

Measurement of Vapor-Liquid Equilibria for the Binary Mixture of Difluoromethane(HFC-32)
+ Propylene(R-1270)

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Isothermal vapor-liquid equilibria data for the binary mixture of difluoromethane (HFC-32) + propylene (R-1270) at five equally spaced temperatures between 273.15 and 313.15K were measured by using a circulation-type equilibrium apparatus. The experimental data were correlated with the Peng-Robinson equation of state combined with the Wong-Sandler mixing rule. Good agreement between experimental and calculated data was confirmed.

The experimental azeotropic points of this mixture in temperature range above were measured and compared with calculated ones, which were obtained by using the simple equation derived from the fundamental equation of phase equilibrium combined with NRTL activity coefficient model. The result indicated that there was a small difference between experimental and calculated azeotropic points.