Supplementary Electronic material for post-column IDA

\[
MF_s = C_s f_s d_s \frac{A_{w_s}}{A_{w_p}} \cdot \frac{A_{65}^{sp}}{A_{63}^{sp}} \cdot \frac{R_m - R_s}{(1-R_m \cdot R_s)}
\]

Measured isotope ratio (63/65) on each point of the chromatogram

\[
\begin{align*}
MF_s &= 20.84 \text{ ng mL}^{-1} \cdot 0.2 \text{ mL min}^{-1} \cdot 1 \text{ g ml}^{-1} \cdot \frac{63.54}{64.92} \cdot \frac{99.71}{69.15} \cdot \frac{(\text{ICP-MS}) - 0.003}{(1 - \text{(ICP-MS)} \cdot 0.446)}
\end{align*}
\]

\textbf{Figure:} A) Copper signal of the isotopically enriched bovine SOD1 obtained in the laboratory. B) Mass flow chromatogram after the Isotope dilution equation was applied
Species-specific-IDA

\[ C_s = C_{sp} \frac{m_{sp}}{m_s} \frac{M_s}{M_{sp}} \frac{A_{sp}^b}{A_s^a} \left( R_m - R_{sp} \right) \frac{R_m}{1 - R_m + R_s} \]

Cs (ng mL\(^{-1}\)) = 166.97 ng g\(^{-1}\) \( \cdot \frac{0.1 \text{ g}}{2.5 \text{ g}} \cdot \frac{63.55}{64.90} \cdot \frac{98.44}{69.15} \cdot \frac{1.075 - 0.016}{1 - 1.075 \cdot 0.446} \)

In this case, the isotope ratios (63/65) are measured by integration of the Cu peak at both masses and the peak area iserted into the equation.