Improvement of Fractional Precipitation Process for the Purification of (+)-Dihydromyricetin

임민경, 김진현*
공주대학교
(jinhyun@kongju.ac.kr*)

Fractional precipitation is a simple, efficient method for purifying (+)-dihydromyricetin extracted from biomass. However, the fractional precipitation process has been inherently problematic due to the lengthy precipitation time that is required. An improved fractional precipitation process could significantly reduce the precipitation time by increasing the surface area available for precipitation. Ion exchange resin Amberlite IR 120H was used to increase the surface area, and the optimal surface area per working volume (i.e. volume of reaction solution) (S/V) for achieving the highest purity and yield of (+)-dihydromyricetin possible was found to be 0.428 mm^{-1}. This improved pre-purification process serves to minimize solvent usage and the size and complexity of the high performance liquid chromatography operation required for (+)-dihydromyricetin purification.