

Title (en)

Plasma application of thermal barrier coatings with reduced thermal conductivity on combustor hardware

Title (de)

Plasmaanwendung von Wärmedämmbeschichtungen mit verringerter Wärmeleitfähigkeit auf der Brennkammer-Hardware

Title (fr)

Application de plasma sur des revêtements de barrière thermique à conductivité thermique réduite sur un matériel de chambre de combustion

Publication

**EP 2336381 A1 20110622 (EN)**

Application

**EP 10251689 A 20100930**

Priority

US 63805109 A 20091215

Abstract (en)

A process for forming a thermal barrier coating comprises the steps of providing a substrate, providing a gadolinia stabilized zirconia powder, and forming a thermal barrier coating having at least one of a porosity in a range of from 5 to 20% and a dense segmented structure on said substrate by supplying the gadolinia stabilized powder to a spray gun and using an air plasma spray technique.

IPC 8 full level

**C23C 4/04** (2006.01); **C23C 4/10** (2006.01); **C23C 4/12** (2006.01)

CPC (source: EP US)

**C23C 4/11** (2016.01 - EP US); **C23C 4/134** (2016.01 - EP US)

Citation (applicant)

- US 5879753 A 19990309 - ZAJCHOWSKI PAUL H [US], et al
- US 99467697 A 19971219

Citation (search report)

- [X] EP 1806436 A1 20070711 - UNITED TECHNOLOGIES CORP [US]
- [X] EP 1642993 A1 20060405 - UNITED TECHNOLOGIES CORP [US]
- [A] EP 1889948 A2 20080220 - UNITED TECHNOLOGIES CORP [US]
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- [A] EP 1621647 A2 20060201 - UNITED TECHNOLOGIES CORP [US]
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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

BA ME RS

DOCDB simple family (publication)

**EP 2336381 A1 20110622**; **EP 2336381 B1 20140604**; SG 172522 A1 20110728; US 2011143043 A1 20110616

DOCDB simple family (application)

**EP 10251689 A 20100930**; SG 2010067361 A 20100916; US 63805109 A 20091215