Title (en)

METHOD FOR PRODUCING (METH)ACRYLIC ESTERS OF N-HYDROXYALKYLATED LACTAMS

Title (de)

KATALYTISCHES VERFAHREN ZUR HERSTELLUNG VON (METH)ACRYLSÄUREESTERN VON N-HYDROXYALKYLIERTEN LACTAMEN

Title (fr)

PROCÉDÉ CATALYTIQUE DE PRODUCTION D'ESTERS D'ACIDE (MÉTH)ACRYLIQUE DE LACTAMES N-HYDROXYALKYLÉS

Publication

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Application

EP 08708848 A 20080211

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Abstract (en)

[origin: WO2008098885A1] The invention relates to a method for producing (meth)acrylic esters (F) of N-hydroxyalkylated lactams (L) by esterifying annular N-hydroxyalkylated lactams (L) with (meth)acrylic acid (S) in the presence of at least one metal salt of C₁-C₁₀ alkanolates (A) or transesterifying it with at least one (meth)acrylic ester (D) by adding the metal salt of C₁-C₁₀ alkanolates (A), which is used as the catalyst, in the absence of solvents and completely at the start of the reaction. In said formula (L), R¹ represents C₁-C₅ alkylene or C₂-C₂₀ alkylene, interrupted by one or more oxygen and/or sulfur atoms and/or one or more substituted or unsubstituted imino groups and/or by one or more cycloalkyl-, -(CO)-, -O(CO)O-, -(NH)(CO)O-, -O(CO)(NH)-, -O(CO)- or -(CO)O groups, wherein the mentioned groups can be substituted by aryl, alkyl, aryloxy, alkyloxy, heteroatoms and/or heterocycles, with the proviso that R¹ must not comprise any atom other than a carbon atom directly adjacent to the lactam carbonyl group. R² represents C₁-C₂₀ alkylene, C₅-C₁₂ cycloalkylene, C₆-C₁₂ arylene or C₂-C₂₀ alkylene, interrupted by one or more oxygen and/or sulfur atoms and/or one or more substituted or unsubstituted imino groups and/or by one or more cycloalkyl-, -(CO)-, -O(CO)O-, -(NH)(CO)O-, -O(CO)(NH)-, -O(CO)- or -(CO)O groups, wherein the mentioned groups can be substituted by aryl, alkyl, aryloxy, alkyloxy, heteroatoms and/or heterocycles, or R²-OH represents a group of the formula -[X_i]_k-H, k is a number of 1 to 50 and Xi for any i = 1 to k can be independently selected from the group including -CH₂-CH₂-O-, -CH₂-CH₂-N(H)-, -CH₂-CH₂-CH₂-CH₂-N(H)-, -CH₂-CH(NH₂)-, -CH₂-CH(NHCHO)-, -CH₂-CH(CH₃)-O-, -CH(CH₃)-CH₂-O-, -CH₂-C(CH₃)₂-O-, -C(CH₃)₂-CH₂-O-, -CH₂-CH₂-CH₂-O-, -CH₂-CH₂-CH₂-CH₂-CH₂-O-, -CH₂-CHVin-O-, -CHVin-CH₂-O-, -CH₂-CHPh-O- und -CHPh-CH₂-O-, wherein Ph represents phenyl and Vin represents vinyl.

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