

High-Pressure Vapor-Liquid Equilibria for the CO₂ + *N*-Heptane + *N*-Nonane and CO₂ + *N*-Heptane + *N*-Decane Systems

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This work emphasizes the experimental determination of the vapor-liquid equilibria for the CO₂ + *n*-heptane + *n*-nonane, CO₂ + *n*-heptane + *n*-decane systems from 323 to 423 K. The equilibrium data of these ternary systems were measured on a static apparatus constituted by a stainless steel view-cell connected on-line to a gas chromatograph (Agilent, GC 6890) via a ROLSI sampler-injector. The solutes were loaded to the cell on a solvent free-basis of 1 : 1.46 and 1 : 1.13 (v:v) for the *n*-heptane : *n*-nonane and *n*-heptane / *n*-decane, respectively. These results were correlated using the Peng-Robinson Equation of State with the Wong-Sandler mixing rule.

[1] O. Elizalde-Solis, L.A. Galicia-Luna, S.I. Sandler, J.G. Sampayo-Hernandez, Vapor-liquid equilibria and critical points of the CO₂ + 1-hexanol and CO₂ + 1-heptanol systems, *Fluid Phase Equilibria*, 210 (2003) 215-227.