

Title (en)

METHOD FOR CARRYING OUT AN EXOTHERMIC GAS PHASE REACTION ON A HETEROGENEOUS PARTICULATE CATALYST

Title (de)

VERFAHREN ZUR DURCHFÜHRUNG EINER EXOTHERMEN GASPHASENREAKTION AN EINEM HETEROGENEN PARTIKELFÖRMIGEN KATALYSATOR

Title (fr)

PROCÉDÉ RÉACTIONNEL EXOTHERMIQUE EN PHASE GAZEUSE SUR UN CATALYSEUR PARTICULAIRE HÉTÉROGÈNE

Publication

EP 3010634 A1 20160427 (DE)

Application

EP 14729922 A 20140616

Priority

- EP 13172320 A 20130617
- EP 2014062508 W 20140616
- EP 14729922 A 20140616

Abstract (en)

[origin: WO2014202503A1] The invention relates to a method for carrying out an exothermic gas phase reaction on a heterogeneous particulate catalyst, which is introduced into the contact tubes of two or more multi-tube reactors (R-I, R-II) into the gaps between the thermal plates of two or more thermal plate reactors or in the beds of two or more bed reactors traversed by heat exchange means, wherein a heat transfer medium circulates through the intermediate space between the contact tubes (KR) of the two or more multi-tube reactors (R-I, R-II), through the thermal plates of the two or more thermal plate reactors or through the heat exchange means of the two or more bed reactors, wherein the method comprises a production mode and a regenerating mode, characterised in that the two or more multi-tube reactors (R-I, R-II), thermal plate reactors, or bed reactors have a single heat transfer medium circuit, and that always as many of the two or more multi-tube reactors (R-I, R-II), thermal plate reactors, or bed reactors are operated in production mode that the released heat of reaction minus the amount of heat consumed for heating of the feed stream (1) in all multi-tube reactors (R-I, R-II), thermal plate reactors or bed reactors to reaction temperature in the production mode is sufficient, such that the temperature of the heat transfer medium in the intermediate spaces between the contact tubes (KR) of all the multi-tube reactors (R-I, R-II), in the thermal plates of all the thermal plate reactors or in the heat exchange means of the bed reactors is kept constant at a fluctuation range of a maximum of +/- 10 °C.

IPC 8 full level

B01J 8/04 (2006.01); **B01J 8/06** (2006.01); **B01J 19/24** (2006.01); **C10G 2/00** (2006.01)

CPC (source: EP US)

B01J 8/0496 (2013.01 - EP US); **B01J 8/065** (2013.01 - EP US); **B01J 8/067** (2013.01 - EP US); **B01J 19/249** (2013.01 - EP US); **C01B 7/04** (2013.01 - US); **C07C 5/48** (2013.01 - US); **C10G 2/341** (2013.01 - EP US); **B01J 2208/00053** (2013.01 - EP US); **B01J 2208/00061** (2013.01 - EP US); **B01J 2208/00115** (2013.01 - EP US); **B01J 2208/00212** (2013.01 - US); **B01J 2208/00221** (2013.01 - EP US); **B01J 2208/00407** (2013.01 - EP US); **B01J 2208/0053** (2013.01 - EP US); **B01J 2208/065** (2013.01 - US); **B01J 2219/2462** (2013.01 - EP US); **B01J 2219/2467** (2013.01 - EP US); **B01J 2219/2481** (2013.01 - EP US)

Citation (search report)

See references of WO 2014202503A1

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)

WO 2014202503 A1 20141224; CN 105307765 A 20160203; EP 3010634 A1 20160427; JP 2016530984 A 20161006; KR 20160021207 A 20160224; US 2016367960 A1 20161222

DOCDB simple family (application)

EP 2014062508 W 20140616; CN 201480034280 A 20140616; EP 14729922 A 20140616; JP 2016520405 A 20140616; KR 20167000832 A 20140616; US 201414898788 A 20140616