

Title (en)
SIMPLIFIED PLATE CHANNEL REACTOR ARRANGEMENT

Title (de)
VEREINFACHTER PLATTENBAUREAKTOR MIT KANÄLEN

Title (fr)
AGENCEMENT SIMPLIFIE DE REACTEUR DE CANAUX A PLATEAUX

Publication
EP 1345685 A1 20030924 (EN)

Application
EP 00988286 A 20001222

Priority
US 0035012 W 20001222

Abstract (en)
[origin: WO02051538A1] A process and apparatus for indirectly exchanging heat with narrow channels in a heat exchange type channel reaction zone uses plates (17) containing partially perforated sections (16) to simplify or eliminate the use of manifolds to distribute and collect different fluids to the various channels. The invention simplifies the operation by directly communicating adjacent channels across sections of perforations located at one end or the other of the channels. The arrangement of this invention provides the advantage of more compact heat exchanging reactor arrangements. The arrangement of the invention can also simplify the use of a single manifold arrangement at one end of the channels to facilitate catalyst unloading and catalyst replacement in the reaction channels.

IPC 1-7
B01J 19/24; B01J 19/32; B01J 8/00; F28D 21/00; F28D 9/00; F28F 3/04

IPC 8 full level
B01J 8/00 (2006.01); B01J 19/24 (2006.01); B01J 19/32 (2006.01); F28D 9/00 (2006.01); F28D 21/00 (2006.01); F28F 3/04 (2006.01)

CPC (source: EP KR)
B01J 8/002 (2013.01 - EP); B01J 19/24 (2013.01 - KR); B01J 19/249 (2013.01 - EP); B01J 19/32 (2013.01 - EP); F28D 9/0037 (2013.01 - EP); F28D 21/0015 (2013.01 - EP); F28F 3/046 (2013.01 - EP); B01J 2208/00309 (2013.01 - EP); B01J 2208/022 (2013.01 - EP); B01J 2219/2453 (2013.01 - EP); B01J 2219/2459 (2013.01 - EP); B01J 2219/246 (2013.01 - EP); B01J 2219/2462 (2013.01 - EP); B01J 2219/2465 (2013.01 - EP); B01J 2219/2472 (2013.01 - EP); B01J 2219/2479 (2013.01 - EP); B01J 2219/2481 (2013.01 - EP); B01J 2219/3221 (2013.01 - EP); B01J 2219/32217 (2013.01 - EP); B01J 2219/32227 (2013.01 - EP); B01J 2219/32237 (2013.01 - EP); B01J 2219/32255 (2013.01 - EP); B01J 2219/32466 (2013.01 - EP); B01J 2219/32475 (2013.01 - EP); F28F 2215/04 (2013.01 - EP); F28F 2250/104 (2013.01 - EP)

Citation (search report)
See references of WO 02051538A1

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 02051538 A1 20020704; AU 2001224509 B2 20060727; CA 2432082 A1 20020704; CA 2432082 C 20090428; CN 1527742 A 20040908; EA 005643 B1 20050428; EA 200300719 A1 20040624; EP 1345685 A1 20030924; KR 100807164 B1 20080227; KR 20030072575 A 20030915; MX PA03005732 A 20031006; NO 20032865 D0 20030620; NO 20032865 L 20030819

DOCDB simple family (application)
US 0035012 W 20001222; AU 2001224509 A 20001222; CA 2432082 A 20001222; CN 00820126 A 20001222; EA 200300719 A 20001222; EP 00988286 A 20001222; KR 20037008470 A 20001222; MX PA03005732 A 20001222; NO 20032865 A 20030620