Isothermal Vapor-Liquid Equilibria for the binary systems of Cyclohexane + Ethylene glycol monopropyl ether (C3E1) and Ethylene glycol isopropyl ether (iC3E1)

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Isothermal vapor liquid equilibria for the binary system of cyclohexane with ethylene glycol monopropyl ether and ethylene glycol isopropyl ether were measured in a circulating water bath at 303.15, 318.15, and 333.15K. The apparatus was in-house designed and manufactured. Consistency testing of the apparatus was done by comparing the measured vapor pressures to the calculated vapor pressures from the Antoine equation. The measured systems were correlated with a Peng-Robinson equation of state (PR) combined with Wong-Sandler mixing rule for the vapor phase, and NRTL, UNIQUAC, and Wilson activity coefficient models for the liquid phase. All the measured systems showed good agreement with the correlation results.