

Title (en)

METHOD FOR THE OXIDATION OF METHYL GROUPS IN ALIPHATIC HYDROCARBONS USING AN ENZYME SYSTEM WITH THE ACTIVITY OF A MONOOXYGENASE

Title (de)

VERFAHREN ZUR OXIDATION VON METHYLGRUPPEN IN ALIPHATISCHEN KOHLENWASSERSTOFFEN UNTER VERWENDUNG EINES ENZYMSYSTEMS MIT DER AKTIVITÄT EINER MONOOXYGENASE

Title (fr)

PROCÉDÉ D'OXYDATION DE GROUPES MÉTHYLE DANS DES HYDROCARBURES ALIPHATIQUES PAR UTILISATION D'UN SYSTÈME ENZYMATIQUE AYANT L'ACTIVITÉ D'UNE MONO-OXYGÉNASE

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Abstract (en)

[origin: WO2009037216A1] The invention relates to an enzymatic method for the oxidation of methyl groups in aliphatic hydrocarbons and to novel proteins and enzyme mixtures with the enzymatic activity of a monooxygenase. According to the invention, preferably compounds with methyl groups are oxidised in branched-chain, aliphatic hydrocarbons, which are essentially acyclic compounds and/or aliphatic compounds having functional groups or compounds with methyl groups at the aliphatic hydrocarbons which are mono- or disubstituted at the C2 atom, wherein the substituents can be the same or different. The invention preferably relates to a biotechnological process for the oxidation of methyl groups in the branched-chain structures, wherein microorganisms which have or produce the desired monooxygenase activity are cultivated in an aqueous system and are converted into the corresponding target products.

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