Low-Pressure Vapor-Liquid Equilibrium Measurement for n-Alkane + 1-Alcohol System at 101.325 kPa

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Vapor-liquid phase equilibrium data are important for design and operation of distillation process and other separation processes. In this study, a circulation type phase equilibrium measurement apparatus was used for measurement of vapor-liquid equilibrium of the binary system composed of n-alkanes and 1-alcohols at 101.325 kPa. Each phase was sampled by syringe and analyzed by gas chromatography. The measured data were correlated by the Peng-Robinson equation of state using Wong-Sandler mixing rule. The calculation result showed a good agreement with experimental data.