Title (en)

DIRECT SYNTHESIS OF BIO-BASED ALKYL&FURANIC DIOL ETHERS, ACETATES, ETHER-ACETATES, AND CARBONATES

Title (de)

DIREKTSYNTHESE BIOBASIERTER ALKYL- UND FURANDIOLETHER, ACETATE, ETHER-ACETATE UND CARBONATE

Title (fr)

SYNTHÈSE DIRECTE D'ÉTHERS, D'ACÉTATES, D'ÉTHER-ACÉTATES ET DE CARBONATES D'ALKYLE ET DE DIOL FURANIQUE D'ORIGINE BIOLOGIQUE

Publication

EP 3083548 A4 20170830 (EN)

Application

EP 14871997 A 20141219

Priority

- US 201361918795 P 20131220
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- US 2014071512 W 20141219

Abstract (en)

[origin: WO2015095710A1] A method of preparing a glycol mono-ether or mono-acetate, or carbonate involving either one of two pathways from alkylene glycols, HMF or its reduction derivative products (i.e., FDM, bHMTHFs), is provided. In particular, according to one pathway, the alkylene glycol, HMF or FDM, bHMTHFs are reacted with a dialkyl carbonate in the presence of a deprotonating agent, in substantial absence of an extrinsic catalyst, to produce an ether, and subsequently reacting the ether with an acid base. According to the other pathway, alkylene glycols are reacted with an acetate donor in the presence of an acid, base, to generate an alkylene mono-acetate, and etherified with a carbonate in the presence of a deprotonating agent.

IPC 8 full level

C07C 67/08 (2006.01); **C07C 41/16** (2006.01); **C07C 43/13** (2006.01); **C07C 68/06** (2006.01); **C07C 69/16** (2006.01); **C07C 69/96** (2006.01); **C07D 307/12** (2006.01); **C07D 307/42** (2006.01)

CPC (source: EP KR)

C07C 41/16 (2013.01 - EP KR); **C07C 43/16** (2013.01 - KR); **C07C 67/08** (2013.01 - EP KR); **C07C 68/06** (2013.01 - EP KR); **C07C 69/16** (2013.01 - KR); **C07C 69/96** (2013.01 - KR); **C07D 307/12** (2013.01 - EP KR); **C07D 307/42** (2013.01 - EP KR)

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

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DOCDB simple family (application)

US 2014071512 W 20141219; AU 2014369062 A 20141219; BR 112016014267 A 20141219; CA 2934512 A 20141219; CN 201480071558 A 20141219; EP 14871997 A 20141219; JP 2016538518 A 20141219; KR 20167018951 A 20141219; MX 2016008061 A 20141219