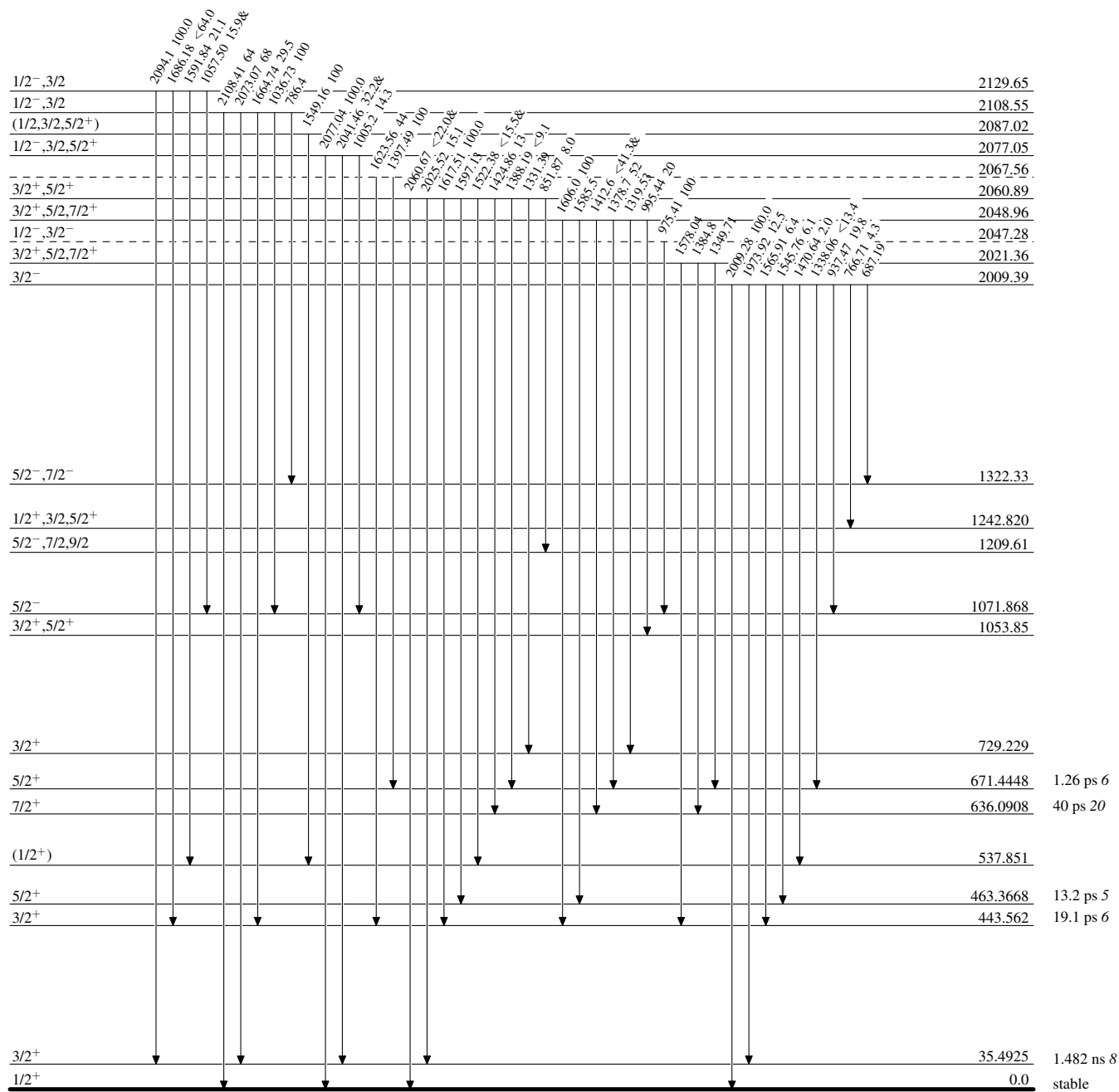


**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Relative photon branching from each level

&amp; Multiply