

Process models of enzymatic enantioselective conversion of poorly water soluble solids

PhD-student: Anders Wolff

Promotor: Prof.Dr. J.J. Heijnen

Supervisor: Dr. Adrie J.J. Straathof, Dr. J.A. Jongejan

Institute: Delft University of Technology, Department of Biotechnology

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Description

In this work the enzymatic enantioselective conversion of poorly-water soluble solid compounds was studied from a process point of view.

$$t_{\text{pro}} = \frac{0.5c_{A,0}^{\text{C,RS}}}{\langle -r_A^R \rangle} \approx \frac{\frac{1}{\langle K_C^S a^S \rangle} \left[1 + E + \frac{2}{\tau_{\text{enz}}^R \langle k_L^{\text{RS}} a^{\text{RS}} \rangle} \right] + E \tau_{\text{enz}}^R + \frac{2E}{\langle k_L^{\text{RS}} a^{\text{RS}} \rangle}}{\frac{c_A^*}{0.5c_{A,0}^{\text{C,RS}}} \left[\frac{1}{\tau_{\text{enz}}^R \langle K_C^S a^S \rangle} + \frac{E}{1+U} \right]}$$

Dissertation

Process models of enzymatic enantioselective conversion of poorly water soluble solids suspended in water or dissolved in water-cosolvent mixture. PhD thesis, Delft University of Technology, 1997. <http://resolver.tudelft.nl/uuid:7ad2fe0c-d088-45bb-b5c4-0dd4d056eaab>

Publications from the dissertation

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3. A. Wolff, L. Zhu, V. Kielland, A.J.J. Straathof, J.A. Jongejan and J.J. Heijnen, Simple dissolution-reaction model for enzymatic conversion of suspension of solid substrate, [Biotechnol. Bioeng. 56 \(1997\) 433-440](#).
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