

Kinetic and Thermodynamic Characteristics of Fractional Precipitation of (+)-Dihydromyricetin

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The study was conducted to investigate the effect of temperature and time on the yield of (+)-dihydromyricetin in the fractional precipitation. In addition, kinetic and thermodynamic studies of this fractional precipitation process were performed. When the experimental data were applied to the kinetic model, the Johnson-Mehl-Avrami-Kolmogorov (JMAK) model was acceptable for fractional precipitation of (+)-dihydromyricetin. The activation energy E_a of fractional precipitation was determined to be negative. The Gibbs free energy change, enthalpy change, and entropy change were also determined to be negative. These results indicate that this fractional precipitation process is exothermic in nature and proceeds at lower temperatures. Acknowledgment

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