placed: undivided intensity given

@ Multiply placed: intensity suitably divided



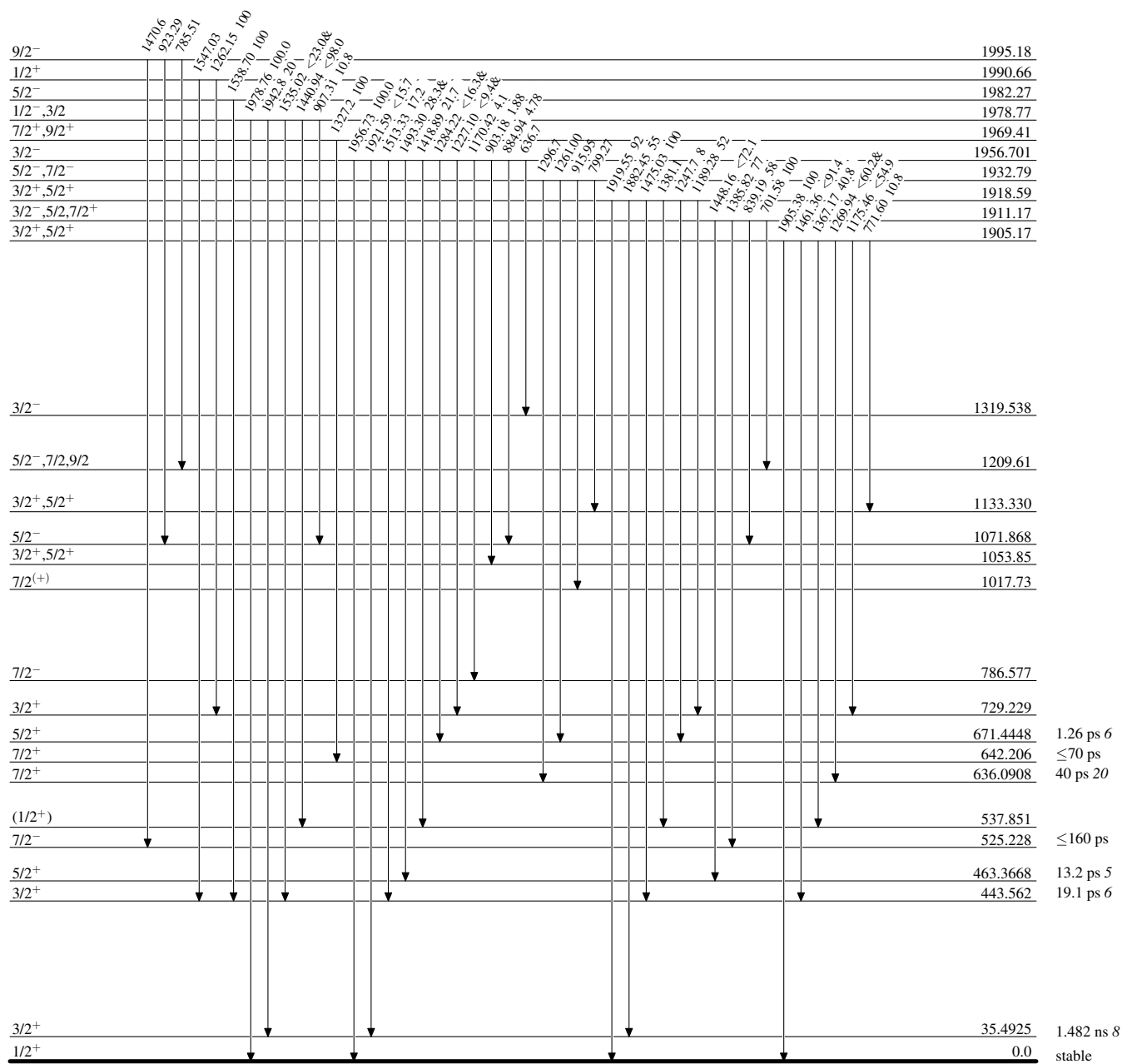


**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