

| $E_{Measured}$ (keV) | $E_{Accepted}$ (keV)         | Source                            | RI       | $\chi^2$   |
|----------------------|------------------------------|-----------------------------------|----------|------------|
| 510.91 ± 0.46        | (5.11 ± 0) × 10 <sup>2</sup> | Pair production                   | 529.42   | 325.244    |
| 1460.82 ± 0.30       | 1460.8220 ± 0.0060           | <sup>40</sup> K                   | 601.78   | 2695.882   |
| 1120.25 ± 0.33       | 1120.5370 ± 0.0030           | <sup>46</sup> Sc                  | 71.78    | 94.943     |
| 1238.25 ± 0.13       | 1238.2736 ± 0.0022           | <sup>56</sup> Co                  | 48.75    | 52.618     |
| 510.91 ± 0.46        | (5.11 ± 0) × 10 <sup>2</sup> | <sup>27</sup> Co                  | 529.42   | 325.244    |
| 510.91 ± 0.46        | (5.11 ± 0) × 10 <sup>2</sup> | <sup>64</sup> Cu                  | 529.42   | 325.244    |
| 510.91 ± 0.46        | (5.11 ± 0) × 10 <sup>2</sup> | <sup>65</sup> Zn                  | 529.42   | 325.244    |
| 510.91 ± 0.46        | (5.11 ± 0) × 10 <sup>2</sup> | <sup>68</sup> Ga                  | 529.42   | 325.244    |
| 1460.82 ± 0.30       | 1460.8220 ± 0.0060           | <sup>40</sup> K                   | 601.78   | 2695.882   |
| 295.26 ± 0.15        | 294.980 ± 0.020              | <sup>103</sup> Ru                 | 253.38   | 17.558     |
| 443.83 ± 0.19        | 443.800 ± 0.020              | <sup>103</sup> Ru                 | 184.14   | 39.032     |
| 794.56 ± 0.76        | 795.830 ± 0.030              | <sup>134</sup> Cs                 | 91.17    | 13.615     |
| 661.62 ± 0.22        | 661.6570 ± 0.0030            | <sup>137</sup> Cs                 | 18420.51 | 107585.999 |
| 81.02 ± 0.13         | 80.9979 ± 0.0011             | <sup>55</sup> Ba                  | 502.79   | 4764.944   |
| 302.83 ± 0.20        | 302.85080 ± 0.00050          | <sup>133</sup> Ba                 | 243.29   | 5.391      |
| 355.97 ± 0.17        | 356.01290 ± 0.00070          | <sup>56</sup> Ba                  | 561.83   | 39.577     |
| 121.74 ± 0.14        | 121.78170 ± 0.00030          | <sup>152</sup> Eu                 | 4542.07  | 3136.977   |
| 244.69 ± 0.16        | 244.69740 ± 0.00080          | <sup>152</sup> Eu                 | 774.09   | -51919.300 |
| 344.25 ± 0.18        | 344.2785 ± 0.0012            | <sup>152</sup> Eu                 | 1665.39  | 192.947    |
| 411.16 ± 0.14        | 411.1165 ± 0.0012            | <sup>152</sup> Eu                 | 140.55   | 19.061     |
| 443.83 ± 0.19        | 443.9650 ± 0.0030            | <sup>152</sup> Eu                 | 184.14   | 39.032     |
| 778.88 ± 0.25        | 778.9045 ± 0.0024            | <sup>152</sup> Eu                 | 255.85   | 378.184    |
| 867.38 ± 0.31        | 867.3800 ± 0.0030            | <sup>152</sup> Eu                 | 68.42    | 12.426     |
| 964.05 ± 0.24        | 964.072 ± 0.018              | <sup>152</sup> Eu                 | 269.09   | 258.310    |
| 1085.85 ± 0.27       | 1085.837 ± 0.010             | <sup>152</sup> Eu                 | 146.25   | 345.044    |
