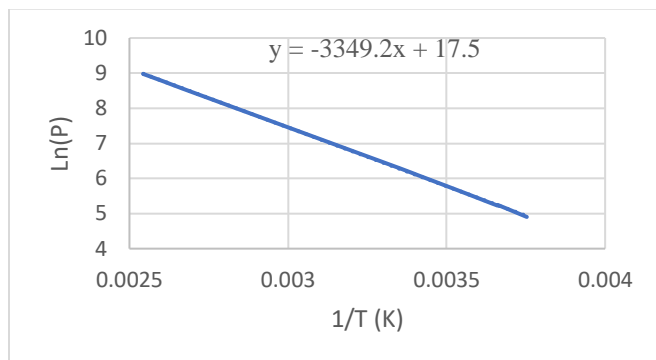


The Clausius-Clapeyron Equation: Enthalpy of Vaporization

1. Use the following plot of $\ln(P)$ vs $1/T$ to answer the questions. The pressures have units of mmHg.



- What is the pressure at a temperature of 34.7°C ?
- What is the pressure, in mmHg, at the normal boiling point?
- What is the enthalpy of vaporization, ΔH_{vap} ?
- Use the Clausius-Clapeyron equation to determine the enthalpy of vaporization of diethyl ether under the following conditions: The vapor pressure is 135 mmHg at -6.7°C , and 438 mm Hg at 19.9°C .