Relative photon branching from each level

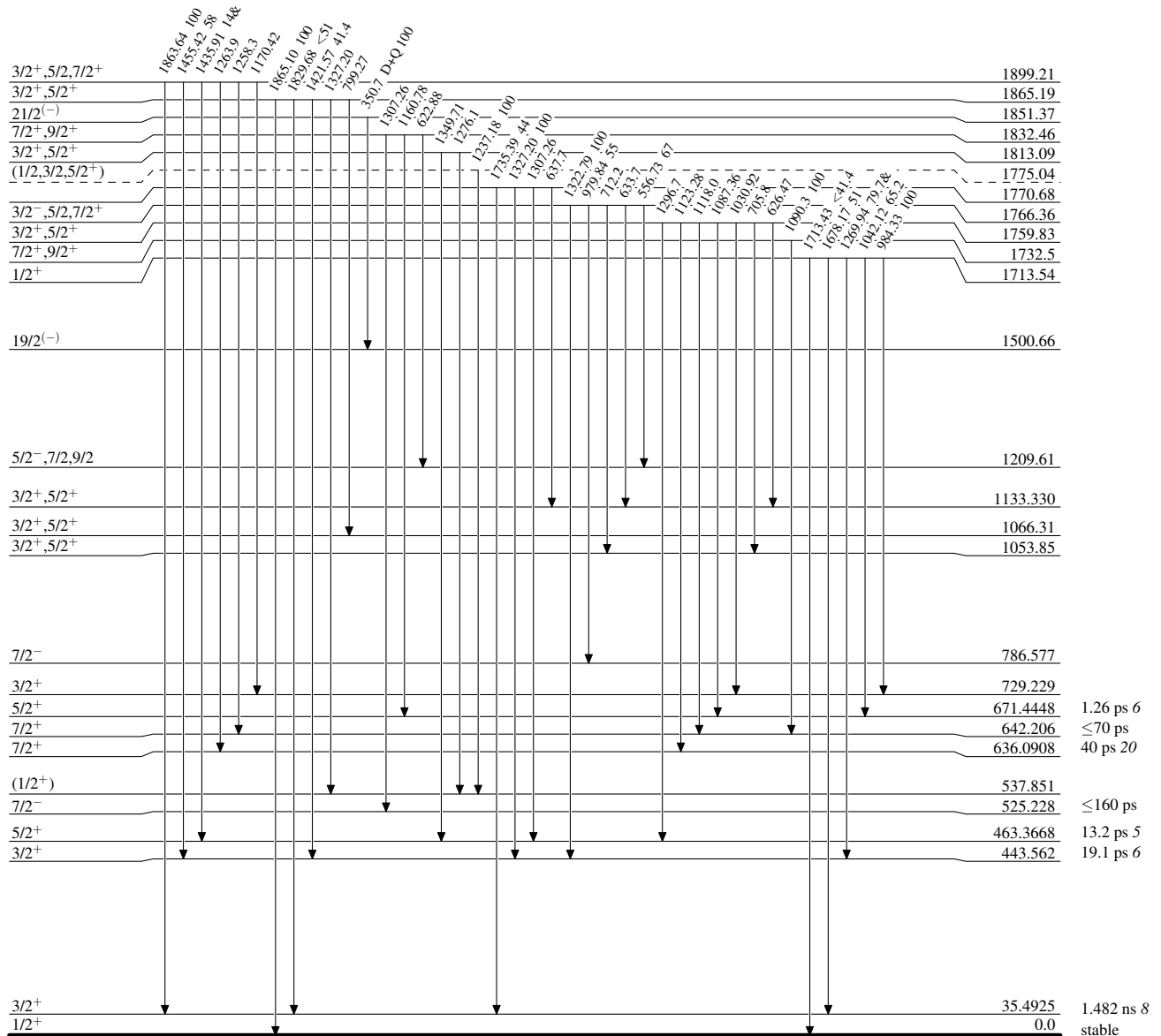
&amp; Multiply placed: undivided intensity given

