

Title (en)

Porous structure for fluid including a conduit

Title (de)

Poröse Struktur für Flüssigkeit, in die eine Leitung eingebaut ist

Title (fr)

Structure poreuse pour fluide incorporant un conduit

Publication

EP 2679946 A1 20140101 (FR)

Application

EP 13290151 A 20130626

Priority

FR 1201858 A 20120629

Abstract (en)

The heat exchanger (1) has a metal pipe (2) through which a fluid (F3) circulates, where the metal pipe is placed against a metal foam block (5) through which another fluid (F4) circulates. The metal pipe is fixed in an open housing formed on an outer surface of the metal foam block matching the shape of the metal pipe. The open housing of the metal foam block includes a bent portion placed between two openings emerging on both sides of the metal foam block, where the metal pipe is fixed to the metal foam block by brazing.

Abstract (fr)

L'invention concerne une structure poreuse (1) comprenant au moins un conduit métallique (2) dans lequel circule un premier fluide (F3) et contre lequel est disposé au moins un bloc de mousse métallique (5) à travers lequel circule un deuxième fluide (F4), caractérisé en ce que ledit conduit métallique (2) est fixé dans un logement ouvert réalisé sur une surface externe dudit bloc de mousse métallique (5) épousant la forme dudit conduit métallique (2).

IPC 8 full level

F28F 13/00 (2006.01); **B22C 9/22** (2006.01); **C22C 1/08** (2006.01)

CPC (source: EP)

B22C 9/10 (2013.01); **B22C 9/26** (2013.01); **B22D 25/005** (2013.01); **C22C 1/08** (2013.01); **C22C 1/083** (2023.01); **C22C 1/086** (2023.01); **F28F 13/003** (2013.01)

Citation (applicant)

- FR 2880106 A1 20060630 - FRAMATOME ANP SAS [FR]
- WO 2007126474 A1 20071108 - CATERPILLAR INC [US], et al
- WO 2005054768 A1 20050616 - WIELAND WERKE AG [DE], et al
- US 2010266391 A1 20101021 - SCHLICHTING KEVIN W [US], et al

Citation (search report)

- [XY] JP S555151 A 19800116 - HITACHI LTD
- [XI] FR 2693791 A1 19940121 - COMMISSARIAT ENERGIE ATOMIQUE [FR]
- [XI] GB 2024066 A 19800109 - HITACHI LTD
- [Y] WO 2008099014 A1 20080821 - ECOLE POLYTECH [CH], et al
- [A] WO 02093644 A2 20021121 - PORE M GMBH [DE], et al
- [A] US 3210166 A 19651005 - CARLSON NORMAN G
- [A] CONDE Y ET AL: "Replication processing of highly porous materials", ADVANCED ENGINEERING MATERIALS, WILEY VCH VERLAG, WEINHEIM, DE, vol. 8, no. 9, 1 September 2006 (2006-09-01), pages 795 - 803, XP009100381, ISSN: 1438-1656, DOI: 10.1002/ADEM.200600077

Cited by

DE102014118177A1; DE102014118178A1

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 2679946 A1 20140101; FR 2992716 A1 20140103

DOCDB simple family (application)

EP 13290151 A 20130626; FR 1201858 A 20120629