Abstract

Preparation of pure enantiomers is very important part of chemical synthesis of industrially and pharmaceutically useful compounds. In recent years traditional chemical synthesis is replaced by biotransformations. Biotransformation means the use of isolated enzymes, enzymatic systems or whole cells in catalysis of chemical reactions. In comparison with chemical synthesis it has certain advantages. In this work the activity of yeast strains *Saccharomyces uvarum* K8, *Saccharomyces cerevisiae* K12, *Torulopsis azyma* K43, *Torulopsis sphaerica* K46 and *Candida tropicalis* K49, K51 a K52 in catalysis of reduction 6-bromo-2-tetralone, 7-hydroxy-2-tetralone and 7-methoxy-2-tetralone was studied. Products of these reductions are used in preparation of pharmaceutical drugs.

Suitable conditions for biotransformations were found and it was proved that the yeast strains *Saccharomyces uvarum* K8 and *Candida tropicalis* K52 are able to produce 2-tetralones with ee greater than 90% with conversion 100% after four-hour biotransformation.

This thesis is written in Czech.