

Title (en)

METHOD FOR PRODUCING OPTICALLY ACTIVE CYANOHYDRINS AND THEIR CORRESPONDING ACIDS

Title (de)

VERFAHREN ZUR HERSTELLUNG VON OPTISCH AKTIVEN ZYANHYDRINEN

Title (fr)

PROCEDE POUR PRODUIRE DES CYANOHYDRINES OPTIQUEMENT ACTIVES ET LEURS ACIDES CORRESPONDANTS

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Application

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Abstract (en)

[origin: WO03005010A2] The invention relates to a method for producing optically active cyanohydrins and the corresponding alpha - hydroxycarboxylic acids, starting from an aldehyde, hydrogen cyanide and an optically active vanadyl-salen catalyst, whereby the reaction mixture is reacted at a temperature of between 0 and 60 DEG C. Between 0.8 and 10 equivalents of hydrogen cyanide and between 0.0001 and 0.05 equivalents of vanadyl-salen catalyst in relation to the aldehyde, (concentration of between 0.5 and 4 mol/litre solvent), are preferably used. After said reaction the optically active cyanohydrin or after an acid hydrolysis the corresponding optically active alpha -hydroxycarboxylic acid can be isolated with a surplus of enantiomers. The vanadium catalyst used in the invention contains a salen ligand, whereby the ratio salen ligand: vanadium (IV) in the catalyst ranges between 1.4:1 and 10:1.

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