

Fed-batch culture of *Escherichia coli* for L-valine production based on *in silico* flux response analysis

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We have previously developed an 100% genetically defined *Escherichia coli* strain which is able to produce 7.55 g/L L-valine with 20 g/L glucose, resulting in an impressively high yield of 0.378 g L-valine per g glucose. In this study, the development of a fed-batch fermentation process based on *in silico* flux response analysis was carried out. The results obtained here clearly demonstrate that the trade-off between L-valine and biomass formation should be optimized specifically towards L-valine production.

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