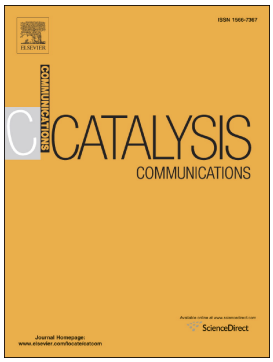

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Microbiological bio-reduction of prochiral carbonyl compounds by antimycotic agent Boni Protect

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ABSTRACT

The selective properties of the fungus *Aureobasidium pullulans*, in the antifungal agent Boni Protect, were investigated in the fermentative bioreduction of selected carbonyl compounds. Catalyzed by oxidoreductases contained in the microorganism *Aureobasidium pullulans* highly enantioselective biotransformation of prochiral ketones provides the secondary alcohols when the reaction is done in the presence of specific additives. *Aureobasidium pullulans* has also proved to be an effective bioreagent in the reduction of α- and β-keto esters. Optically pure hydroxy esters were obtained under fermentation conditions without the use of additives.

Keywords: biocatalysis; microbiological reduction; stereochemistry; antifungal agent; *Saccharomyces cerevisiae*; *Aureobasidium pullulans*