

Title (en)  
METHOD FOR EXTRACTING CARBOXYLIC ACIDS PRODUCED BY ANAEROBIC FERMENTATION FROM FERMENTABLE BIOMASS

Title (de)  
VERFAHREN ZUR EXTRAKTION VON CARBONSÄUREN, DIE DURCH ANAEROBE GÄRUNG VON VERGÄRBARER BIOMASSE PRODUZIERT WURDEN

Title (fr)  
PROCÉDÉ D'EXTRACTION D'ACIDES CARBOXYLIQUES PRODUITS PAR FERMENTATION ANAÉROBIE A PARTIR DE BIOMASSE FERMENTESCIBLE

Publication  
**EP 3325639 A1 20180530 (FR)**

Application  
**EP 16750960 A 20160713**

Priority  
• FR 1556976 A 20150723  
• FR 2016051815 W 20160713

Abstract (en)  
[origin: WO2017013335A1] The invention relates to a method for extracting carboxylic acids having between one and nine carbon atoms, produced by microorganisms (M) in a fermentation reactor (1) via anaerobic fermentation from fermentable biomass (S), said extraction being of the liquid-liquid type. The invention is characterized in that it includes at least the following steps: a) selecting an endogenous extraction solvent among at least one of the carboxylic acids produced during anaerobic fermentation, such that the number of carbon atoms in the solvent is not less than the number of carbon atoms in the carboxylic acid to be extracted, which carbon atoms have a density less than that of water and a boiling point greater than 70°C under normal pressure conditions; b) placing the selected extraction solvent in contact (2) with the fermentation medium outside the fermentation reactor (1) and without interrupting fermentation; c) separating (6) the ferment metabolites from the extraction solvent via at least one distillation; and d) collecting and storing or using (14) the ferment metabolites obtained in step c). The invention also relates to an apparatus for implementing the method.

IPC 8 full level  
**C12P 7/42** (2006.01); **C07C 29/86** (2006.01); **C12M 1/00** (2006.01); **C12N 1/28** (2006.01)

CPC (source: EP RU US)  
**C07C 51/48** (2013.01 - EP RU US); **C11B 3/006** (2013.01 - RU US); **C11B 3/12** (2013.01 - RU US); **C12M 47/10** (2013.01 - EP US); **C12P 7/42** (2013.01 - EP RU US)

C-Set (source: EP US)  
1. **C07C 51/48 + C07C 53/124**  
2. **C07C 51/48 + C07C 53/126**

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 2017013335 A1 20170126**; AU 2016296024 A1 20180208; AU 2016296024 B2 20190530; BR 112017028107 A2 20180828; CA 2991003 A1 20170126; CA 2991003 C 20210309; CN 107835856 A 20180323; EP 3325639 A1 20180530; FR 3039167 A1 20170127; FR 3039167 B1 20231110; MY 176577 A 20200817; RU 2695448 C1 20190723; US 11149230 B2 20211019; US 2017022446 A1 20170126

DOCDB simple family (application)  
**FR 2016051815 W 20160713**; AU 2016296024 A 20160713; BR 112017028107 A 20160713; CA 2991003 A 20160713; CN 201680040683 A 20160713; EP 16750960 A 20160713; FR 1556976 A 20150723; MY PI2017704850 A 20160713; RU 2018106637 A 20160713; US 201615213530 A 20160719