Isothermal Vapor-Liquid Equilibria for n-Pentane + tert-Butanol System near the Critical Region

정승호, 신문삼, 김화용*
서울대학교
(hwayongk@snu.ac.kr*)

Isothermal Vapor-Liquid Equilibrium for the binary Alkane+Alkanol system (n-Pentane, tert-Butanol) were measured near the critical temperatures using a two-phase recirculating equipment which has the view cell. Critical pressure was determined from the critical opalescence phenomenon of the mixtures. This mixture represents nonideal behavior due to the association of alkanol. The experimental data were correlated by three methods such as the PRSV(Peng-Robinson-Stryjek-Vera) EOS combined with the NRTL model and the Wong-Sandler mixing rule, the Multi-Fluid Nonrandom Lattice Fluid with Hydrogen Bonding(MF-NLF-HB), and SAFT EOS. Also, calculating the critical points is executed.