Claims

1. A method of increasing the proportion of an enantiomer of undecavertol in an enantiomeric mixture of undecavertol, the method comprising contacting the enantiomeric mixture of undecavertol with an alcohol dehydrogenase (ADH) and an ADH-cofactor.

2. The method of claim 1, wherein the ADH-cofactor is selected from NADPH, NADH, quinoid cofactors, zinc or a combination of one or more thereof.

3. The method of any preceding claim, wherein the method further comprises contacting the ADH-cofactor with an ADH-cofactor regeneration system.

4. The method of claim 3, wherein the ADH-cofactor regeneration system is a substrate-coupled regeneration system, for example using acetone or isopropanol as a co-substrate.

5. The method of claim 3, wherein the ADH-cofactor regeneration system is an enzyme-coupled regeneration system, for example comprising an NADPH oxidase, an NADH oxidase, iron (III) porphyrine, a laccase, a lactate dehydrogenase, a glutamate dehydrogenase, a formiate dehydrogenase (FDH), a glucose dehydrogenase (GDH), a glucose-6-phosphate dehydrogenase (G6PDH), a phosphite dehydrogenase (PDH) or a combination thereof.

6. The method of any preceding claim, wherein the ratio of *(R)*-enantiomers to *(S)*-enantiomers in the enantiomeric mixture of undecavertol prior to contacting with the ADH and ADH-cofactor ranges from 45:55 to 55:45.

7. The method of any preceding claim, wherein the enantiomeric mixture of undecavertol prior to contacting with the ADH and ADH-cofactor is a racemic mixture (rac-undecavertol).

8. The method of any preceding claim, wherein the method results in a product having an enantiomeric excess equal to or greater than 94 %, for example equal to or greater than 96 %.

9. The method of any preceding claim, wherein the method results in a product having an enantiomeric excess of *(R)*-enantiomer equal to or greater than 94 %, for example equal to or greater than 96 %.

10. The method of any preceding claim, wherein the contacting step occurs for a period of time ranging from about 30 minutes to about 3 days.

11. The method of any preceding claim, wherein the contacting step occurs at a temperature ranging from about 20°C and about 40°C.

12. An enantiomeric mixture of undecavertol, the mixture having an enantiomeric excess equal to or greater than 94 %, for example equal to or greater than 96 %.

13. The enantiomeric mixture of claim 12, wherein the mixture has an enantiomeric excess of the *(R)*-enantiomer.

14. Use of the enantiomeric mixture of claim 12 or 13 as a fragrance.