

Title (en)
HEAT EXCHANGER

Title (de)
WÄRMETAUSCHER

Title (fr)
ÉCHANGEUR DE CHALEUR

Publication
EP 3176532 A1 20170607 (EN)

Application
EP 15827887 A 20150729

Priority
• JP 2014153946 A 20140729
• JP 2015071513 W 20150729

Abstract (en)
Object: To provide a heat exchanger having a superior heat exchange efficiency. Resolution means: The heat exchanger according to the present invention is formed from a ceramic and performs heat exchange between a first fluid and a second fluid. The heat exchanger is provided with: a plurality of first members including walls that have introduction holes on a first end side and discharge holes on a second end side, with spaces connecting the introduction holes and the discharge holes serving as first channels through which the first fluid flows; second members that communicate with the introduction holes at the first end side of the plurality of first members to introduce the first fluid to the first members; and third members that communicate with the discharge holes at the second end side of the plurality of first members to discharge the first fluid that has flowed through the first members. In such a heat exchanger, spaces between the plurality of first members serve as second channels through which the second fluid flows and, in at least one adjacent pair of the introduction holes, regions that overlap with opening regions of the upstream-side introduction holes exist in the walls including the downstream-side introduction holes, when viewed in a direction in which the first fluid flows.

IPC 8 full level
F28F 9/02 (2006.01); **F28D 1/053** (2006.01); **F28F 13/08** (2006.01); **F28F 13/12** (2006.01); **F28F 21/04** (2006.01)

CPC (source: EP US)
F28D 1/053 (2013.01 - EP US); **F28F 9/02** (2013.01 - EP US); **F28F 13/08** (2013.01 - EP US); **F28F 13/12** (2013.01 - EP US);
F28F 21/04 (2013.01 - EP US)

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)
EP 3176532 A1 20170607; **EP 3176532 A4 20180822**; **EP 3176532 B1 20220720**; JP 6325674 B2 20180516; JP WO2016017697 A1 20170427; US 2017219302 A1 20170803; WO 2016017697 A1 20160204

DOCDB simple family (application)
EP 15827887 A 20150729; JP 2015071513 W 20150729; JP 2016538401 A 20150729; US 201515329699 A 20150729