Vapor-Liquid Equilibria for CO_2 - Nonionic Surfactant System at Elevated Pressures

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Surfactants systems, especially micelle and microemulsion systems, was highly non-ideal behavior due to the hydrogen bonding and hydrophobic interaction. In this work, Vapor-Liquid Equilibria for the binary CO_2 + alkyl polyoxyethylene alcohol surfactant systems were investigated at elevated pressures. We have examined the thermodynamic consistency of Lattice Fluid equation of state and compared with Cubic equation of state and Statistical associating fluid theory(SAFT).