

Title (en)  
HEAT EXCHANGE ELEMENT

Title (de)  
WÄRMETAUSCHERELEMENT

Title (fr)  
ÉLÉMENT D'ÉCHANGE DE CHALEUR

Publication  
**EP 4372304 A4 20240821 (EN)**

Application  
**EP 21950054 A 20210712**

Priority  
JP 2021026095 W 20210712

Abstract (en)  
[origin: EP4372304A1] A heat exchange element is a heat exchange element formed by stacking a plurality of heat transfer plates (1). The heat transfer plate (1) includes: a heat exchanger (5) that allows air passing through one side in a stacking direction of a plurality of the heat transfer plates (1) and air passing through another side in the stacking direction to pass through in directions facing to each other to cause heat exchange; a header (6a, 6b) provided on one side and another side with the heat exchanger (5) interposed therebetween when viewed along the stacking direction; and a joining edge (25 to 28) provided along a side of the heat exchanger (5) not in contact with the header (6a, 6b). Joining edges (25 to 28) of a plurality of the stacked heat transfer plates (1) are in contact with each other and joined by ultrasonic welding, and the joining edge (25 to 28) is formed with a first convex portion (16) that protrudes along the stacking direction and a concave portion (15) into which the first convex portion (16) of an adjacent heat transfer plate is fitted.

IPC 8 full level  
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Citation (search report)

- [A] US 2012196523 A1 20120802 - JIANG LONGHAO [CN], et al
- [A] EP 2118609 B1 20150701 - AIR TECH CO LTD [KR]
- [A] KR 100724225 B1 20070531
- See also references of WO 2023286110A1

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**EP 4372304 A1 20240522; EP 4372304 A4 20240821**; CA 3226203 A1 20230119; CN 117651841 A 20240305; JP WO2023286110 A1 20230119; US 2024240880 A1 20240718; WO 2023286110 A1 20230119

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**EP 21950054 A 20210712**; CA 3226203 A 20210712; CN 202180100277 A 20210712; JP 2021026095 W 20210712; JP 2023534435 A 20210712; US 202118559975 A 20210712