| 1112.12 ± 0.28       | 1112.0760 ± 0.0030           | <sup>152</sup> Eu                 | 171.28   | 123.887    |
| 1408.00 ± 0.31       | 1408.0130 ± 0.0030           | <sup>152</sup> Eu                 | 203.10   | 870.759    |
| 411.16 ± 0.14        | 410.9560 ± 0.0030            | <sup>166m</sup> Ho                | 140.55   | 19.061     |
| 63.28 ± 0.12         | 63.120440 ± 0.000040         | <sup>169</sup> Yb                 | 320.18   | -6767.919  |
| 583.11 ± 0.24        | 583.1870 ± 0.0020            | <sup>208</sup> Tl                 | 191.07   | 57.721     |
| 860.62 ± 0.15        | 860.560 ± 0.030              | <sup>81</sup> Tl                  | 32.66    | 2.187      |
| 2614.66 ± 0.39       | 2614.511 ± 0.010             | <sup>208</sup> Tl                 | 117.85   | 1594.615   |
| 238.60 ± 0.16        | 238.6320 ± 0.0020            | <sup>82</sup> Pb                  | 692.62   | 91.244     |
| 295.26 ± 0.15        | 295.2240 ± 0.0020            | <sup>82</sup> Pb                  | 253.38   | 17.558     |
| 351.86 ± 0.19        | 351.9320 ± 0.0020            | <sup>214</sup> Pb                 | 348.31   | 14.072     |
| 727.29 ± 0.29        | 727.330 ± 0.010              | <sup>212</sup> Bi                 | 47.03    | 4.472      |
| 609.24 ± 0.20        | 609.3160 ± 0.0030            | <sup>214</sup> Bi                 | 301.13   | 129.597    |
| 1120.25 ± 0.33       | 1120.287 ± 0.010             | <sup>214</sup> Bi                 | 71.78    | 94.943     |
| 1238.25 ± 0.13       | 1238.110 ± 0.012             | <sup>214</sup> Bi                 | 48.75    | 52.618     |
| 1408.00 ± 0.31       | 1407.9930 ± 0.0070           | <sup>214</sup> Bi                 | 203.10   | 870.759    |
| 1764.58 ± 0.34       | 1764.539 ± 0.015             | <sup>214</sup> Bi                 | 83.19    | 197.763    |
| 1847.53 ± 0.36       | 1847.420 ± 0.025             | <sup>214</sup> Bi                 | 15.56    | 24.772     |
| 2204.29 ± 0.41       | 2204.071 ± 0.021             | <sup>214</sup> Bi                 | 25.42    | 205.451    |
| 63.28 ± 0.12         | 63.290 ± 0.020               | <sup>234</sup> Th                 | 320.18   | -6767.919  |
| 92.58 ± 0.17         | 92.380 ± 0.010               | <sup>234</sup> Th                 | 588.37   | -6349.182  |
| 92.58 ± 0.17         | 92.800 ± 0.020               | <sup>234</sup> Th                 | 588.37   | -6349.182  |
| 59.53 ± 0.13         | 59.54090 ± 0.00010           | <sup>241</sup> Am                 | 4504.14  | -11635.446 |
| 59.53 ± 0.13         | 59.54090 ± 0.00010           | <sup>95</sup> Am                  | 4504.14  | -11635.446 |
| 10.56 ± 0.21         | 10.508 ± 0                   | <sup>75</sup> Se As K $\alpha$ 2  | 550.48   | -4384.009  |
| 10.56 ± 0.21         | 10.5437 ± 0                  | <sup>75</sup> Se As K $\alpha$ 1  | 550.48   | -4384.009  |
| 10.56 ± 0.21         | 10.622 ± 0                   | <sup>228</sup> Th Ra Ll           | 550.48   | -4384.009  |
| 72.81 ± 0.13         | 72.80490 ± 0.00080           | <sup>228</sup> Th Pb K $\alpha$ 2 | 3460.73  | 12117.928  |
