

Title (en)
REACTIVE SOLID/HEAT-TRANSPORT GAS REACTOR INCLUDING A HELICAL DUCT IN WHICH THE SOLID AND THE GAS FLOW IN OPPOSITE DIRECTIONS

Title (de)
REAKTIVER FESTSTOFF-/WÄRMETRANSPORTGASREAKTOR MIT SPIRALFÖRMIGER LEITUNG MIT FESTSTOFF- UND GASSTROM IN ENTGEGENGESETZTEN RICHTUNGEN

Title (fr)
REACTEUR SOLIDE / GAZ CALOPORTEUR ET REACTIF COMPRENANT UN CONDUIT HELICOÏDAL DANS LEQUEL LE SOLIDE ET LE GAZ CIRCULENT A CONTRE-COURANT

Publication
EP 2717990 A1 20140416 (FR)

Application
EP 12729071 A 20120607

Priority

- FR 1154962 A 20110607
- EP 2012060787 W 20120607

Abstract (en)
[origin: WO2012168352A1] The invention relates to a reactive solid/heat-transport gas reactor (1) including: a helical duct (20) having an inlet (28) and an outlet (30), the duct defining a lower helical track (26) over which a solid reagent (4) is to slide from the inlet to the outlet of said helical duct; a means (50) for feeding the solid reagent into the inlet of the duct (20); and a means (54) for circulating a heat-transport gas in the helical duct (20) from the outlet (30) to the inlet (28) of said duct. The reactor further includes a tank (2) for the solid reagent (4), which is arranged under the outlet (30) of the helical duct (20), as well as a conveyor (8) for conveying the reagent from a lower point (16) of the tank toward said feeding means (50).

IPC 8 full level
B01D 45/16 (2006.01); **B01D 53/08** (2006.01); **B01D 53/26** (2006.01); **B01J 8/12** (2006.01); **B01J 8/16** (2006.01); **F24F 3/14** (2006.01); **F28C 3/14** (2006.01); **F28D 20/00** (2006.01)

CPC (source: EP US)
B01D 53/08 (2013.01 - EP US); **B01J 8/12** (2013.01 - EP US); **B01J 8/16** (2013.01 - EP US); **F28C 3/14** (2013.01 - EP US); **F28D 7/022** (2013.01 - EP US); **F28D 7/14** (2013.01 - EP US); **F28D 20/003** (2013.01 - EP US); **F28F 13/10** (2013.01 - US); **B01D 53/261** (2013.01 - EP US); **B01D 53/28** (2013.01 - EP US); **B01D 2253/106** (2013.01 - EP US); **B01D 2257/80** (2013.01 - EP US); **B01J 2208/00292** (2013.01 - EP US); **B01J 2208/0053** (2013.01 - EP US); **B01J 2208/0084** (2013.01 - EP US); **B01J 2208/00849** (2013.01 - EP US); **Y02E 60/14** (2013.01 - EP US)

Citation (search report)
See references of WO 2012168352A1

Citation (examination)

- WO 8912086 A1 19891214 - GREUL ARTUR RICHARD [DE]
- US 2006196356 A1 20060907 - HENDERSON TERRY D [US], et al

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 2012168352 A1 20121213; EP 2717990 A1 20140416; FR 2976192 A1 20121214; FR 2976192 B1 20160729; US 2014096933 A1 20140410; US 9513068 B2 20161206

DOCDB simple family (application)
EP 2012060787 W 20120607; EP 12729071 A 20120607; FR 1154962 A 20110607; US 201214123524 A 20120607