@ Multiply placed: intensity suitably divided



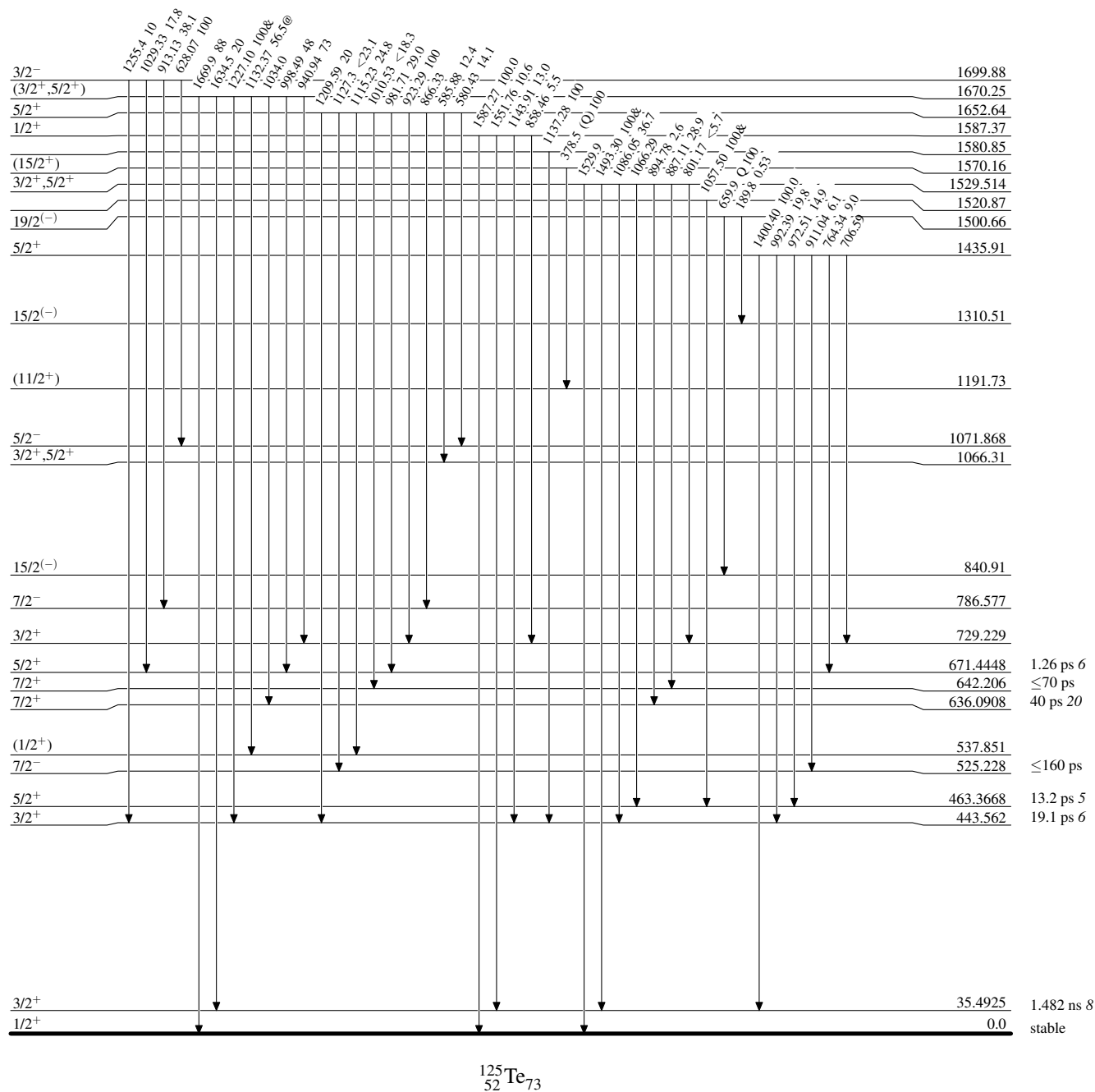
**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Relative photon branching from each level  
& Multiply placed: undivided intensity given  
@ Multiply placed: intensity suitably divided



