

Title (en)

PROCESS AND APPARATUS FOR PURIFYING PROCESS WATER IN A HYDROTHERMAL CARBONIZATION PROCESS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR REINIGUNG VON PROZESSWASSER IN EINEM HYDROTHERMALEN KARBONISIERUNGSPROZESS

Title (fr)

PROCÉDÉ ET DISPOSITIF POUR L'ÉPURATION D'EAU DE PROCÉDÉ DANS UN PROCESSUS DE CARBONISATION HYDROTHERMALE

Publication

EP 2885249 A1 20150624 (DE)

Application

EP 13755983 A 20130815

Priority

- DE 102012107471 A 20120815
- EP 2013067067 W 20130815

Abstract (en)

[origin: WO2014027059A1] Hydrothermal carbonization allows the production of charcoal from biomass. However, this biomass can at the beginning of the carbonization process contain constituents which are not suitable for carbonization. Apart from large contaminants such as broken glass, etc., these constituents are, in particular, sand and clay, with the clay not being able to be removed by simple filtration methods because of its fineness. The invention therefore provides for process water to be taken from the reaction space and subjected to purification in a sedimentation filter after the carbonization reaction has commenced and the clay is no longer held in the biomass. The process water is then sprayed back into the reaction space in order to keep the biomass/process water mixture in motion and avoid sedimentation of the clay at the bottom of the reaction space.

IPC 8 full level

C02F 1/38 (2006.01); **C02F 11/10** (2006.01); **C10L 9/08** (2006.01)

CPC (source: EP US)

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C02F 1/38 (2013.01 - EP US); **C02F 11/10** (2013.01 - EP US); **C10G 1/06** (2013.01 - EP); **C10L 5/445** (2013.01 - EP);
C10L 9/086 (2013.01 - EP US); **C02F 2103/00** (2013.01 - US); **C02F 2301/026** (2013.01 - EP); **C02F 2303/24** (2013.01 - EP);
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Y02E 50/10 (2013.01 - EP); **Y02E 50/30** (2013.01 - EP); **Y02W 10/40** (2015.05 - EP US)

Citation (search report)

See references of WO 2014027059A1

Citation (examination)

US 2005077234 A1 20050414 - YOSHIDA HIDETO [JP], et al

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

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