

Title (en)

METHOD FOR PRODUCING 3-AMINO-4,4,4-TRIFLUOROCROTONIC ACID ESTERS

Title (de)

VERFAHREN ZUR HERSTELLUNG VON 3-AMINO-4,4,4-TRIFLUOROCROTONSÄUREESTERN

Title (fr)

PROCEDE DE PRODUCTION D'ESTERS D'ACIDE 3,AMINO-4,4,4-TRIFLUOROCROTONIQUE

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Application

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Abstract (en)

[origin: WO2004016579A1] The invention relates to a method for producing 3-amino-4,4,4-trifluorocrotonic acid esters of formula (I) or their E/Z isomers or tautomeric forms, whereby R<1> and R<2>, independent of one another, represent hydrogen, an optionally substituted linear C1-C4 alkyl radical or an optionally substituted benzyl radical, and R<3> represents methyl or ethyl. The inventive method is characterized in that: a) an alkyl trifluoroacetate is reacted with an alkyl acetate of formula CH₃-CO-OR<3> and with an alkali metal alcoholate to form an enolate of a trifluoroacetoacetic acid ester of formula (II), whereby M represents sodium or potassium, and R<3> has the aforementioned meaning, and afterwards; b) the alkali enolate of the trifluoroacetoacetic acid ester from step a) can, without further purification, directly react with an amine of formula NHR<1>R<2> in the presence of an acid to form 3-amino-4,4,4-trifluorocrotonic acid esters. This two-step method enables the production of 3-amino-4,4,4-trifluorocrotonic acid esters in high yields without resulting in the formation of significant byproducts.

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