

### High-Pressure Phase Behavior of Poly(L-lactic acid) + Carbon Dioxide + Dichloromethane Ternary Mixture System

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In this study, the high pressure phase behavior of poly(L-lactic acid) ( $M_w = 312,000$ ), dichloromethane and carbon dioxide ternary mixtures was studied using a variable volume view cell at temperatures ranging from 313.15 K to 363.15 K and pressures of up to 300bar as functions of temperature and the CO<sub>2</sub>/dichloromethane mass ratio at poly(L-lactic acid) weight fractions of 1.0, 2.5 and 3.0%. The experimental results were correlated with the hybrid equation of state for the CO<sub>2</sub>-polymer system using the van der Waals one-fluid mixing rule with three adjustable binary interaction parameters.