

Title (en)  
SYSTEM AND METHOD FOR TREATMENT OF BIOMASS FOR THE PRODUCTION OF BIOFUELS AND BIOCHEMICALS

Title (de)  
SYSTEM UND VERFAHREN ZUR BEHANDLUNG VON BIOMASSE ZUR HERSTELLUNG VON BIOKRAFTSTOFFEN UND BIOCHEMIKALIEN

Title (fr)  
SYSTÈME ET PROCÉDÉ DE TRAITEMENT DE BIOMASSE DESTINÉS À LA PRODUCTION DE BIOCARBURANTS ET DE PRODUITS BIOCHIMIQUES

Publication  
**EP 3383971 A1 20181010 (EN)**

Application  
**EP 16809328 A 20161202**

Priority

- US 201562263597 P 20151204
- US 201662362561 P 20160714
- EP 16193839 A 20161014
- EP 2016079657 W 20161202

Abstract (en)  
[origin: WO2017093526A1] A system and method to treat biomass to make bioproducts such as biofuels and biochemical is disclosed. The systems are configured to treat a liquid component separated from biomass to yield sugars available to form a fermentation product or bio-product. The system and method comprises treatment and separation of process streams (e.g. liquids, solids, etc.) to produce bioproducts such as fuel and biochemical as well as to recover/reuse and utilize content of process streams. Lignin is separated from the bioproduct stream (e.g. a solids component) forming a recovered bioproducts; efficient removal of lignin facilitates productive operation of the system. The system disclosed is configured to recover and recycle acid (e.g. phosphoric acid) used as a concentrated acid in the process to pre-treat biomass (for bioprocessing). The acid used in the process is recycled and recovered in order to establish economically attractive biorefinery to make bio-products from biomass (e.g. to reduce the cost of operation such as from supply of fresh acid). Concentrated acid used to pre-treat biomass may comprise about 90 to over 98 percent recovered acid (and 10 to less than 2 percent fresh acid). The recovery and recycle process for the acid (e.g. acid used to pre-treat biomass) may comprise one or more of the inventive concepts and features shown and described in the FIGURES and specification.

IPC 8 full level  
**C10G 3/00** (2006.01); **C12M 1/00** (2006.01); **C12P 19/00** (2006.01); **D21C 1/04** (2006.01); **D21C 3/04** (2006.01)

CPC (source: EP)  
**C10G 3/00** (2013.01); **C12M 21/12** (2013.01); **C12M 45/06** (2013.01); **C12M 47/00** (2013.01); **C12M 47/14** (2013.01); **C12P 7/10** (2013.01); **C12P 19/00** (2013.01); **C12P 19/02** (2013.01); **D21C 1/04** (2013.01); **D21C 3/04** (2013.01); **C10G 2300/1014** (2013.01); **C10G 2400/04** (2013.01); **C10G 2400/08** (2013.01); **C12P 2203/00** (2013.01); **Y02E 50/10** (2013.01); **Y02E 50/30** (2013.01); **Y02P 30/20** (2015.11)

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 2017093526 A1 20170608**; EP 3383971 A1 20181010

DOCDB simple family (application)  
**EP 2016079657 W 20161202**; EP 16809328 A 20161202