

Title (en)

PROCESS AND APPARATUS FOR HYDROTHERMAL CARBONISATION OF BIOMASS

Title (de)

PROZESS UND APPARAT ZUR HYDROTHERMALEN KARBONISIERUNG VON BIOMASSE

Title (fr)

PROCEDE DE CARBONISATION HYDROTHERMALE D'UNE BIOMASSE, ET DISPOSITIF S'Y RAPPORTANT

Publication

EP 3146026 A1 20170329 (FR)

Application

EP 15798565 A 20151029

Priority

- FR 1460617 A 20141104
- IB 2015058360 W 20151029

Abstract (en)

[origin: WO2016071808A1] The invention relates to a method for heating a biomass moving along an industrial treatment line comprising an inlet (1) for the incoming biomass, a heating means (4), and a treatment station (5). According to the invention, a fraction of the biomass heated by the heating means (4) is returned along a return branch (R) to a mixing station (2) upstream of the heating means (4) so as to form, together with the incoming biomass, a mixture having a temperature above the temperature of the incoming biomass, the heated biomass fraction being removed at an outlet (51) of the treatment station (5).

IPC 8 full level

C10L 5/44 (2006.01); **C10L 5/46** (2006.01)

CPC (source: CN EP US)

C10B 1/02 (2013.01 - US); **C10B 47/00** (2013.01 - US); **C10B 53/02** (2013.01 - US); **C10B 57/06** (2013.01 - US);
C10L 9/086 (2013.01 - CN EP US); **C10L 2290/02** (2013.01 - CN EP US); **C10L 2290/06** (2013.01 - CN EP US);
C10L 2290/10 (2013.01 - CN EP US); **C10L 2290/141** (2013.01 - CN EP US); **C10L 2290/30** (2013.01 - CN EP US);
C10L 2290/46 (2013.01 - CN EP US); **C10L 2290/50** (2013.01 - CN EP US); **Y02E 50/10** (2013.01 - CN EP US);
Y02E 50/30 (2013.01 - CN EP US)

Citation (search report)

See references of WO 2016071808A1

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)

FR 3027914 A1 20160506; **FR 3027914 B1 20180504**; AU 2015341447 A1 20170119; AU 2015341447 B2 20200227;
CN 106536691 A 20170322; CN 106536691 B 20200714; EP 3146026 A1 20170329; EP 3287510 A1 20180228; EP 3287510 B1 20190814;
US 10287505 B2 20190514; US 2017233659 A1 20170817; WO 2016071808 A1 20160512

DOCDB simple family (application)

FR 1460617 A 20141104; AU 2015341447 A 20151029; CN 201580039403 A 20151029; EP 15798565 A 20151029; EP 17195045 A 20151029;
IB 2015058360 W 20151029; US 201515318371 A 20151029