Title (en)

METHOD FOR MANUFACTURING A PRODUCT GAS AND GENERATING STEAM, AND MODULAR PRODUCT GAS-STEAM REACTOR FOR CARRYING OUT SAID METHOD

Title (de)

VERFAHREN ZUR ERZEUGUNG EINES PRODUKTGASES UND DAMPF SOWIE MODULARER PRODUKTGAS-DAMPF-REAKTOR ZUR DURCHFÜHRUNG DES VERFAHRENS

Title (fr)

PROCÉDÉ DE PRODUCTION D'UN GAZ DE PRODUIT ET DE VAPEUR, ET RÉACTEUR MODULAIRE GAZ DE PRODUIT-VAPEUR POUR LA MISE EN OEUVRE DE CE PROCÉDÉ

Publication

EP 2346597 A1 20110727 (DE)

Application

EP 09748066 A 20091019

Priority

- EP 2009063686 W 20091019
- DE 102008052374 A 20081020
- DE 102008052375 A 20081020
- DE 102009004750 A 20090115

Abstract (en)

[origin: WO2010046347A1] Disclosed is a method for generating steam and manufacturing a product gas by catalytically reacting a feed gas in a reactor unit comprising a reactor tube. Said method encompasses the following steps: - a catalyst bed is conveyed through the reactor tube; - the feed gas is allowed to flow into the catalyst bed against the direction of travel of the catalyst bed; - a temperature profile is regulated along the reactor tube by thermally insulating, heating, and/or cooling regulation sections in the reactor tube; and - the waste heat generated in one of the regulation sections by the cooling action is transferred from the reactor tube to a steam generation unit. The feed gas can be syngas and especially biogas.

IPC 8 full level

B01J 8/00 (2006.01)

CPC (source: EP US)

B01J 8/002 (2013.01 - EP US); **B01J 8/003** (2013.01 - EP US); **B01J 8/12** (2013.01 - EP US); B01J 2208/00176 (2013.01 - EP US); B01J 2208/00212 (2013.01 - EP US); B01J 2208/00495 (2013.01 - EP US); B01J 2208/0053 (2013.01 - EP US); B01J 2219/00038 (2013.01 - EP US)

Citation (search report)

See references of WO 2010046347A1

Designated contracting state (EPC)

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 SE SI SK SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

WO 2010046347 A1 20100429; BR PI0920580 A2 20151229; CA 2739868 A1 20100429; CN 102186574 A 20110914; EP 2346597 A1 20110727; US 2012114541 A1 20120510

DOCDB simple family (application)

EP 2009063686 W 20091019; BR PI0920580 A 20091019; CA 2739868 A 20091019; CN 200980141245 A 20091019; EP 09748066 A 20091019; US 200913125042 A 20091019