

Solid-Liquid Equilibria for Enhancement of Separating Succinic Acid

김은혜, 강정원[†]

고려대학교

(jwkang@korea.ac.kr[†])

Succinic acid (butanedioic acid) is one of the most promising organic acids which can be used for various fields such as foods, cosmetics, and pharmaceuticals. Recently, succinic acid has produced by using biomass instead of petroleum chemicals. It is important how to separate succinic acid from by-products with the highest yield and purity. There are several methods to perform purification process. In this work, salting-out crystallization and acidification were investigated for purifying succinic acid. As a preliminary research, salt screening was conducted by molecular modeling method that calculated solid-liquid equilibria, and then experiments were performed. According to the results of experiments, solubility of succinic acid in salt solution was decreased, and a succinic acid yield was increased by adding the additives. The results were compared with the data from the preliminary work.