

Title (en)

METHOD FOR ISOLATING AN ALKANOL FROM AN AQUEOUS BIOTRANSFORMATION MIXTURE

Title (de)

VERFAHREN ZUM ISOLIEREN EINES ALKANOLS AUS EINER WÄSSRIGEN BIOTRANSFORMATIONSBRÜHE

Title (fr)

PROCÉDÉ PERMETTANT D'ISOLER UN ALCANOL D'UNE SUSPENSION AQUEUSE DE BIOTRANSFORMATION

Publication

EP 2504302 A1 20121003 (DE)

Application

EP 10782283 A 20101124

Priority

- EP 09176942 A 20091124
- EP 2010068139 W 20101124
- EP 10782283 A 20101124

Abstract (en)

[origin: WO2011064259A1] The invention relates to the isolation of an alkanol from an aqueous biotransformation mixture, in that a) a first alkanol phase is obtained by means of distilling out an alkanol-water azeotrope from the aqueous biotransformation mixture and, if the azeotrope is a heteroazeotrope, phase separating the azeotrope and separating out an aqueous phase, b) a second alkanol phase is obtained by (i) liquid/liquid extracting the first alkanol phase using a solvent as an extracting agent, or (ii) azeotropic drying the first alkanol phase in the presence of the solvent as a carrier agent, and c) the second alkanol phase is fractionally distilled, producing a pure alkanol fraction. The biotransformation mixture is obtained, for example, by means of reducing an alkanol in the presence of an alcohol dehydrogenase. The method is adapted to the severe dilution of the products of value in the biotransformation mixture and works without long phase separation times when extracting by means of organic solvents.

IPC 8 full level

C07C 29/82 (2006.01); **C07C 29/86** (2006.01); **C07C 31/12** (2006.01); **C07C 31/125** (2006.01)

CPC (source: EP US)

C07C 29/80 (2013.01 - EP US); **C07C 29/82** (2013.01 - EP US); **C07C 29/86** (2013.01 - EP US); **C07B 2200/07** (2013.01 - EP US)

Citation (search report)

See references of WO 2011064259A1

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)

WO 2011064259 A1 20110603; CN 102712560 A 20121003; EP 2504302 A1 20121003; JP 2013511498 A 20130404;
US 2012285816 A1 20121115

DOCDB simple family (application)

EP 2010068139 W 20101124; CN 201080061923 A 20101124; EP 10782283 A 20101124; JP 2012539365 A 20101124;
US 201013511594 A 20101124