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

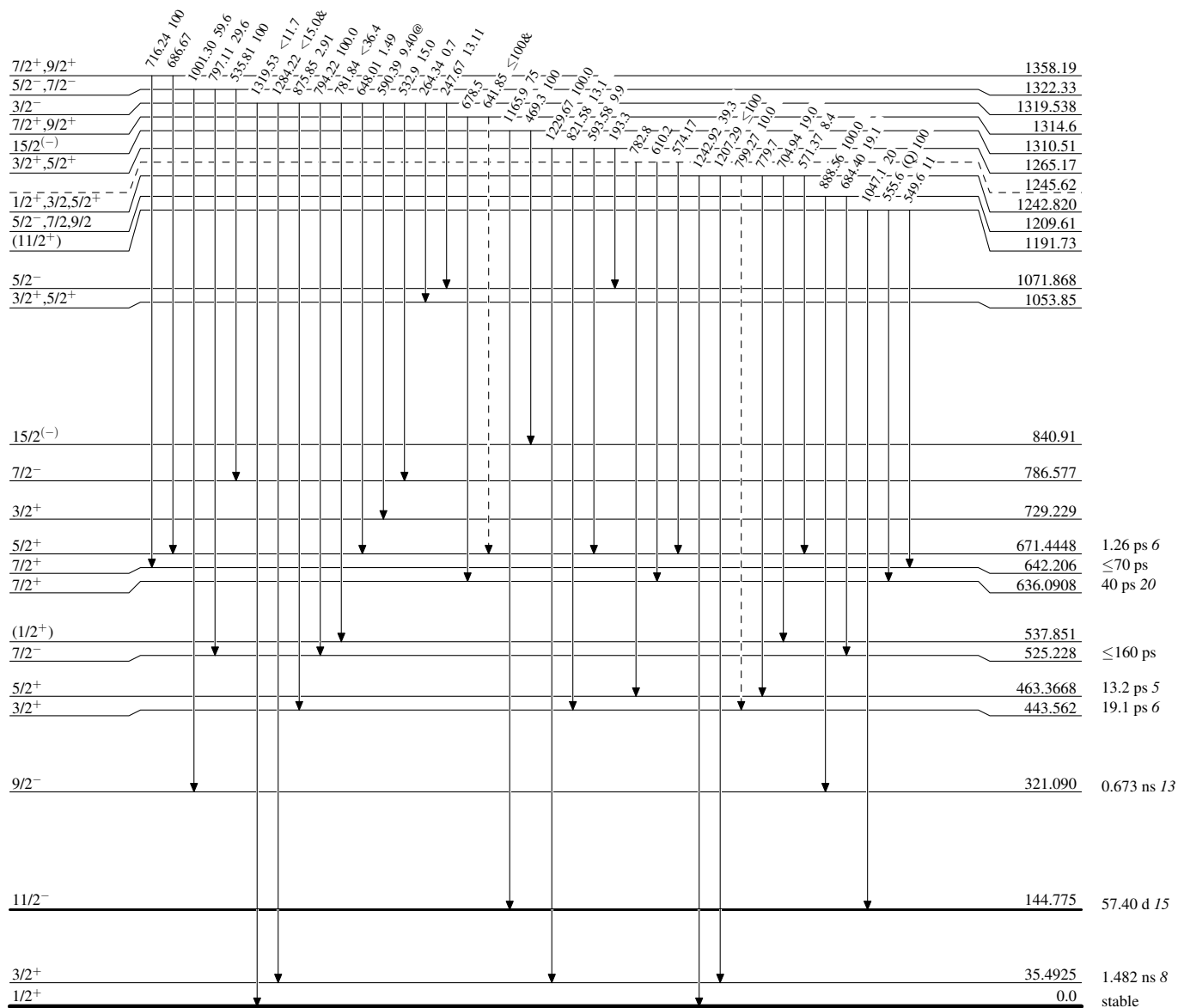
Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given  
 @ Multiply placed: intensity suitably divided



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

Legend

Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given  
 @ Multiply placed: intensity suitably divided

