

### Vapor-Liquid Equilibrium for Alkane Alkanol System near the Critical Region

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Isothermal Vapor-Liquid Equilibrium data for the binary Alkane+ Alkanol system (specially n-Pentane, iso-butanol) were measured near the critical temperatures using a two-phase recirculating equipment with the view cell. Critical pressure was also determined from the critical opalescence of the mixtures. This mixture is shown very nonideal behavior due to the association of alkanol. The experimental data were correlated by the PRSV(Peng-Robinson-Stryjek-Vera) EOS combined with (the NRTL model and the Wong-Sandler mixing rule) and Multi-Fluid Nonrandom Lattice Fluid with (Hydrogen Bonding(MF-NLF-HB)) and SAFT(Statistical associating Fluid Theory) EOS. We also calculated the critical points.