

Binary and Ternary Mixtures of 2-Isopropoxypropane, 2-Propanol and N,N-Dimethylacetamide at 101.3Kpa: A Case Study

Islam Muhammad, 이문용<sup>†</sup>  
Yeungnam University  
(mynlee@ynu.ac.kr<sup>†</sup>)

Cosmo-RS model has claimed to be the efficient predictive model for selectivity and solubility of undetermined solvents. It has considered to be an intelligent approach to predict initial data rather than having tiresome experiments. To ensure the validity of Cosmo-RS base Cosmotherm module this study has been conducted. Predicted Vapor Liquid Equilibrium for 2-isopropoxypropane, 2-propanol and n,n-dimethylacetamide at 101.3kPa for different temperature with Biovia Cosmotherm 2020 and compared it with experimental data reported. Cosmotherm has been used for finding the vapor pressure of each component for in depth study. Outcomes are found to be near to experimental data but not very precise in accuracy. This module can be used for initial prediction which could be a good start for experimental setup or simulation.