

Title (en)
FINE-POROSITY CERAMIC COATING VIA SPPS

Title (de)
FEINPORÖSE KERAMIKBESCHICHTUNG MITTELS SPPS

Title (fr)
REVÊTEMENT CÉRAMIQUE MICROPOREUX APPLIQUÉ PAR SPPS

Publication
EP 2614173 A1 20130717 (DE)

Application
EP 11775935 A 20111019

Priority
• EP 10190672 A 20101110
• EP 2011068225 W 20111019
• EP 11775935 A 20111019

Abstract (en)
[origin: EP2453036A1] A fine porous ceramic layer (10) containing zirconia, gadolinium zirconate, ytterbium zirconate, europium zirconate and/or lanthanum zirconate is formed on a substrate (4) and/or metallic layer by dissolving water-soluble salt of zirconium chosen from zirconium tetrachloride, zirconium tetraiodide, zirconium tetranitrate pentahydrate, zirconium sulfate and zirconium tetrasulfate tetrahydrate, water-soluble salt of gadolinium, water-soluble salt of ytterbium, water-soluble salt of europium and water-soluble salt of lanthanum by plasma. A fine porous ceramic layer containing zirconia, gadolinium zirconate, ytterbium zirconate, europium zirconate and/or lanthanum zirconate is formed on a substrate and/or metallic layer by dissolving water-soluble salt of zirconium chosen from zirconium tetrachloride, zirconium tetraiodide, zirconium tetranitrate pentahydrate, zirconium sulfate and zirconium tetrasulfate tetrahydrate, water-soluble salt of gadolinium chosen from gadolinium trichloride, gadolinium trichloride hexahydrate, gadolinium tribromide hexahydrate, gadolinium triiodide and gadolinium trinitrate, water-soluble salt of ytterbium chosen from ytterbium(II) chloride, ytterbium(III)chloride hexahydrate, ytterbium(II) bromide, ytterbium(III) bromide, ytterbium(II) iodide and ytterbium(III) iodide, water-soluble salt of europium chosen from europium(II) chloride, europium(II) bromide, europium(III) bromide, europium(II) iodide, europium(III) iodide and europium(III) nitrate and water-soluble salt of lanthanum chosen from lanthanum chloride heptahydrate, lanthanum trichloride, lanthanum bromide heptahydrate and lanthanum iodide by plasma.

IPC 8 full level
C23C 4/10 (2006.01); **C23C 4/12** (2006.01)

CPC (source: EP US)
C04B 35/505 (2013.01 - US); **C23C 4/11** (2016.01 - EP US); **C23C 4/134** (2016.01 - EP US); **Y02T 50/60** (2013.01 - US)

Citation (search report)
See references of WO 2012062547A1

Citation (examination)
MA X ET AL: "Low thermal conductivity thermal barrier coating deposited by the solution plasma spray process", SURFACE AND COATINGS TECHNOLOGY, ELSEVIER, AMSTERDAM, NL, vol. 201, no. 7, 20 December 2006 (2006-12-20), pages 4447 - 4452, XP024996008, ISSN: 0257-8972, [retrieved on 20061220], DOI: 10.1016/J.SURFCOAT.2006.08.095

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 RS SE SI SK SM TR

DOCDB simple family (publication)
EP 2453036 A1 20120516; CN 103201406 A 20130710; EP 2614173 A1 20130717; US 2013230659 A1 20130905; WO 2012062547 A1 20120518

DOCDB simple family (application)
EP 10190672 A 20101110; CN 201180054304 A 20111019; EP 11775935 A 20111019; EP 2011068225 W 20111019; US 201113884308 A 20111019