

RESEARCH PAPERS

通过通量平衡分析计算经验和真实维持系数

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摘要 The stoichiometric matrix of a simplified metabolic network in *Bacillus Subtillis* was constructed from the flux balance equations, which were used for reconciliation of the measured rates and determination of the inner metabolic rates. Thus more reliable results of the true and empirical maintenance coefficients were obtained. The true maintenance coefficient is linearly related to the specific growth rate and changes with the P/O ratio. The measured biomass yield of adenosine triphosphate(ATP) is also linearly related to the P/O ratio.

关键词 [maintenance coefficient](#) [flux balance analysis](#) [metabolic network](#) [biomass yield](#)

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Calculation of Empirical and True Maintenance Coefficients by Flux Balance Analysis

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Abstract The stoichiometric matrix of a simplified metabolic network in *Bacillus Subtillis* was constructed from the flux balance equations, which were used for reconciliation of the measured rates and determination of the inner metabolic rates. Thus more reliable results of the true and empirical maintenance coefficients were obtained. The true maintenance coefficient is linearly related to the specific growth rate and changes with the P/O ratio. The measured biomass yield of adenosine triphosphate(ATP) is also linearly related to the P/O ratio.

Key words [maintenance coefficient](#); [flux balance analysis](#); [metabolic network](#); [biomass yield](#)

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