

Title (en)

SUBSTRATE DECOMPOSITION FOR BIOGAS PLANTS IN A MIXING AND COMBI-HYDROLYSIS TANK

Title (de)

SUBSTRATAUFSCHLUSS FÜR BIOGASANLAGEN IN EINEM ANMISCH- UND KOMBIHYDROLYSEBEHÄLTER

Title (fr)

DÉSAGRÉGATION DE SUBSTRAT POUR DES INSTALLATIONS À BIOGAZ DANS UNE CUVE DE MÉLANGEAGE ET D'HYDROLYSE COMBINÉE

Publication

EP 2954038 A1 20151216 (DE)

Application

EP 13820741 A 20131209

Priority

- DE 102012222589 A 20121207
- EP 2013075993 W 20131209

Abstract (en)

[origin: WO2014087024A1] The invention relates to a method and a device for optimising the acceptance, conditioning, hydrolysis, disintegration and methane enrichment of organic matter for feeding biogas fermenters or other processes for the treatment or conversion of organic substances, and also for improving viscosity, in which specifically required, technological or biological procedures are combined in one mixing and combi-hydrolysis tank. The device has one or more descending walls for separating the gas chamber in the top part of the tank, one descending wall of which separates the gas chamber of the tank opening from the other tank, and optionally a further descending wall, the lower end of which is permanently located above the lowest fluid level and which separates the gas chamber of the pump chamber from the other tank. The device optionally has an ultrasonic module for treating a recirculated material from an advanced fermentation stage or from the device according to claim 1, and also a gas supply system in the lower zones of the feed and/or pump chamber for hydrogenous gases, produced in the process or supplied externally, for stimulating methane formation by means of hydrogen-oxidising archaea.

IPC 8 full level

C12M 1/107 (2006.01); **C12M 1/00** (2006.01); **C12M 1/06** (2006.01)

CPC (source: EP US)

C12M 21/04 (2013.01 - EP US); **C12M 23/02** (2013.01 - EP US); **C12M 23/34** (2013.01 - EP US); **C12M 23/40** (2013.01 - EP US);
C12M 27/02 (2013.01 - EP US); **C12M 29/08** (2013.01 - EP US); **C12M 29/26** (2013.01 - EP US); **C12M 41/44** (2013.01 - US);
C12M 45/03 (2013.01 - US); **C12M 45/07** (2013.01 - EP US); **C12P 5/023** (2013.01 - US); **Y02E 50/30** (2013.01 - EP)

Citation (search report)

See references of WO 2014087024A1

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 2014087024 A1 20140612; BR 112015013325 A2 20170711; CA 2894508 A1 20140612; CL 2015001548 A1 20160212;
DE 102012222589 A1 20140612; EP 2954038 A1 20151216; US 2022073847 A1 20220310

DOCDB simple family (application)

EP 2013075993 W 20131209; BR 112015013325 A 20131209; CA 2894508 A 20131209; CL 2015001548 A 20150605;
DE 102012222589 A 20121207; EP 13820741 A 20131209; US 201314649812 A 20131209