| 72.81 ± 0.13         | 72.805 ± 0                   | <sup>207</sup> Bi Pb K $\alpha$ 2 | 3460.73  | 12117.928  |
| 72.81 ± 0.13         | 72.87250 ± 0.00080           | <sup>203</sup> Hg Tl K $\alpha$ 1 | 3460.73  | 12117.928  |
| 74.97 ± 0.14         | 74.97 ± 0                    | <sup>207</sup> Bi Pb K $\alpha$ 1 | 6876.17  | -18528.417 |
| 74.97 ± 0.14         | 74.97000 ± 0.00090           | <sup>228</sup> Th Pb K $\alpha$ 1 | 6876.17  | -18528.417 |
| 77.11 ± 0.12         | 77.1088 ± 0.0010             | <sup>228</sup> Th Bi K $\alpha$ 1 | 227.92   | -6612.198  |
| 59.53 ± 0.13         | 59.48 ± 0.32                 | <sup>170</sup> Tm Yb K $\beta$ '1 | 4504.14  | -11635.446 |
| 10.56 ± 0.21         | 11.8 ± 3.1                   | <sup>198</sup> Au Hg L            | 550.48   | -4384.009  |
| 10.56 ± 0.21         | 11.8 ± 3.1                   | <sup>201</sup> Tl Hg L            | 550.48   | -4384.009  |
| 10.56 ± 0.21         | 11.8 ± 2.9                   | <sup>203</sup> Hg Tl L            | 550.48   | -4384.009  |
| 84.80 ± 0.18         | 84.96 ± 0.51                 | <sup>207</sup> Bi Pb K $\beta$ '1 | 2945.83  | -12049.349 |
| 84.80 ± 0.18         | 84.96 ± 0.51                 | <sup>228</sup> Th Pb K $\beta$ '1 | 2945.83  | -12049.349 |
| 87.29 ± 0.17         | 87.35 ± 0.51                 | <sup>228</sup> Th Bi K $\beta$ '1 | 1063.96  | -6762.176  |
| 87.29 ± 0.17         | 87.62 ± 0.38                 | <sup>207</sup> Bi Pb K $\beta$ '2 | 1063.96  | -6762.176  |
| 87.29 ± 0.17         | 87.62 ± 0.38                 | <sup>228</sup> Th Pb K $\beta$ '2 | 1063.96  | -6762.176  |
| 10.56 ± 0.21         | 12.5 ± 3.3                   | <sup>207</sup> Bi Pb L            | 550.48   | -4384.009  |
| 10.56 ± 0.21         | 12.2 ± 3.0                   | <sup>228</sup> Th Pb L            | 550.48   | -4384.009  |
| 10.56 ± 0.21         | 11.6 ± 2.2                   | <sup>192</sup> Ir Pt L            | 550.48   | -4384.009  |
| 10.56 ± 0.21         | 12.6 ± 3.1                   | <sup>228</sup> Th Bi L            | 550.48   | -4384.009  |
| 74.97 ± 0.14         | 74.96 ± 0.10                 | <sup>235</sup> U                  | 6876.17  | -18528.417 |

|                |                    |                       |        |           |
|----------------|--------------------|-----------------------|--------|-----------|
| 129.22 ± 0.17  | 129.2960 ± 0.0010  | $^{235}_{92}\text{U}$ | 197.12 | 1298.726  |
| 302.83 ± 0.20  | 302.870 ± 0.050    | $^{235}_{92}\text{U}$ | 243.29 | 5.391     |
| 411.16 ± 0.14  | 411.20 ± 0.30      | $^{235}_{92}\text{U}$ | 140.55 | 19.061    |
| 583.11 ± 0.24  | 582.89 ± 0.10      | $^{235}_{92}\text{U}$ | 191.07 | 57.721    |
| 803.12 ± 0.12  | 803.20 ± 0.20      | $^{235}_{92}\text{U}$ | 49.84  | 6.041     |
| 1460.82 ± 0.30 | 1460.8220 ± 0.0060 | $^{40}_{18}\text{Ar}$ | 601.78 | 2695.882  |
| 1460.82 ± 0.30 | 1460.8220 ± 0.0060 | $^{40}_{18}\text{Ar}$ | 601.78 | 2695.882  |
| 77.11 ± 0.12   | 77.010 ± 0.040     | $^{237}_{92}\text{U}$ | 227.92 | -6612.198 |