

Purification process of highly purified succinic acid from fermentation broth

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This study regards the purification process development to produce the highly purified succinic acid from the fermentation broth produced by recombinant microbiology which is capable of the mass production of succinic acid. Recently interest has focused on the biological production of succinic acid as an important industrial fermentation process. Fermentation broth used in this study was cultured by *Mannheimia succinicproducing* MBEL 55E. However, in the production of succinic acid by fermentation, the separation process for succinic acid should be needed due to many impurities in fermentation broth. Thus, to be cost effective, the separation process requires removal of cells and protein like impurities, and polishing of the free acid to its required purity. For the development of the more effective purification process for succinic acid, a reactive extraction method has been proposed to be as an effective primary separation step from fermentation broth. And then, pretreated samples were further purified by the crystallization was conducted at adjusting the pH. This work was supported by the Genome-based Integrated Bioprocess Project of the Ministry of Science and Technology.