

Title (en)

FLUIDIZED BED METHOD AND REACTOR FOR CARRYING OUT EXOTHERMIC CHEMICAL EQUILIBRIUM REACTIONS

Title (de)

WIRBELSCHICHTVERFAHREN UND REAKTOR ZUR DURCHFÜHRUNG EXOTHERMER CHEMISCHER GLEICHGEWICHTSREAKTIONEN

Title (fr)

PROCEDE A LIT FLUIDISE ET REACTEUR PERMETTANT DE CONDUIRE DES REACTIONS CHIMIQUES EXOTHERMES EQUILIBREES

Publication

**EP 1735084 A1 20061227 (DE)**

Application

**EP 05716251 A 20050321**

Priority

- EP 2005002973 W 20050321
- DE 102004014677 A 20040325

Abstract (en)

[origin: WO2005092488A1] The invention relates to a method for carrying out exothermic chemical equilibrium reactions in a fluidized bed reactor, wherein the temperature is distributed across the fluidized bed of the fluidized reactor and the temperature difference between the lowest and the highest temperature is at least 10 K. The invention also relates to a fluidized bed reactor for carrying out chemical reactions in a fluidized bed (5), which is characterized in that at least one heat exchanger (12, 28) is arranged in the fluidized bed (5) for controlling temperature distribution.

IPC 8 full level

**B01J 8/18** (2006.01); **B01J 8/24** (2006.01); **C01B 7/04** (2006.01)

CPC (source: EP KR US)

**B01J 8/18** (2013.01 - KR); **B01J 8/1836** (2013.01 - EP US); **B01J 8/1872** (2013.01 - EP US); **B01J 8/24** (2013.01 - KR);  
**C01B 7/00** (2013.01 - KR); **C01B 7/04** (2013.01 - EP KR US); **B01J 2208/00132** (2013.01 - EP US); **B01J 2208/00212** (2013.01 - EP US)

Citation (search report)

See references of WO 2005092488A1

Citation (examination)

- US 3679373 A 19720725 - VANCAMP RAYMOND M, et al
- US 3735498 A 19730529 - SUZUKAWA Y, et al

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**DE 102004014677 A1 20051013**; CN 103288052 A 20130911; CN 1956775 A 20070502; EP 1735084 A1 20061227;  
JP 2007530403 A 20071101; JP 4664968 B2 20110406; KR 101285932 B1 20130712; KR 20070018917 A 20070214; SG 175661 A1 20111128;  
US 2007202035 A1 20070830; WO 2005092488 A1 20051006

DOCDB simple family (application)

**DE 102004014677 A 20040325**; CN 200580017015 A 20050321; CN 201310093739 A 20050321; EP 05716251 A 20050321;  
EP 2005002973 W 20050321; JP 2007504331 A 20050321; KR 20067022072 A 20050321; SG 2011076726 A 20050321;  
US 59424305 A 20050321