

Title (en)

Heat exchanger of three-dimensional textile structure, use of same and method for producing same

Title (de)

Wärmeübertrager aus einer dreidimensionalen textilen Struktur, Verfahren zu dessen Herstellung und dessen Verwendung

Title (fr)

Échangeur de chaleur d'une structure textile tridimensionnelle, son procédé de fabrication et son utilisation

Publication

EP 2418450 A3 20140312 (DE)

Application

EP 11006619 A 20110811

Priority

DE 102010034019 A 20100811

Abstract (en)

[origin: EP2418450A2] The method involves synchronously producing a three-dimensional textile structure with two structural regions (2) that are different from each other using a textile manufacturing technique, where the regions differ in thickness of technical fibers or wires and/or porosity. One structural region is closed in sections under formation of channels opposite to the other structural region. The latter structural region is modified by coating and/or thermal and/or chemical activation of the wires or fibers for enlarging a specific surface in the entire regions. An independent claim is also included for a heat exchanger including a three-dimensional textile structure.

IPC 8 full level

F28F 1/12 (2006.01); **F28D 21/00** (2006.01); **F28F 7/02** (2006.01); **F28F 13/00** (2006.01); **F28D 5/00** (2006.01); **F28D 15/02** (2006.01)

CPC (source: EP)

F28D 21/0001 (2013.01); **F28F 1/122** (2013.01); **F28F 7/02** (2013.01); **F28F 13/003** (2013.01); **F28F 13/187** (2013.01); **F25B 39/026** (2013.01); **F28D 5/00** (2013.01); **F28D 15/02** (2013.01); **F28D 2021/0038** (2013.01); **F28F 2210/02** (2013.01); **F28F 2215/04** (2013.01); **F28F 2245/00** (2013.01); **F28F 2255/06** (2013.01)

Citation (search report)

- [X] EP 1715276 A2 20061025 - BEHR GMBH & CO KG [DE]
- [A] US 2004226702 A1 20041118 - TOONEN THEODOR JOHANNES PETER [NL], et al
- [A] DE 102006035189 A1 20080131 - FACHHOCHSCHULE KAISERSLAUTERN [DE]
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DE102017217569A1; EP2817389A4; WO2014055045A1; WO2018091364A1

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 2418450 A2 20120215; EP 2418450 A3 20140312; EP 2418450 B1 20150617; DE 102010034019 A1 20120216;
DE 102010034019 A8 20120524

DOCDB simple family (application)

EP 11006619 A 20110811; DE 102010034019 A 20100811