

Title (en)

METHOD FOR THE SYNTHESIS OF BIORESOURCED ACRYLIC ACID ESTERS

Title (de)

VERFAHREN ZUR SYNTHESE VON ACRYLSÄUREESTERN AUS BIOLOGISCHEN QUELLEN

Title (fr)

PROCEDE DE SYNTHESE D'ESTERS DE L'ACIDE ACRYLIQUE BIORESSOURCES

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Application

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Abstract (en)

[origin: WO2010010309A2] The invention relates to a method for the synthesis of an acrylic acid ester of formula $\text{CH}_2=\text{CH}-\text{COO}-\text{R}$ wherein R is an alkyl radical comprising between 1 and 18 carbon atoms and optionally comprising a heteroatom and nitrogen, characterised in that, in a first step, glycerol $\text{CH}_2\text{OH}-\text{CHOH}-\text{CH}_2\text{OH}$ is subjected to a dehydration reaction in the presence of an acid catalyst in order to obtain acrolein of formula $\text{CH}_2=\text{CH}-\text{CHO}$, then, in a second step, the acrolein thus formed is transformed by catalytic oxidation into acrylic acid $\text{CH}_2=\text{CH}-\text{COOH}$, then, in a third step, the acid from the second step is subjected to an esterification reaction by means of an alcohol ROH in which R has the abovementioned designation. The invention also relates to bioresourced esters produced according to the method and to the synthesised polymers, using said esters as polymerisation monomers or comonomers.

IPC 8 full level

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