In silico improvement of organisms using flux sum of metabolites

김현욱, 김태용, 이상엽* 한국과학기술원 (ehukim@kaist.ac.kr*)

This study presents an *in silico* method for improving strain performance on the basis of flux sum (Φ) of metabolites. The flux sum method first screens key metabolites that eventually increase production yield of useful substance by defining the metabolite utilization of an organism as flux sum with respect to the production of the target substance and perturbing the flux sum. Then, the method deletes and/or amplifes genes associated with aforementioned screened key metabolites.

[This work was supported by the Korean Systems Biology Project of the Ministry of Science and Technology (M10309020000-03B5002-00000). Further supports by the LG Chem Chair Professorship and KOSEF through the CUPS are appreciated].