

Title (en)
COMBINED TANGENTIAL SHEAR HOMOGENIZING AND FLASHING APPARATUS HAVING A NON-UNIFORM ROTOR/STATOR GAP DIMENSION AND A PARAMETER RESPONSIVE TO A VARIABLE ROTOR/STATOR GAP DIMENSION

Title (de)
KOMBINIERTE TANGENTIALE SCHERHOMOGENISIERUNGS- UND BLINKVORRICHTUNG MIT UNEINHEITLICHER ROTOR-/STATORSPALTDIMENSION UND ANSPRECHENDER PARAMETER AUF EINE VARIABLE ROTOR-/STATORSPALTDIMENSION

Title (fr)
APPAREIL À COMBINAISON D'ÉVAPORATION ET D'HOMOGÉNÉISATION PAR CONTRAINTE TANGENTIELLE AYANT UNE DIMENSION D'INTERVALLE ROTOR/STATOR NON UNIFORME ET UN PARAMÈTRE SENSIBLE À UNE DIMENSION D'INTERVALLE DE ROTOR/STATOR VARIABLE

Publication
EP 2917329 A1 20150916 (EN)

Application
EP 13792825 A 20131106

Priority

- US 201261724581 P 20121109
- US 201261724587 P 20121109
- US 201261724590 P 20121109
- US 201261724594 P 20121109
- US 201261724598 P 20121109
- US 201261724602 P 20121109
- US 201261724612 P 20121109
- US 201261724620 P 20121109
- US 201313790223 A 20130308
- US 2013068614 W 20131106

Abstract (en)
[origin: WO2014074530A1] A combined tangential shear homogenizing and flashing apparatus for destructuring pretreated biomass comprises a housing connectable to a source of pressurized pretreated biomass, and a stator and a rotor mounted within the housing. The stator and rotor being confrontationally disposed and spaced apart by a predetermined uniformly dimensioned axial gap. In use, rotational movement of the rotor with respect to the stator imparts a tangential shear to a volume of pretreated biomass. The tangential shear homogenizes the volume of pretreated biomass while a pressure difference causes a partial phase separation of the homogenized biomass into vapor and liquid phases such that the pretreated biomass undergoes at least a three-fold total volumetric increase and a weight transition to a vapor of at least one percent (1%).

IPC 8 full level
C12M 1/33 (2006.01); **B01F 7/00** (2006.01); **C08H 8/00** (2010.01); **C12M 1/00** (2006.01); **C13K 1/02** (2006.01)

CPC (source: EP)
B01F 27/271 (2022.01); **B01F 27/2713** (2022.01); **B01F 27/2714** (2022.01); **B01F 27/2721** (2022.01); **B02C 7/08** (2013.01); **C08H 8/00** (2013.01); **C12M 45/02** (2013.01); **C12M 45/04** (2013.01); **C12M 45/05** (2013.01)

Citation (search report)
See references of WO 2014074533A1

Cited by
CN107860624A

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 2014074530 A1 20140515; AU 2013341351 A1 20150514; AU 2013341352 A1 20150514; AU 2013341352 A8 20150521; AU 2013341354 A1 20150514; AU 2013341355 A1 20150514; BR 112015010585 A2 20180424; BR 112015010586 A2 20170711; BR 112015010588 A2 20170711; BR 112015010589 A2 20180424; CA 2890877 A1 20140515; CA 2890881 A1 20140515; CA 2890925 A1 20140515; CA 2890927 A1 20140515; CN 104769096 A 20150708; CN 104769097 A 20150708; CN 104769098 A 20150708; CN 104781388 A 20150715; EP 2917327 A1 20150916; EP 2917328 A1 20150916; EP 2917329 A1 20150916; EP 2917330 A1 20150916; IN 3743DEN2015 A 20150918; IN 3744DEN2015 A 20150918; IN 3746DEN2015 A 20150918; IN 3747DEN2015 A 20150918; JP 2015536144 A 20151221; JP 2016500004 A 20160107; JP 2016500005 A 20160107; JP 2016500006 A 20160107; WO 2014074531 A1 20140515; WO 2014074533 A1 20140515; WO 2014074534 A1 20140515

DOCDB simple family (application)
US 2013068611 W 20131106; AU 2013341351 A 20131106; AU 2013341352 A 20131106; AU 2013341354 A 20131106; AU 2013341355 A 20131106; BR 112015010585 A 20131106; BR 112015010586 A 20131106; BR 112015010588 A 20131106; BR 112015010589 A 20131106; CA 2890877 A 20131106; CA 2890881 A 20131106; CA 2890925 A 20131106; CA 2890927 A 20131106; CN 201380058545 A 20131106; CN 201380058572 A 20131106; CN 201380058574 A 20131106; CN 201380058579 A 20131106; EP 13792823 A 20131106; EP 13792824 A 20131106; EP 13792825 A 20131106; EP 13824223 A 20131106; IN 3743DEN2015 A 20150501; IN 3744DEN2015 A 20150501; IN 3746DEN2015 A 20150501; IN 3747DEN2015 A 20150501; JP 2015541859 A 20131106; JP 2015541860 A 20131106; JP 2015541861 A 20131106; JP 2015541862 A 20131106; US 2013068612 W 20131106; US 2013068614 W 20131106; US 2013068615 W 20131106