

Title (en)

GASIFICATION REACTOR COMPRISING A PRESSURE ABSORBING COMPLIANT STRUCTURE

Title (de)

VERGASUNGSREAKTOR MIT EINER NACHGIEBIGEN DRUCKABSORBIERENDEN STRUKTUR

Title (fr)

RÉACTEUR DE GAZÉIFICATION COMPORTANT UNE STRUCTURE DÉFORMABLE ABSORBANT LA PRESSION

Publication

EP 2721360 A1 20140423 (EN)

Application

EP 12800907 A 20120615

Priority

- SE 1150551 A 20110617
- SE 2012050661 W 20120615

Abstract (en)

[origin: WO2012173566A1] A reactor for gasification of feedstocks for gasification, adapted to handle feedstocks for gasification comprising organic and inorganic compounds, wherein said compounds during gasification in the presence of oxygen and/or air at a gasification temperature, wherein the melting temperatures of the constituent inorganic compounds is at least 100 °C lower than the gasification temperature, are converted to a hot reducing gas above 950 °C but below 1300 °C and comprising CO, CO₂, $\frac{3}{4}$ and H₂O (g), and a salt melt, wherein said reactor (100) comprises an outer reactor shell (7) and an inner refractory lining (2, 3, 4), wherein a compliant structure (5) is placed in a ring-shaped coaxial expansion space (6) between said outer reactor shell (7) and said inner refractory lining (2, 3, 4), wherein said compliant structure has a resilience and comprises a plurality of substantially parallel arranged metal profiles (12), adapted to distribute the compressive load between said reactor shell (7) and the inner refractory lining (2, 3, 4) in that the metal profiles (12) are positioned such that they form substantially parallel, pressure-absorbing bridges, wherein said profiles (12) are elastically deformed in a first compression interval (??1) and plastically deformed in a second compression interval (??2).

IPC 8 full level

F27D 1/00 (2006.01); **D21C 7/04** (2006.01); **D21C 11/12** (2006.01); **F23G 7/04** (2006.01); **F23M 5/00** (2006.01)

CPC (source: EP SE US)

C10B 29/02 (2013.01 - US); **D21C 7/04** (2013.01 - EP US); **D21C 11/12** (2013.01 - EP SE US); **F23G 7/04** (2013.01 - SE); **F23M 5/00** (2013.01 - EP SE US); **F27D 1/0023** (2013.01 - SE); **F23M 2900/05002** (2013.01 - EP US); **F23M 2900/05004** (2013.01 - EP US); **Y02E 20/00** (2013.01 - SE); **Y10T 29/49826** (2015.01 - 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

DOCDB simple family (publication)

WO 2012173566 A1 20121220; **WO 2012173566 A9 20130228**; BR 112013032461 A2 20190924; CN 103827618 A 20140528; EP 2721360 A1 20140423; EP 2721360 A4 20150318; SE 1150551 A1 20121218; SE 536161 C2 20130604; US 2014144081 A1 20140529

DOCDB simple family (application)

SE 2012050661 W 20120615; BR 112013032461 A 20120615; CN 201280029901 A 20120615; EP 12800907 A 20120615; SE 1150551 A 20110617; US 201214125334 A 20120615