

Title (en)

METHOD FOR THE WET-CHEMICAL TRANSFORMATION OF BIOMASS BY HYDROTHERMAL CARBONIZATION

Title (de)

VERFAHREN ZUR NASSCHEMISCHEN UMWANDLUNG VON BIOMASSE DURCH HYDROTHERMALE KARBONISIERUNG

Title (fr)

PROCÉDÉ DE TRANSFORMATION CHIMIQUE PAR VOIE HUMIDE DE LA BIOMASSE PAR CARBONISATION THERMOHYDRAULIQUE

Publication

EP 2134821 A1 20091223 (DE)

Application

EP 07856078 A 20071211

Priority

- DE 2007002227 W 20071211
- DE 102007014429 A 20070322

Abstract (en)

[origin: WO2008113309A1] The present invention relates to a method for the conversion of biomass into solid matter having higher energy density, particularly into coal, humus or peat. Using said method, organic matter is reduced in water from the biomass by forming a suspension and part of the suspension to be converted is heated to a reaction temperature and is converted under elevated pressure by hydrothermal carbonization into the solid matter having higher energy density. The method is characterized in that the conversion takes place in a reaction volume that is below the surface of the earth. The method ensures consistency of product quality and greater economic efficiency of the process.

IPC 8 full level

C10L 5/44 (2006.01); **C10L 9/00** (2006.01); **C10L 9/02** (2006.01); **C10L 9/08** (2006.01)

CPC (source: EP US)

C10L 5/44 (2013.01 - EP US); **C10L 9/00** (2013.01 - EP US); **C10L 9/02** (2013.01 - EP US); **C10L 9/08** (2013.01 - EP US);
C10L 9/086 (2013.01 - EP US); **Y02E 50/10** (2013.01 - EP US); **Y02E 50/30** (2013.01 - EP US)

Citation (search report)

See references of WO 2008113309A1

Cited by

EP3470457A1; WO2019072431A1; US11952494B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

RS

DOCDB simple family (publication)

WO 2008113309 A1 20080925; AR 071145 A1 20100602; AU 2007349712 A1 20080925; AU 2007349712 B2 20111117;
BR PI0721461 A2 20140325; CA 2685420 A1 20080925; CL 2008000834 A1 20080704; CN 101688139 A 20100331;
DE 112007003523 A5 20100311; EP 2134821 A1 20091223; PE 20090169 A1 20090225; RU 2009138929 A 20110427;
US 2010101142 A1 20100429; UY 30965 A1 20081031; ZA 200906001 B 20100428

DOCDB simple family (application)

DE 2007002227 W 20071211; AR P080101115 A 20080317; AU 2007349712 A 20071211; BR PI0721461 A 20071211; CA 2685420 A 20071211;
CL 2008000834 A 20080320; CN 200780052294 A 20071211; DE 112007003523 T 20071211; EP 07856078 A 20071211;
PE 2008000519 A 20080319; RU 2009138929 A 20071211; US 45032307 A 20071211; UY 30965 A 20080318; ZA 200906001 A 20090831