

Title (en)

PLATE FOR USE AS HEAT EXCHANGE PLATE AND METHOD FOR MANUFACTURING SUCH A PLATE

Title (de)

PLATTE ZUR VERWENDUNG ALS WÄRMETAUSCHERPLATTE UND VERFAHREN ZUR HERSTELLUNG SOLCH EINER PLATTE

Title (fr)

PLAQUE POUR L'UTILISATION EN TANT QUE PLAQUE D'ÉCHANGE DE CHALEUR ET PROCÉDÉ DE FABRICATION DE LADITE PLAQUE

Publication

EP 3104109 B1 20210106 (EN)

Application

EP 15755314 A 20150219

Priority

- JP 2014036890 A 20140227
- JP 2015054563 W 20150219

Abstract (en)

[origin: EP3104109A1] The object of the invention is to provide: a plate for a heat-exchanging plate that allows a liquid film generated during the operation of a heat exchanger to be efficiently discharged, allows irregularities to be formed such that the thickness of the liquid film is reduced, and allows enhancing heat-transfer performance without collapse of the irregularities; and a method for producing the plate. A plate (1) for a heat-exchanging plate is constituted by a metallic flat plate having fine irregularities formed on a surface thereof, and is obtained through press working, which is implemented as a post-process, of the flat plate. The irregularities include a plurality of projections (2) formed at a predetermined spacing. The plurality of projections (2) include first ridges (2a) disposed at an angle +, with respect to the width direction of the plate (1), and second ridges (2b) disposed at an angle -, with respect to the width direction of the plate (1). The projections (2) are formed into V-shapes by the first ridges (2a) and the second ridges (2b).

IPC 8 full level

F28F 3/04 (2006.01); **F28D 9/00** (2006.01)

CPC (source: EP KR RU US)

F28D 9/00 (2013.01 - KR); **F28F 3/046** (2013.01 - RU); **F28F 3/048** (2013.01 - EP KR US); **F28F 13/04** (2013.01 - US); **F28F 13/12** (2013.01 - US); **F28F 17/005** (2013.01 - EP KR US); **F28F 21/086** (2013.01 - KR); **F28F 2255/08** (2013.01 - KR)

Citation (examination)

- US 2007225532 A1 20070927 - TONKOVICH ANNA L [US], et al
- US 2011174473 A1 20110721 - SMITH RICHARD S [US], et al

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

DOCDB simple family (publication)

EP 3104109 A1 20161214; **EP 3104109 A4 20180117**; **EP 3104109 A8 20170215**; **EP 3104109 B1 20210106**; CN 106030234 A 20161012; CN 106030234 B 20180720; DK 3104109 T3 20210301; JP 2015161449 A 20150907; JP 6219199 B2 20171025; KR 101889637 B1 20180817; KR 20160121583 A 20161019; PL 3104109 T3 20210614; RU 2016138147 A 20180330; RU 2016138147 A3 20180330; RU 2650224 C2 20180411; US 2016363395 A1 20161215; WO 2015129539 A1 20150903

DOCDB simple family (application)

EP 15755314 A 20150219; CN 201580009229 A 20150219; DK 15755314 T 20150219; JP 2014036890 A 20140227; JP 2015054563 W 20150219; KR 20167026422 A 20150219; PL 15755314 T 20150219; RU 2016138147 A 20150219; US 201515120912 A 20150219