Vapor-liquid equilibria of the difluoromethane (HFC-32) + isobutene System

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Thermodynamic properties of the mixtures such as vapor liquid equilibria are important to decide the optimal compositions of the mixtures and to evaluate the performance of the refrigeration cycles. In this work, binary vapor liquid equilibrium data were measured for the difluoromethane (HFC-32) + isobutene system at temperatures from 303.15 K to 333.15 K. These experiments were carried out with a circulating-type apparatus with on-line gas chromatograph analysis. The experimental data were correlated well by the Peng-Robinson equation of state using the Wong-Sandler mixing rules.