

## **Vapor-liquid equilibrium data concerning refrigerant systems (R3110+R365mfc)**

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In ORC, the knowledge of phase diagram of working fluid is essential. In this paper isothermal vapor liquid equilibrium data are presented for the R3310 + R365mfc system. Measurement were performed for seven isotherms (three below and four above the critical temperature of C<sub>4</sub>F<sub>10</sub>) ranging from 333.26 to 441.61 K, with pressure ranging from 0.2016 to 3.0927 MPa. The measurements were undertaken using a “static-analytic” type apparatus, with sampling of the equilibrium phases via capillary samples (ROLSI<sup>TM</sup>). The maximum uncertainties in the measurements were within  $\pm 0.02$  K, 0.0003 MPa and less than  $\pm 0.004$  for temperature, pressure, and equilibrium phase mole fractions, respectively. The full set of isothermal vapor-liquid equilibrium data were correlated with the Peng-Robinson equation of state, incorporating the Mathias-Copeman alpha function, with the Wong-Sandler mixing rule utilizing the NRTL activity coefficient model.