$ORIGIN := 1$

$A := \begin{pmatrix} 10.0311 \\ 11.6834 \end{pmatrix}$ $B := \begin{pmatrix} 2940.46 \\ 3816.44 \end{pmatrix}$ $C := \begin{pmatrix} -35.93 \\ -46.13 \end{pmatrix}$

$P := 1.013$ $z := \begin{pmatrix} 0.30 \\ 0.70 \end{pmatrix}$ $y := \begin{pmatrix} 0.66 \\ 0.34 \end{pmatrix}$

$$\gamma(x) := \left| \begin{array}{l} \gamma_1 \leftarrow \exp\left[\dfrac{2.05}{\left(1 + \dfrac{1.367\, x_1}{x_2}\right)^2}\right] \\ \gamma_2 \leftarrow \exp\left[\dfrac{1.50}{\left(1 + \dfrac{0.732\, x_2}{x_1}\right)^2}\right] \\ \begin{pmatrix} \gamma_1 \\ \gamma_2 \end{pmatrix} \end{array} \right.$$

$T := \sum_{i=1}^{2} \left[z_i \cdot \left(\dfrac{B_i}{A_i - \ln(P)} - C_i \right) \right] = 360.035$ $VF := 0.4$ $x := \begin{pmatrix} 0.06 \\ 0.94 \end{pmatrix}$

Given

$$P \cdot y_1 = \exp\left(A_1 - \frac{B_1}{C_1 + T}\right) \cdot x_1 \cdot \gamma(x)_1$$

$$P \cdot y_2 = \exp\left(A_2 - \frac{B_2}{C_2 + T}\right) \cdot x_2 \cdot \gamma(x)_2$$

$x_1 + x_2 = 1$

$y_1 + y_2 = 1$

$$VF = \frac{z_1 - x_1}{y_1 - x_1}$$

$$\begin{pmatrix} x \\ T \\ VF \end{pmatrix} := \text{Find}(x, T, VF)$$

$$x = \begin{pmatrix} 0.07 \\ 0.93 \end{pmatrix} \qquad T = 346.874 \qquad VF = 0.39$$