

Title (en)
METHOD AND APPARATUS FOR FIXED BED GASIFICATION

Title (de)
VERFAHREN UND VORRICHTUNG ZUR FESTBETTVERGASUNG

Title (fr)
PROCEDE ET EQUIPEMENT DE GAZEIFICATION EN LIT FIXE

Publication
EP 2798045 A1 20141105 (FR)

Application
EP 12824699 A 20121227

Priority
• FR 1162516 A 20111229
• FR 2012053086 W 20121227

Abstract (en)
[origin: WO2013098525A1] A co-current (14) fixed bed gasifier (14) intended to convert biomass (26) into synthesis gas and ash with the aid of a gasification agent, said gasifier (14) comprising a reactor body, said reactor body comprising an upper part (22) and a lower part (23), into which gasifier (14) the biomass (26) is introduced via an inlet duct (1) located in the top of the upper part (22) of the body (22) of the gasifier (14); the synthesis gas is evacuated via a synthesis gas evacuation duct (12), and the ash is evacuated in the bottom part of the lower part (23) of the reactor body through an ash evacuation duct (10), and said gasifier (14) comprising, from top to bottom, - a biomass (26) pyrolysis area (16), - a biomass (26) oxidation area (17), - a reduction area (18), - a grid (8) comprising a plurality of openings through which the ash passes to be evacuated, and said gasifier (14) comprising means of introducing a gasification agent, such as air or oxygen, said gasifier (14) being characterised in that said means of introducing the gasification agent comprise: a cone (13) for diffusing the gasification agent located at the top of the oxidation area (17) of the gasifier (14), or above said oxidation area (17), means of injecting (19, 29) the gasification agent located in the oxidation area (17) of the gasifier (14). Figure 1.

IPC 8 full level
C10J 3/02 (2006.01); **C10J 3/26** (2006.01); **C10J 3/30** (2006.01); **C10J 3/36** (2006.01); **C10J 3/66** (2006.01)

CPC (source: EP US)
C10J 3/26 (2013.01 - EP US); **C10J 3/30** (2013.01 - EP US); **C10J 3/32** (2013.01 - EP US); **C10J 3/36** (2013.01 - EP US); **C10J 2200/152** (2013.01 - EP US); **C10J 2200/158** (2013.01 - EP US); **C10J 2300/0916** (2013.01 - EP US); **C10J 2300/0956** (2013.01 - EP US); **Y02P 20/145** (2015.11 - EP US)

Citation (search report)
See references of WO 2013098525A1

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

DOCDB simple family (publication)
WO 2013098525 A1 20130704; CA 2859480 A1 20130704; EP 2798045 A1 20141105; FR 2985265 A1 20130705; FR 2985265 B1 20131227; JP 2015509993 A 20150402; US 2015137041 A1 20150521; US 9255231 B2 20160209

DOCDB simple family (application)
FR 2012053086 W 20121227; CA 2859480 A 20121227; EP 12824699 A 20121227; FR 1162516 A 20111229; JP 2014549521 A 20121227; US 201214368119 A 20121227