

Studies on anaerobic batch and continuous fermentations of *Mannheimia succiniciproducens* MBEL55E for succinic acid production

정유철, 최보경, 송효학, 이상엽*, 장호남
한국과학기술원 생명화학공학과
(leesy@kaist.ac.kr*)

Intensive and extensive researches have focused on producing succinic acid through a microbial fermentation due to dramatic increase in oil price and environmental burdens caused by the chemical process. Although a few of researchers have reported that some bacteria can produce succinic acid as a major product from glucose under anaerobic conditions, it is not in commercial use yet because of low yield and productivity. In this study, we examined the effects of fermentation types on the succinic acid yield and productivity using *Mannheimia succiniciproducens* MBEL55E, known as one of the best succinic acid producers. The fermentations were carried out in batch and continuous modes, respectively. With the result, we expect that the continuous process may help to acquire the cost-effective succinic acid production. Acknowledgement : This work was supported by the Genome-based Integrated Bioprocess Project of the Ministry of Science and Technology. Further supports by the LG Chem Chair Professorship, IBM SUR program, Brain Korea 21 project, and by the KOSEF through the Center for Ultramicrochemical Process Systems are appreciated.