

The below formulas, used in the calculator, are derived from USDOE site and national numbers from the Paducah Gaseous Diffusion Plant (PGDP) and other uranium enrichment facilities, as well as two "kinds" of natural uranium, one with the theoretical equilibrium ratio of U234/U238 (1.000054949), the other with the "common" ratio, from Cherdyntsev's book, out of the generally mineralogical stable uranium samples he used (U234/U238 = 0.992 +/- 0.138).

$$\text{U-234 } \mu\text{Ci/gTotalU} = 0.499 \times \textit{Enrichment}^{1.04}$$

$$\text{U-235 } \mu\text{Ci/gTotalU} = 0.0216 \times \textit{Enrichment}^{1.00}$$

$$\text{U-238 } \mu\text{Ci/gTotalU} = 0.336 \times \left(\frac{100 - \textit{Enrichment}}{100} \right)^{1.058}$$