Kinetic Model of Batch Fermentation for Succinic Acid Production by *Mannheimia succiniciproducens*

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Kinetic models are suggested for the production of succinic acid from glucose by *Mannheimia succiniciproducens* MBEL55E. Experimental data collected from a series of batch fermentations with different initial glucose concentrations were used to estimate parameters and also to validate the models proposed. The optimal values of the parameters were measured by minimizing the discrepancy between the model predictions and corresponding experimental data. In all cases, the model simulation matched well with the experimental observations, which made it possible to elucidate the fermentation characteristics of *M. succiniciproducens* during succinic acid production from glucose. These models can be employed for the development and optimization of bio-based succinic acid production processes. [This work was supported by the Genome-based Integrated Bioprocess Project of the Ministry of Science and Technology through the Korea Science and Engineering Foundation (KOSEF). Further supports by the LG Chem Chair Professorship and by the Center for Ultramicrochemical Process Systems (KOSEF) are appreciated.]