

Title (en)
Heat exchanger applicable to fuel-reforming system and turbo-generator system

Title (de)
Wärmetauscher für Brennstoffreformierungs- und Turbogeneratorsysteme

Title (fr)
Echangeur de chaleur pour systèmes regenerateurs de carburant et turbo-generateurs

Publication
EP 1418397 A2 20040512 (EN)

Application
EP 03257048 A 20031107

Priority
• JP 2002325045 A 20021108
• JP 2002325052 A 20021108

Abstract (en)
A heat exchanger is applied well to a turbogenerator system and a fuel-reforming system(15). The heat exchanger has porous metals(1) disposed in a hotter area(7) and a colder area(8), one to each area, and a wall(2) separating the two areas(7,8) from one another. The porous metals(1) are merged integrally with the wall(2) through junction layers(9,10) to raise largely the efficiency of the heat exchanger. Heat is transferred from the hotter area(7) where a fluid is allowed to flow through there to the colder area(8) where another fluid is allowed to pass through there through the wall isolating the two fluids different in temperature from one another. The porous metals(1) in the hotter and colder areas(7,8) are merged together with the opposite surfaces of the wall(2) through junction layers(9,10) buried into the porous metals(1). The junction layers(9,10) are made of pasty joining material kneaded with a powdery metal. The junction layers(9,10) over the porous metals(1) are brought into close contact with the opposite surfaces of the wall(2) and subjected to sintering to get the porous metals(1) merging together with the wall(2). <IMAGE>

IPC 1-7
F28F 13/18

IPC 8 full level
F28F 13/18 (2006.01)

CPC (source: EP)
F28F 13/003 (2013.01); **F28F 13/185** (2013.01)

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