

Continuous production of dicarboxylic acid by immobilized pseudomonas aeruginosa cells

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摘要

Abstract

Treatment of *Pseudomonas aeruginosa* with 3% (v/v) Tween 80 resulted in a 16-fold increase in the yield of conversion of n-pentadecane to the corresponding dioic acid, tridecane 1,13-dicarboxylic acid (DC-15). However, this conversion process was inhibited by high concentrations of DC-15. To avoid this product inhibition, a continuous process with immobilized cells was performed, and the results showed that the DC-15 yield was four-fold higher than in the case of batch type DC-15 production. The continuous process used in this study is adaptable to large-scale production of DC-15.