

Title (en)  
PLATE TYPE HEAT EXCHANGER FOR THREE FLUIDS AND METHOD OF MANUFACTURING THE HEAT EXCHANGER

Title (de)  
PLATTENWÄRMETAUSCHER FÜR DREI FLUIDE UND VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)  
ECHANGEUR THERMIQUE DU TYPE A PLAQUES POUR TROIS FLUIDES ET PROCEDE DE FABRICATION

Publication  
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Application  
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Abstract (en)  
The present invention relates to a plate heat exchanger for three fluids, which allows a first fluid to exchange heat with a second fluid, and then with a third fluid. A preceding-stage heat exchange section (13A) having interplate first fluid paths (f1) for passing the first fluid (La) between the plates and interplate second fluid paths (f2) for passing the second fluid (Lc) between the plates is formed at one side of the plate laminate in a plate laminating direction, and the interplate first fluid paths (f1) and the interplate second fluid paths (f2) are positioned alternately in the plate laminating direction. A succeeding-stage heat exchange section (13B) having interplate first fluid paths (f1) for passing the first fluid (La) between the plates and interplate third fluid paths (f3) for passing the third fluid (Lb) between the plates is formed at the other side of the plate laminate in a plate laminating direction, and the interplate first fluid paths (f1) and the interplate third fluid paths (f3) are positioned alternately in the plate laminating direction. A first fluid crossover path (m) is provided for allowing the first fluid which has passed through the interplate first fluid paths in the preceding-stage heat exchange section to flow into the interplate first fluid paths in the succeeding-stage heat exchange section. <IMAGE>

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Cited by  
CN105003983A; JP2015207535A; EP2080976A1; US2013146246A1; DE102012105604B4; EP3388772A4; DE102010048015B4; DE102015203141A1; FR2846733A1; FR2846736A1; DE102004020602A1; ES2188415A1; EP3511666A4; EP3524913A4; US7334431B2; DE102016101677B4; US10697677B2; WO2004092663A1; WO2020136092A3; WO2018013054A1; US10883767B2; US11022376B2; DE102010048015A1; US9581367B2; WO03046461A1; JP2007506928A; US7469554B2; US8122736B2; WO2004113815A1; WO2004042293A1; WO2004042312A1

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