

Title (en)
RADIANT HEAT PUMP DEVICE AND METHOD

Title (de)
STRAHLUNGSWÄRMEPUMPE UND VERFAHREN

Title (fr)
DISPOSITIF ET PROCEDE DE POMPE A CHALEUR RAYONNANTE

Publication
EP 1516148 A1 20050323 (EN)

Application
EP 03727069 A 20030528

Priority
• CA 0300778 W 20030528
• US 38311502 P 20020528

Abstract (en)
[origin: WO03100327A1] The present method and device is for configuring the geometry of a surface (18) to emit highly non-diffuse radiant energy. When a target surface (12) is placed in a region where it is targeted by the emitting surface (18), there can be a net heat flow from the surface emitting the radiant energy to the target surface (12), notwithstanding the target surface (12) may be at higher temperature than the emitting surface (18). This method is employed in a radiant heat pump whereby the surface for emitting energy radiation surrounds a target. The target may use the temperature increase to upgrade heat flowing through the target for use in industrial processes.

IPC 1-7
F24J 3/00; **F28F 13/18**

IPC 8 full level
F24J 3/00 (2006.01); **F24V 30/00** (2018.01); **F25B 23/00** (2006.01); **F28F 13/18** (2006.01)

CPC (source: EP US)
F24V 99/00 (2018.04 - EP US); **F28F 13/18** (2013.01 - EP US)

Citation (search report)
See references of WO 03100327A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 03100327 A1 20031204; **WO 03100327 B1 20040129**; AU 2003233699 A1 20031212; CA 2430219 A1 20031128; CN 1668881 A 20050914; EP 1516148 A1 20050323; JP 2005527775 A 20050915; RU 2004137794 A 20050810; US 2004035131 A1 20040226; US 2007012433 A1 20070118

DOCDB simple family (application)
CA 0300778 W 20030528; AU 2003233699 A 20030528; CA 2430219 A 20030528; CN 03816510 A 20030528; EP 03727069 A 20030528; JP 2004507742 A 20030528; RU 2004137794 A 20030528; US 43930006 A 20060522; US 44767903 A 20030528