METHOD FOR PREPARATION OF 2-(2,3-DIMETHYLPHENYL)-1-PROPANAL

The invention discloses a method for preparation of 2-(2,3-dimethylphenyl)-1-propanal from 1-bromo 2,3-dimethylbenzene and aceton, its use in perfumes and its use for the preparation of medetomidine.

Aromatic aldehydes are widely used as flavours and fragrances in cosmetics, perfumes, and numerous household products. Alpha, beta-unsaturated aromatic aldehydes, such as substituted cinnamic aldehydes, are known to have distinct fragrance and are therefore used in the perfume industry

WO 98/45237 A discloses certain aromatic aldehydes, a method for producing them starting from acetophenone acetals, their use as perfumes and their use as intermediates for the preparation of 3-arylpropanals. They have a musky fragrance.

The perfume and household product industry has a constant need for new perfumes with interesting, new and not yet available fragrances in order to increase the available choice of fragrances and to adapt the fragrances to the ever changing demand of fashion. Furthermore the respective substances need to be synthesized economically and with consistent quality. High purity and strong fragrances are desired. The present invention provides a new alpha, beta-unsaturated aromatic aldehyde, which has strong and interesting, aldehydic fragrance, intensely spicy and sweet, and an improved process for the production thereof.

In the following text,

halogen means F, Cl, Br or I, preferably Cl, Br or I;

"alkyl" means linear, branched, cyclic or cyclo alkyl, preferably it means the commonly accepted meaning linear or branched alkyl; if not otherwise stated. Examples of "alkyl" include methyl, ethyl, n-propyl, isopropyl, n-butyl, sec-butyl, tert-butyl, pentyl, hexyl, heptyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, norbornyl, adamantyl, and the like;

"cyclic alkyl" or "cyclo alkyl" are intended to include cyclo aliphatic, bicyclo aliphatic and tricycle aliphatic residues;

"alkane" means a linear, branched or cyclic alkane, preferably linear or branched alkane;

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Mukherjee-Müller et al., Helvetica Chimica Acta, 1977, 60, 1758-1780, discloses a process for the preparation of 2-(dimethylphenyl) propanaldehydes as a mixture of 3 unidentified isomers. The position of the methyl on the aromatic groups is unknown. These compounds are prepared by a rearrangement reaction in the presence of an acidic catalyst (sulfuric acid) from certain tricyclic alcohols.

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