

Vapor Liquid Equilibria

Compute the vapor-liquid equilibria for a system of methanol and ethanol at 1 atm and plot the $x - y$ diagram for this system. The following Antoine's coefficients may be used:

Compound	B.Pt.	A	B	C
Methanol	337.8 K	5.20409	1581.341	-33.50
Ethanol	351.5 K	5.24677	1598.673	-46.424

Antoine Equation:

$$\log_{10}(P) = A - \frac{B}{T + C}$$

where P is the vapor pressure in *bars* and T is the temperature in K .

Compute the relative volatility at each point chosen to generate the $x - y$ diagram. How close is each value as compared to the average value.