

Title (en)

Process for producing combustible gases from organic solids as well as reactor for carrying out the process

Title (de)

Verfahren zur Erzeugung von Brenngasen aus organischen Feststoffen und Reaktor zur Durchführung des Verfahrens

Title (fr)

Procédé pour la production des gaz combustibles à partir de solides organiques ainsi qu'un réacteur pour la réalisation du procédé

Publication

EP 0924288 A3 19991208 (DE)

Application

EP 98123931 A 19981216

Priority

DE 19755700 A 19971216

Abstract (en)

[origin: EP0924288A2] Bulk material in a chamber is continuously stirred, preventing channeling. The residence time of gases in the packed bed suffices to decompose tar content of fuel gas produced, by catalytic effect of the coked solids. Independent claims are included for: (i) a gasification reactor with a vertical shaft containing a grid at a narrow location, inlets for air (L) and a chamber below the grid, with a stirrer (13) in the chamber (10) preventing channeling in the packed bed (16); and (ii) a further gas production process. Preferred Features: The residence time is 0.4 seconds minimum, at 700-950 degrees C. A stirrer turns in the bed, e.g. a screw. The air is supplied to the chamber at several locations, one above the other. Some is supplied via the stirrer. Solids are extracted from the chamber with quasi-static bed and transferred into a fluidized bed with reactive fluidizing medium. Chamber filling by the packed bed is measured, residual solids (ash) being withdrawn accordingly at the base. Calcium-containing additive, especially dolomite, is added to the solids to be gasified.

IPC 1-7

C10J 3/14; **C10J 3/26**

IPC 8 full level

C10J 3/26 (2006.01); **C10J 3/66** (2006.01)

CPC (source: EP)

C10J 3/26 (2013.01); **C10J 3/32** (2013.01); **C10J 3/66** (2013.01); **C10J 2200/09** (2013.01); **C10J 2200/36** (2013.01)

Citation (search report)

- [A] DE 372212 C 19230416 - C H BORRMANN
- [A] US 5028241 A 19910702 - KOOIMAN CORNELIS A [NL], et al
- [A] EP 0531778 A1 19930317 - PORETTI GAGGINI SA [CH]
- [A] EP 0554529 A1 19930811 - BABCOCK ENERGIE UMWELT [DE]

Cited by

DE102015215143B4; EP3688122A4; DE102007010696B3; EP0979857A3; EP1522569A3; CN102159685A; EA018619B1; DE102008021966A1; DE102008021966B4; DE102008021966B8; EP1167492A3; DE102015215143A1; US2012017497A1; CN102361962A; EP1371714A3; EA021911B1; US8637209B2; US9236615B2; WO2009122225A3; WO2010095025A3; WO2010015316A3; WO0183645A1; WO2009122225A2; US8445548B2; WO2010100174A3; WO2024076286A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 0924288 A2 19990623; **EP 0924288 A3 19991208**; DE 19755700 A1 19990624; DE 19755700 C2 20000420

DOCDB simple family (application)

EP 98123931 A 19981216; DE 19755700 A 19971216