

Title (en)
PLATE TYPE HEAT EXCHANGER

Title (de)
PLATTENWÄRMETAUSCHER

Title (fr)
ECHANGEUR THERMIQUE DU TYPE A PLAQUES

Publication
EP 1085286 A4 20040616 (EN)

Application
EP 00911295 A 20000323

Priority
• JP 0001762 W 20000323
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Abstract (en)
[origin: EP1085286A1] The present invention relates to a plate heat exchanger for exchanging heat between two fluids flowing alternately through adjacent fluid passages between piled plates. Two plates are piled as a set on each other at peripheries thereof to form a heat exchange element (2). Each of the two plates has a projection and a depression and is provided with opening portions (5) at both ends in a longitudinal direction thereof. A plurality of the heat exchange elements (2) are piled so that the opening portions (5) are aligned with each other. A space (11) between the two plates (3) forming the heat exchange element (2) defines a passage for a first fluid. A space (12) between the adjacent heat exchange elements (2) defines a passage for another fluid having heat exchange relationship with the first fluid. The plate (3) serves as a heat transfer surface for both of the fluids. The peripheral portions (4) of the heat exchange elements (2) are brought into contact with each other to form a sealed passage for the second fluid when the heat exchange elements (2) are piled on each other. <IMAGE> <IMAGE> <IMAGE>

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F28D 9/00

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Citation (search report)
• [XY] US 4184542 A 19800122 - SUMITOMO HIROYUKI [JP]
• [Y] WO 9810233 A1 19980312 - ABB POWER OY [FI], et al
• [A] DE 3124918 A1 19830210 - LENDZIAN HELGE DIPL ING [DE]
• [A] WO 9109262 A1 19910627 - KONTU MAURI [FI]
• [A] DE 3511829 A1 19861009 - ERDMANN HORST
• [X] PATENT ABSTRACTS OF JAPAN vol. 009, no. 213 (M - 408) 30 August 1985 (1985-08-30)
• [X] PATENT ABSTRACTS OF JAPAN vol. 018, no. 331 (M - 1626) 23 June 1994 (1994-06-23)
• [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 299 (M - 847) 11 July 1989 (1989-07-11)
• [A] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 14 31 December 1998 (1998-12-31)
• [A] PATENT ABSTRACTS OF JAPAN vol. 014, no. 478 (M - 1036) 18 October 1990 (1990-10-18)
• [A] PATENT ABSTRACTS OF JAPAN vol. 1995, no. 06 31 July 1995 (1995-07-31)
• See references of WO 0057121A1

Cited by
US2015129183A1; EP1283403A3; DE102012107381A1; FR2921467A1; KR20220056872A; US7069982B2; WO2009044033A3; WO2013131794A1; WO2006104443A1; US9046310B2

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