

Title (en)

Heat exchanger moulded from refractory material.

Title (de)

Wärmetauscher gegossen aus einem hitzebeständigen Material.

Title (fr)

Echangeurs de chaleur moulés en matière réfractaire.

Publication

**EP 0131502 A1 19850116 (FR)**

Application

**EP 84401324 A 19840625**

Priority

FR 8311495 A 19830711

Abstract (en)

[origin: ES8603064A1] Heat exchanger for sepd. fluids with separate channels for the fluid to be heated and the are to be cooled, comprises a body contg. the channels moulded by casting refractory material which sets at ambient temp. with a shrinkage less than 0.5%, at least one of the channels including at least one bend, the body being completely monolithic. - The refractory material contains fused and cast grains of one of the systems: ZrO<sub>2</sub>-SiO<sub>2</sub>, ZrO<sub>2</sub>-SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> and ZrO<sub>2</sub>-SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>-Cr<sub>2</sub>O<sub>3</sub>.

[origin: ES8603064A1] Heat exchanger for sepd. fluids with separate channels for the fluid to be heated and the are to be cooled, comprises a body contg. the channels moulded by casting refractory material which sets at ambient temp. with a shrinkage less than 0.5%, at least one of the channels including at least one bend, the body being completely monolithic. - The refractory material contains fused and cast grains of one of the systems: ZrO<sub>2</sub>-SiO<sub>2</sub>, ZrO<sub>2</sub>-SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> and ZrO<sub>2</sub>-SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>-Cr<sub>2</sub>O<sub>3</sub>.

Abstract (fr)

Echangeur de chaleur; cet échangeur à fluides séparés comporte un corps monolithique, moulé en matière réfractaire, qui comprend en son sein, venus de moulage, au moins un canal (2) pour le fluide à réchauffer et au moins un canal (5) pour le fluide à refroidir en relation mutuelle d'échange de chaleur. Application à toutes industries avec des fluides corrosifs ou abrasifs, pour basses ou hautes températures.

IPC 1-7

**F28F 7/02**; **F28F 21/04**

IPC 8 full level

**C04B 35/48** (2006.01); **F28D 17/02** (2006.01); **F28D 21/00** (2006.01); **F28F 7/02** (2006.01); **F28F 21/04** (2006.01)

CPC (source: EP US)

**F28F 7/02** (2013.01 - EP US); **F28F 21/04** (2013.01 - EP US); **Y10S 165/395** (2013.01 - EP US); **Y10S 165/905** (2013.01 - EP US)

Citation (search report)

- [A] US 4156625 A 19790529 - WACHENDORFER PAUL L SR [US]
- [A] EP 0021936 A1 19810107 - PRODUITS REFRACTAIRES [FR]
- [A] GB 766668 A 19570123 - ATOMIC ENERGY AUTHORITY UK
- [A] FR 2118014 A1 19720728 - ICI LTD
- [A] DE 2458140 A1 19760610 - RUPP OTTMAR
- [A] FR 2429763 A1 19800125 - PRODUITS REFRACTAIRES [FR]
- [A] FR 2449662 A1 19800919 - ISOLITE INSULATING PROD [JP], et al

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**EP 0131502 A1 19850116**; **EP 0131502 B1 19880127**; DE 3469058 D1 19880303; ES 534181 A0 19851116; ES 8603064 A1 19851116; FR 2549215 A1 19850118; FR 2549215 B1 19880624; JP H0361118 B2 19910918; JP S6038591 A 19850228; US 4711298 A 19871208; US 4770828 A 19880913

DOCDB simple family (application)

**EP 84401324 A 19840625**; DE 3469058 T 19840625; ES 534181 A 19840710; FR 8311495 A 19830711; JP 14249684 A 19840711; US 4053687 A 19870417; US 91457186 A 19861003