

Improvement in Xylitol Production from Sugarcane Bagasse Hydrolysate Achieved by the Use of a Repeated-Batch Immobilized Cell System

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Candida guilliermondii cells were immobilized in Ca-alginate beads and used for xylitol production from concentrated sugarcane bagasse hydrolysate during five successive fermentation batches, each lasting 48 hours. The bioconversion efficiency of 53.2%, the productivity of $0.50 \text{ g/l} \times \text{h}$ and the final xylitol concentration of 23.8 g/l obtained in the first batch increased to 61.5%, $0.59 \text{ g/l} \times \text{h}$ and 28.4 g/l, respectively, in the other four batches (mean values), with variation coefficients of up to 2.3%.