

Title (en)

FIXED BED GASIFIER FOR PRODUCING A PRODUCT GAS FROM POURABLE CARBONACEOUS PARTICLES

Title (de)

FESTBETTVERGASER ZUM ERZEUGEN EINES PRODUKTGASES AUS SCHÜTTBAREN KOHLENSTOFFHALTIGEN TEILCHEN

Title (fr)

GAZÉIFICATEUR À LIT FIXE SERVANT À PRODUIRE UN PRODUIT GAZEUX À PARTIR DE PARTICULES CARBONÉES EN VRAC

Publication

EP 4065667 A1 20221005 (DE)

Application

EP 20825144 A 20201125

Priority

- DE 102019218310 A 20191126
- EP 2020083299 W 20201125

Abstract (en)

[origin: WO2021105171A1] A fixed bed gasifier for producing a product gas from pourable carbonaceous fuel particles is specified, which has a slag breakup device, and in which the breakup of slag nevertheless worsens the quality of the product gas to a minimum degree. The possibility of positioning the spike element of the slag breakup device at different points across the fuel particle bed allows the spike element to have a small design, and it is nevertheless possible to reach all regions of the fuel particle bed. The spike element intermittently enters the fuel particle bed in gasifying operation. Before it re-enters the bed, the drive adjusts the position of the spike element so that it does not enter the same spike channel again. This repeated local spiking at different times at different locations in the fuel particle bed moves the gasifier bed, and the process of sintering of slag particles that would block the entire gasifier cross section is disrupted. This also has the result that the gas can continue to flow through the individual zones over the entire cross section, and not just in the "spiked channel". In addition, lumps of slag that have sintered together are conveyed onward – in the direction of the support device – or else broken up again.

IPC 8 full level

C10J 3/26 (2006.01); **C10J 3/32** (2006.01); **C10J 3/40** (2006.01); **C10J 3/42** (2006.01)

CPC (source: EP US)

C10J 3/26 (2013.01 - EP US); **C10J 3/32** (2013.01 - EP US); **C10J 3/40** (2013.01 - EP US); **C10J 3/42** (2013.01 - EP US)

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)

DE 102019218310 A1 20210527; EP 4065667 A1 20221005; US 2022403265 A1 20221222; US 2024059990 A1 20240222; WO 2021105171 A1 20210603

DOCDB simple family (application)

DE 102019218310 A 20191126; EP 2020083299 W 20201125; EP 20825144 A 20201125; US 202017779615 A 20201125; US 202318497781 A 20231030