

Conclusion: The experiment of studying the heterogeneous equilibrium between two phases in a two-substance system, such as the chloroform–acetone system, is an important example for understanding the behavior of liquid mixtures. We showed that the chloroform–acetone system suffers from a strong negative deviation from Raoult's law, resulting in a maximum boiling azeotrope. We also analyzed phase diagrams of binary systems, allowing us to visualize changes in composition and temperature during distillation processes.