

Title (en)

Method for manufacturing treated biocomponent for biofuels and treated biocomponent for biofuels

Title (de)

Verfahren zur Herstellung einer behandelten Biokomponente für Biokraftstoffe und behandelte Biokomponente für Biokraftstoffe

Title (fr)

Procédé de fabrication de biocomposant traité pour biocarburants et biocomposant traité pour biocarburants

Publication

**EP 2679655 A1 20140101 (EN)**

Application

**EP 12183858 A 20120911**

Priority

PL 39965412 A 20120625

Abstract (en)

A method for manufacturing of biocomponent for biofuels in a process of catalytic depolymerisation, wherein fragmented municipal and/or organic waste constituting a batch material, is dried and then processed in a block of separation and evaporation (108) connected with a mixing turbine (110) wherein catalytic depolymerisation is conducted, and then the depolymerised material is distilled in a distiller (109) to obtain the biocomponent, wherein part of the obtained biocomponent is used to supply a combustion-electric generator (111). The catalytic depolymerisation is conducted in a presence of sodium aluminosilicate as a catalyst, wherein the readings of sensors corresponding to the respective catalytic depolymerisation process blocks (108-111) are monitored using a technological process control block (112), and, if any irregularities, resulting from insufficient amount of catalyst, are found, an automatic catalyst feeder (113) is activated to apply a batch of catalyst in the amount of from 5 kg to 35 kg per 1000 L of biocomponent in the process, after which the monitoring of individual blocks (108-111) operation is resumed, and wherein the obtained biocomponent is treated with a colloidal solution of cerium dioxide ( $\text{CeO}_2$ ) particles having a size from 6 nm to 8 nm in light distillates of petroleum in the amount providing a total concentration of cerium dioxide  $\text{CeO}_2$  particles in the biocomponent at the level of 5 ppm to 20 ppm.

IPC 8 full level

**C10G 1/08** (2006.01); **C10L 1/08** (2006.01)

CPC (source: EP)

**C10G 1/086** (2013.01); **C10G 2300/1003** (2013.01); **C10G 2400/04** (2013.01)

Citation (applicant)

- DE 10049377 A1 20020418 - EVK DR OBERLAENDER GMBH & CO K [DE]
- US 7473348 B2 20090106 - KOCH CHRISTIAN [DE]
- US 2007131585 A1 20070614 - KOCH CHRISTIAN [DE]
- PL 389069 A1 20110328 - EKOTREND SPOŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ [PL], et al
- US 2010139598 A1 20100610 - WANG WEI HUA [TW]

Citation (search report)

- [XDI] US 2007131585 A1 20070614 - KOCH CHRISTIAN [DE]
- [XY] GB 2473500 A 20110316 - EKOTREND SP Z O O [PL], et al
- [XDY] DE 10049377 A1 20020418 - EVK DR OBERLAENDER GMBH & CO K [DE]
- [A] US 2006254130 A1 20061116 - SCATTERGOOD ROGER [GB]
- [A] DE 102005040490 A1 20070208 - DEMIR YAVER [DE]

Cited by

WO2019014778A1; US10723956B2; US10961465B2; US11859134B2

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