

Title (en)  
METHOD FOR THE PRODUCTION OF CHIRAL, SECONDARY ALCOHOLS

Title (de)  
VERFAHREN ZUR HERSTELLUNG VON CHIRALEN, SEKUNDÄREN ALKOHOLEN

Title (fr)  
PROCEDE POUR PRODUIRE DES ALCOOLS SECONDAIRES CHIRAUX

Publication  
**EP 1725674 A1 20061129 (DE)**

Application  
**EP 05707624 A 20050225**

Priority  
• EP 2005001977 W 20050225  
• AT 4712004 A 20040318

Abstract (en)  
[origin: WO2005095628A1] Disclosed is a method for producing chiral, secondary alcohols of formula (I), wherein A represents an aromatic, heterocyclic, or alicyclic ring or a ring system with 4 to 20 C atoms, n represents 0, 1, 2, 3, 4, or 5, R represents halogen, OH, an O-protective group, NO<sub>2</sub>, N,N-R<sub>2</sub>,R<sub>3</sub> amine, R<sub>2</sub> and R<sub>3</sub> representing C<sub>1</sub>-C<sub>6</sub> alkyl, phenyl, or benzyl, N,N-R<sub>2</sub>,R<sub>3</sub>-amino-C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> alkoxycarbonyl, or CN, and R<sub>1</sub> represents N,N-R<sub>2</sub>,R<sub>3</sub> amine, N,N-R<sub>2</sub>,R<sub>3</sub>-amino-C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>12</sub> alkyl, C<sub>1</sub>-C<sub>6</sub>-haloalkyl, C<sub>1</sub>-C<sub>4</sub> alkoxycarbonyl, C<sub>1</sub>-C<sub>6</sub> alkoxy-C<sub>1</sub>-C<sub>6</sub> alkyl, or a C<sub>2</sub>-C<sub>5</sub> alkylene radical that forms a ring system along with the A radical. According to the inventive method, a) a ketone of formula (II) is optionally reduced to the corresponding racemic alcohol of formula (III) by means of an aliphatic C<sub>1</sub>-C<sub>6</sub> alcohol in the presence of a transition metal catalyst and a base, and b) the alcohol of formula (III) is reacted to a mixture of (R) ester of formula (IV), wherein R<sub>4</sub> represents H or C<sub>1</sub>-C<sub>5</sub> alkyl, and (S) alcohol of formula (I) in the presence of an esterification catalyst and an acyl donor, whereupon the (S) alcohol is isolated from the reaction mixture by means of crystallization or distillation according to the aggregate state thereof.

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Citation (search report)  
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