

Title (en)

METHOD FOR PRODUCING CHIRAL MERCAPTO AMINO ACIDS

Title (de)

VERFAHREN ZUR HERSTELLUNG VON CHIRALEN MERCAPTOAMINOS UREN

Title (fr)

PROCEDE DE PRODUCTION DE MERCAPTO-AMINOACIDES CHIRAUX

Publication

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Application

EP 04797894 A 20041115

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Abstract (en)

[origin: WO2005061469A1] The invention relates to a method for producing chiral mercapto amino acids of formula (I) wherein R1, R2 and R3 can represent hydrogen, C6-C12 aryl, C1-C6-alkyl-C6-C12-aryl, C6-C12-aryl-C1-C6-alkyl, C1-C18-alkyl or C2-C18-alkenyl, R2 and R3 forming a saturated or unsaturated ring. According to said method, a) an oxo compound of formula (II), wherein X represents a leaving group, is reacted in the presence of ammonia or ammonium hydroxide and a sulfide, optionally under phase transfer catalysis or addition of a solubiliser, with a ketone or an aldehyde of formula (III) wherein R4 and R5 can represent a C1-C12 alkyl radical or a C6-C20 aryl radical or one of the two radicals H, or R4 and R5 together form a C4-C7 ring, to form the compound of formula (IV), that b) reacts with HCN to form the corresponding nitrile, whereupon c) the crystallised nitrile is converted, by selective hydrolysis by means of a mineral acid, into the corresponding amide of formula (VI), and d) is then converted into the corresponding chiral amide of formula (VI*) by means of an L amidase or a chiral dissociating acid, whereupon by reaction with an acid, the desired chiral mercapto amino acid of formula (I) is obtained, or e) first the reaction with an acid is carried out, and then the conversion into the chiral mercapto amino acid takes place.

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