

Title (en)
PRODUCTION OF FUEL ADDITIVES VIA SIMULTANEOUS DEHYDRATION AND SKELETAL ISOMERISATION OF ISOBUTANOL ON ACID CATALYSTS FOLLOWED BY ETHERIFICATION

Title (de)
HERSTELLUNG VON KRAFTSTOFFZUSÄTZEN ÜBER DIE SIMULTANE DEHYDRIERUNG UND SKELETTISOMERISIERUNG VON ISOBUTANOL AUF SÄUREKATALYSATOREN MIT NACHFOLGENDER VERETHERUNG

Title (fr)
PRODUCTION D'ADDITIFS POUR CARBURANT PAR DÉSHYDRATATION ET ISOMÉRISEMENT DE SQUELETTE SIMULTANÉES DE L'ISOBUTANOL SUR DES CATALYSEURS ACIDES SUIVIES D'UNE ÉTHÉRIFICATION

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Application
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Abstract (en)
[origin: WO2012084950A1] The present invention relates to a process for the production of fuel additives in which in a first step isobutanol is subjected to a simultaneous dehydration and skeletal isomerisation to make substantially corresponding olefins, having the same number of carbons and consisting essentially of a mixture of n-butenes and isobutene and in a second step the butene mixture is subjected to etherification, said process comprising: a)introducing in at least one reactor a stream (A) comprising at least 40wt% isobutanol, optionally an inert component, b)contacting said stream with at least one catalyst in said reactor(s) at conditions effective to simultaneously dehydrate and skeletal isomerise at least a portion of the isobutanol to make a mixture of n-butenes and iso-butene, c)removing the inert component if any, recovering from said reactor(s) a stream (B) comprising a mixture of n-butenes and isobutene, d)sending the stream (B) to at least one etherification reactor and contacting stream (B) with at least one catalyst in said etherification reactor(s), in the presence of ethanol and/or methanol, at conditions effective to produce ETBE and/or MTBE respectively, e)recovering from said etherification reactor a stream (E) comprising essentially ETBE and/or MTBE, unreacted butenes, heavies, optionally unreacted ethanol and/or methanol respectively, f)fractionating stream (E) to recover ETBE and/or MTBE.

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