

Title (en)

CERAMIC HEAT PIPE WITH POROUS CERAMIC WICK

Title (de)

KERAMIKWÄRMEROHR MIT PORÖSEM KERAMIKDOCHT

Title (fr)

CALODUC EN CERAMIQUE AVEC MECHE EN CERAMIQUE POREUSE

Publication

EP 2332172 A2 20110615 (EN)

Application

EP 09818180 A 20090825

Priority

- US 2009054846 W 20090825
- US 24205108 A 20080930

Abstract (en)

[origin: US2010078151A1] A heat pipe for transporting heat from light emitting elements includes a sealed body made of a non-porous ceramic, a vapor channel inside the body that extends between two heat transfer locations spaced apart on an exterior surface of the body, a ceramic wick inside the body that extends between the two heat transfer locations, and a working fluid that partially fills the vapor transport channel. In a method of making this heat pipe, the body and wick are desirably formed together as a seamless monolithic structure made of the same ceramic material. Using a ceramic makes the heat pipe corrosion resistant and allows electrical components like LEDs to be mounted directly on the body because the ceramic is a dielectric.

IPC 8 full level

F28D 15/04 (2006.01); **F21V 29/00** (2006.01)

CPC (source: EP KR US)

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C-Set (source: EP US)

H01L 2924/0002 + H01L 2924/00

Designated contracting state (EPC)

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Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

US 2010078151 A1 20100401; CA 2738072 A1 20100408; CN 102171819 A 20110831; EP 2332172 A2 20110615; EP 2332172 A4 20131009; JP 2012504339 A 20120216; KR 20110063844 A 20110614; WO 2010039358 A2 20100408; WO 2010039358 A3 20100527; WO 2010039358 A8 20110421

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