Title (en)

METHOD FOR PRODUCING BUTENYL ETHERS

Title (de)

VERFAHREN ZUR HERSTELLUNG VON BUTENYLETHERN

Title (fr)

PROCEDE POUR LA PREPARATION DE BUTENYLETHERS

Publication

EP 0994837 A1 20000426 (DE)

Application

EP 98932124 A 19980605

Priority

- DE 19725872 A 19970618
- EP 9803368 W 19980605

Abstract (en)

[origin: DE19725872A1] The invention relates to a method for producing butenyl ethers of formula (I) CH3-CH=CH-CH2-OH by reacting butadiene or hydrocarbon flows containing butadiene with alcohols of formula (II) ROH at a high temperate and high pressure in the presence of transition metal complexes containing ligands or compounds of elements of group V of the periodic table of elements to form an isomeric mixtures consisting of butenyl ethers of formula (I) and butenyl ethers of formula (III) CH2=CH-CH(OR)-CH3 and by optionally isomerizing butenyl ethers of formula (III) into butenyl ethers of formula (I), wherein R stands for an alkyl or alkenyl group with 1 to 20 C atoms, an aryl group with 6 to 10 C atoms or an aralkyl group with 7 to 11 C atoms and the radicals R can be substituted by hydroxy or alkoxy groups, whereby a complex of a transition metals from group (VIII) of the periodic table of elements is used as a catalyst with ligands of formula (IV), wherein M stands for an iron, cobalt, nickel or ruthenium ion, X is a binding link in the form of an optionally substituted methylene or alkyl substituted silylene group, wherein n is 0 to 3, R<1> to R<4> mean independent from each other and also independent from each other in both cyclopentadiene radicals hydrogen or alkyl, cycloalkyl, aryl or aralkyl radicals with up to 40 C atoms or can be part of an isocyclic or heterocyclic ring system, wherein both cyclopentadiene radicals can be bridged by the radicals R<1> to R<4>, Y means nitrogen, arsenic, antimony or phosphorous and the radicals R<5> and R<6> mean independently and also independently from each other in both molecules of the sandwich complex hydrogen or alkyl, cycloalkyl, aryl or aralkyl groups with up to 24 C atoms.

IPC 1-7

C07C 41/06; C07C 41/32; C07C 43/15

IPC 8 full level

C07C 41/06 (2006.01); **C07C 41/32** (2006.01)

CPC (source: EP US)

C07C 41/06 (2013.01 - EP US); **C07C 41/32** (2013.01 - EP US)

Citation (search report)

See references of WO 9857915A1

Designated contracting state (EPC)

AT BE DE ES FI FR GB IT NL SE

DOCDB simple family (publication)

DE 19725872 A1 19981224; AU 8213498 A 19990104; CA 2286854 A1 19981223; EP 0994837 A1 20000426; US 6271423 B1 20010807; WO 9857915 A1 19981223

DOCDB simple family (application)

DE 19725872 A 19970618; AU 8213498 A 19980605; CA 2286854 A 19980605; EP 9803368 W 19980605; EP 98932124 A 19980605; US 44541099 A 19991208