

**TABLE 3.3b** Linear attenuation coefficients of selected elements,  $\text{cm}^{-1}$ .

| Energy, kV | Chromium (Z = 24) | Cobalt (Z = 27) | Copper (Z = 29) | Iron (Z = 26) | Lead (Z = 82) | Magnesium (Z = 12) | Manganese (Z = 25) |
|------------|-------------------|-----------------|-----------------|---------------|---------------|--------------------|--------------------|
| 50         | 11.0              | 18.8            | 22.9            | 15.2          | 65.0          | 0.561              | 12.6               |
| 100        | 2.29              | 3.53            | 4.10            | 2.93          | 62.0          | 0.292              | 2.52               |
| 150        | 1.29              | 1.80            | 1.98            | 1.54          | 21.8          | 0.242              | 1.36               |
| 200        | 0.992             | 1.32            | 1.39            | 1.15          | 10.7          | 0.216              | 1.03               |
| 300        | 0.769             | 0.970           | 0.997           | 0.866         | 4.29          | 0.186              | 0.788              |
| 400        | 0.662             | 0.827           | 0.837           | 0.740         | 2.49          | 0.165              | 0.679              |
| 500        | 0.595             | 0.740           | 0.742           | 0.662         | 1.72          | 0.150              | 0.608              |
| 1000       | 0.426             | 0.525           | 0.524           | 0.471         | 0.798         | 0.109              | 0.435              |
| 2000       | 0.302             | 0.374           | 0.374           | 0.334         | 0.524         | 0.0768             | 0.309              |
| 4000       | 0.232             | 0.291           | 0.295           | 0.260         | 0.484         | 0.0548             | 0.238              |
| 6000       | 0.212             | 0.271           | 0.277           | 0.239         | 0.505         | 0.0467             | 0.219              |
| 10000      | 0.202             | 0.264           | 0.272           | 0.233         | 0.570         | 0.0399             | 0.211              |
| 15000      | 0.209             | 0.275           | 0.285           | 0.241         | 0.643         | 0.0374             | 0.217              |
| 30000      | 0.231             | 0.311           | 0.327           | 0.270         | 0.807         | 0.0369             | 0.243              |

**TABLE 3.3c** Linear attenuation coefficients of selected elements,  $\text{cm}^{-1}$ .

| Energy, kV | Molybdenum (Z = 42) | Nickel (Z = 28) | Niobium (Z = 41) | Selenium (Z = 34) | Silicon (Z = 14) | Silver (Z = 47) | Tantalum (Z = 73) |
|------------|---------------------|-----------------|------------------|-------------------|------------------|-----------------|-------------------|
| 50         | 69.9                | 21.5            | 55.0             | 18.0              | 1.00             | 96.7            | 71.4              |
| 100        | 11.1                | 3.96            | 8.83             | 3.03              | 0.428            | 15.3            | 69.7              |
| 150        | 4.26                | 1.96            | 3.44             | 1.30              | 0.338            | 5.60            | 24.4              |
| 200        | 2.47                | 1.40            | 2.00             | 0.827             | 0.298            | 3.11            | 12.2              |
| 300        | 1.41                | 1.03            | 1.16             | 0.548             | 0.254            | 1.63            | 5.01              |
| 400        | 1.06                | 0.865           | 0.883            | 0.448             | 0.226            | 1.17            | 3.02              |
| 500        | 0.897               | 0.769           | 0.756            | 0.389             | 0.205            | 0.967           | 2.16              |
| 1000       | 0.593               | 0.543           | 0.500            | 0.269             | 0.149            | 0.621           | 1.08              |
| 2000       | 0.422               | 0.389           | 0.357            | 0.192             | 0.105            | 0.440           | 0.730             |
| 4000       | 0.357               | 0.304           | 0.300            | 0.155             | 0.0757           | 0.378           | 0.674             |
| 6000       | 0.351               | 0.283           | 0.294            | 0.150             | 0.0660           | 0.379           | 0.702             |
| 10000      | 0.367               | 0.279           | 0.308            | 0.152             | 0.0576           | 0.404           | 0.785             |
| 15000      | 0.402               | 0.291           | 0.336            | 0.162             | 0.0550           | 0.445           | 0.890             |
| 30000      | 0.479               | 0.331           | 0.398            | 0.189             | 0.0555           | 0.538           | 1.11              |