A Genome-scale Model of *C. acetobutylicum* ATCC 824 and Flux Blance Analysis

이종민, 윤홍석, 이상엽*
KAIST
(joungmin@kaist.ac.kr*)

Clostridium acetobutylicum is an attention-grabbing bacterium in that it produces several solvents, especially butan-1-ol. We reconstructed a genome-scale metabolic network of *C. acetobutylicum* ATCC 824 which comprises 502 reactions and 479 metabolites. Then, we carried out flux balance analysis using both linear and non-linear approach which is a modification of previous studies. Here, we present metabolic features and feasibilities of *C. acetobutylicum*, and hypothetical annotations derived during the reconstruction of the network. [This work was supported by the Korea-Australia Collaborative Research Project on the Development of Sucrose-Based Bioprocess Platform (N02071165) from the Korean Ministry of Knowledge Economy. Further support by LG Chem Chair Professorship and Microsoft are appreciated.]