

Title (en)

METHOD FOR OBTAINING SUGAR ALCOHOLS HAVING FIVE TO SIX CARBON ATOMS

Title (de)

VERFAHREN ZUR GEWINNUNG VON ZUCKERALKOHOLEN MIT FÜNF BIS SECHS KOHLENSTOFFATOMEN

Title (fr)

PROCÉDÉ D'OBTENTION D'ALDITOLS COMPORTANT CINQ À SIX ATOMES DE CARBONE

Publication

**EP 2906521 A1 20150819 (DE)**

Application

**EP 13792247 A 20131004**

Priority

- DE 102012109595 A 20121009
- DE 2013100350 W 20131004

Abstract (en)

[origin: WO2014056486A1] The invention relates to a method for obtaining a high yield of sugar alcohols containing five to six carbon atoms from cellulose-containing materials. In a first step the starting materials (e.g. microcrystalline cellulose, alpha-cellulose, wood and cellulose-containing residues, such as sugar cane bagasse or wood shavings) and an acid are brought into close contact with the substrates by an impregnation carried out in the liquid or gaseous phase. In addition, in a second step the starting materials covered with acid and dried are brought into contact by the action of mechanical energy such that the cellulose-containing materials are degraded into water-soluble products. Subsequently, in a third step, sugar alcohols having five to six carbon atoms are obtained in a high yield and in high selectivity from the water-soluble products in aqueous solution by hydrolytic hydration by means of a metal-containing catalyst under hydrogen pressure.

IPC 8 full level

**C07C 29/141** (2006.01); **C07C 29/145** (2006.01); **C07C 31/26** (2006.01); **C13K 1/02** (2006.01)

CPC (source: EP US)

**C07C 29/132** (2013.01 - EP US); **C07C 29/141** (2013.01 - EP US); **C07C 31/26** (2013.01 - EP US); **C07D 307/20** (2013.01 - EP US); **C13K 1/02** (2013.01 - EP US)

Citation (search report)

See references of WO 2014056486A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2014056486 A1 20140417**; BR 112015007740 A2 20180424; CA 2886756 A1 20140417; DE 102012109595 A1 20140424; EA 028770 B1 20171229; EA 201500401 A1 20151130; EP 2906521 A1 20150819; IN 2471DEN2015 A 20150904; JP 2015535855 A 20151217; JP 6212564 B2 20171011; MX 2015004447 A 20150624; US 2015274618 A1 20151001; US 9206098 B2 20151208

DOCDB simple family (application)

**DE 2013100350 W 20131004**; BR 112015007740 A 20131004; CA 2886756 A 20131004; DE 102012109595 A 20121009; EA 201500401 A 20131004; EP 13792247 A 20131004; IN 2471DEN2015 A 20150326; JP 2015535990 A 20131004; MX 2015004447 A 20131004; US 201314434416 A 20131004