

Title (en)

SYSTEM FOR MANAGEMENT OF YEAST TO FACILITATE THE PRODUCTION OF ETHANOL

Title (de)

SYSTEM ZUR VERWALTUNG VON HEFE FÜR ERLEICHTERTE ETHANOLHERSTELLUNG

Title (fr)

SYSTÈME DE GESTION DE LEVURE POUR FACILITER LA PRODUCTION D'ÉTHANOL

Publication

EP 3004325 A1 20160413 (EN)

Application

EP 13885981 A 20130528

Priority

US 2013042927 W 20130528

Abstract (en)

[origin: WO2014193344A1] A system and method for managing an ethanologen for use in biorefinery is disclosed. The method for propagating ethanologen for use in the production of a fermentation product from biomass comprises the steps of providing a medium for propagation of ethanologen; supplying a first cell mass of ethanologen to the medium; supplying xylose to the medium as a carbon source for the ethanologen; and maintaining the medium comprising the first cell mass of ethanologen at a pH of between about 5.0 and 6.0 and at a temperature of between about 26 and About 37 degrees Celsius so that the first cell mass of ethanologen is propagated into a second cell mass of ethanologen. The second cell mass of ethanologen is larger than the first cell mass of ethanologen. The system for propagating ethanologen for use in the production of a fermentation product from biomass comprises a first stage comprising a first vessel configured to maintain a medium comprising ethanologen; a second stage comprising a second vessel configured to maintain a medium supplied from the first stage; a source of xylose to be provided to the medium as a carbon source for ethanologen in the first stage; and a source of xylose to be provided to the medium as a carbon source for the ethanologen in the second stage. The ethanologen has a first cell mass when supplied to the first stage and the ethanologen has a second cell mass when supplied from the first stage to the second stage and the ethanologen has a third cell mass when supplied from the second stage. The second cell mass is at least 200 times larger than the first cell mass. The third cell mass is at least 20 times larger than the second cell mass.

IPC 8 full level

C12N 1/18 (2006.01); **C12M 1/00** (2006.01); **C12N 1/16** (2006.01); **C12P 7/10** (2006.01)

CPC (source: EP)

C12M 21/12 (2013.01); **C12M 43/02** (2013.01); **C12N 1/18** (2013.01); **C12P 7/10** (2013.01); **Y02E 50/10** (2013.01)

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 2014193344 A1 20141204; BR 112015030015 A2 20170822; BR 112015030015 B1 20220329; BR 112015030015 B8 20230110;
CN 105637083 A 20160601; EP 3004325 A1 20160413; EP 3004325 A4 20170118

DOCDB simple family (application)

US 2013042927 W 20130528; BR 112015030015 A 20130528; CN 201380078548 A 20130528; EP 13885981 A 20130528