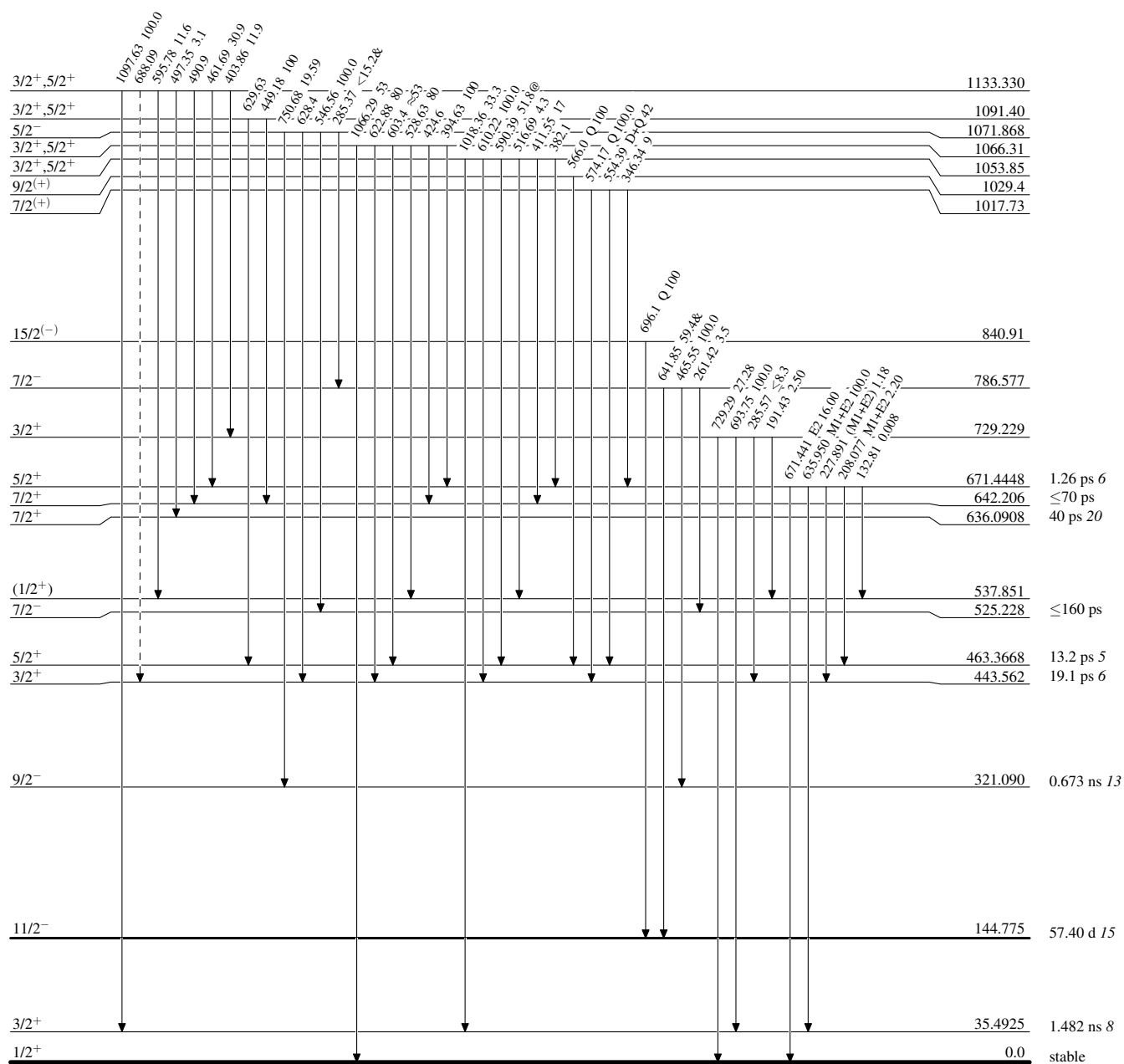
-----►  $\gamma$  Decay (Uncertain) $^{125}_{52}\text{Te}_{73}$

## Adopted Levels, Gammas

## Level Scheme (continued)

Legend

Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given  
 @ Multiply placed: intensity suitably divided

-----►  $\gamma$  Decay (Uncertain)

Adopted Levels, Gammas

Level Scheme (continued)

Legend

Intensities: Relative photon branching from each level  
& Multiply placed: undivided intensity given  
@ Multiply placed: intensity suitably divided

-----▶  $\gamma$  Decay (Uncertain)

