

## Title (en)

DEVICE AND METHOD FOR CARRYING OUT HETEROGENEOUSLY CATALYSED GAS PHASE REACTIONS WITH HEAT TONALITY

## Title (de)

VORRICHTUNG UND VERFAHREN ZUR DURCHFÜHRUNG VON HETEROGEN KATALYSIERTEN GASPHASENREAKTIONEN MIT WÄRMETÖNUNG

## Title (fr)

DISPOSITIF ET PROCEDE PERMETTANT DE METTRE EN OEUVRE DES REACTIONS EN PHASE GAZEUSE, A CATALYSE HETEROGENE, AVEC CHALEUR DE REACTION

## Publication

**EP 1289650 A2 20030312 (DE)**

## Application

**EP 01957805 A 20010525**

## Priority

- DE 10025382 A 20000524
- EP 0106034 W 20010525

## Abstract (en)

[origin: WO0189683A2] The invention relates to a device for carrying out, in a substantially isothermal manner, a heterogeneously catalysed reaction in a gas phase with high heat tonality. The inventive device comprises at least one reactor chamber (101) with an inlet (131, 141) and an outlet (143). The reactor chamber is defined by heat dissipating walls, lying at a substantially constant distance of  $\leq 30$  mm along the main flow axis of a reaction gas; the reactor chamber is equipped with catalyst-coated strips (120, 132); the strips are permeable for the reaction gas and are flexible in all directions of the reactor chamber, having a surface/volume ratio of 50 to 5000  $\text{m}^2/\text{m}^3$  and good thermal conductivity; the reaction gas in the reactor chamber flows at a rate of  $\geq 200$   $\text{m}^3$  per  $\text{m}^2$  surface area per hour; and a heat exchange medium flows on the side of the reactor wall opposite the reactor chamber.

## IPC 1-7

**B01J 19/24**; **B01J 12/00**; **B01J 37/02**; **B01J 19/00**; **C07C 45/38**; **C07C 47/21**

## IPC 8 full level

**B01J 12/00** (2006.01); **B01J 19/00** (2006.01); **B01J 19/24** (2006.01); **C07B 61/00** (2006.01); **C07C 45/38** (2006.01); **C07C 47/21** (2006.01); **F28D 9/04** (2006.01)

## CPC (source: EP KR)

**B01J 12/007** (2013.01 - EP); **B01J 19/0013** (2013.01 - EP); **B01J 19/24** (2013.01 - EP KR); **B01J 19/248** (2013.01 - EP); **C07C 45/38** (2013.01 - EP); **F28D 9/04** (2013.01 - EP); **B01J 2219/00085** (2013.01 - EP); **B01J 2219/00096** (2013.01 - EP); **B01J 2219/1944** (2013.01 - EP); **B01J 2219/32466** (2013.01 - EP); **B01J 2219/32475** (2013.01 - EP)

## Citation (search report)

See references of WO 0189683A2

## Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

## DOCDB simple family (publication)

**WO 0189683 A2 20011129**; **WO 0189683 A3 20020510**; **WO 0189683 A9 20041111**; CN 1188212 C 20050209; CN 1437506 A 20030820; DE 10025382 A1 20011206; EP 1289650 A2 20030312; JP 2003534299 A 20031118; KR 20030022131 A 20030315; TW 575462 B 20040211

## DOCDB simple family (application)

**EP 0106034 W 20010525**; CN 01811551 A 20010525; DE 10025382 A 20000524; EP 01957805 A 20010525; JP 2001585916 A 20010525; KR 20027015864 A 20021123; TW 90112515 A 20010524