NEW CHEMO-ENZYMATIC APPROACHES FOR THE SYNTHESIS OF (*R*)- AND (*S*)-BUFURALOL

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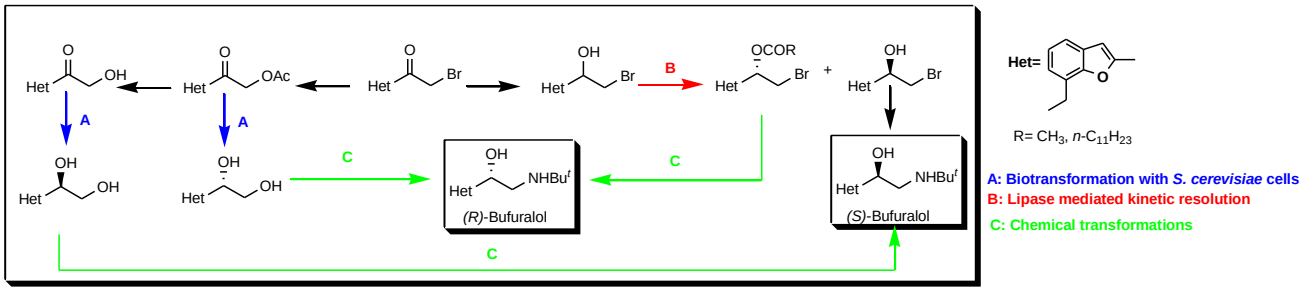

Abstract

Both enantiomers of bufuralol are pharmaceutically important molecules. While the (*S*)-isomer with higher β-blocking activity is recommended for the hypertension treatment, the (*R*)-enantiomer can be used as marker of hepatic activity. In this paper two new alternative approaches are described for their chemo-enzymatic synthesis, providing both highly enantiomerically enriched stereoisomers of the target molecule (*ee* 96-98%). One of them is based on the baker's yeast mediated stereoselective biotransformation of α-substituted ketones, the other one on the lipase mediated kinetic resolution of the racemic bromoethanol.

Acknowledgments

This work was supported by a grant of the Romanian National Authority for Scientific Research, CNDI-UEFISCDI, project PN-II-PT-PCCA-2011-3.1-1268. BN thanks to support from the *Collegium Talentum* Research Program.