

Title (en)

PLASMA CHEMICAL METHOD FOR PRODUCING BLACK OXIDE CERAMIC COATINGS AND COATED ARTICLE

Title (de)

PLASMACHEMISCHES VERFAHREN ZUR HERSTELLUNG SCHWARZER OXIDKERAMIKSCHICHTEN UND ENTSPRECHEND BESCHICHTETER GEGENSTAND

Title (fr)

PROCÉDÉ PLASMA-CHIMIQUE DESTINÉ À FABRIQUER DES COUCHES EN CÉRAMIQUE OXYDÉE NOIRES ET OBJET REVÊTU CORRESPONDANT

Publication

EP 2857560 A1 20150408 (DE)

Application

EP 14184217 A 20140910

Priority

DE 102013110660 A 20130926

Abstract (en)

[origin: US2015083598A1] Plasma-chemical method for production of black oxide ceramic layers on aluminium, magnesium, titanium or alloys thereof and special materials containing these substances according to the process of anodic oxidation in aqueous electrolytes, wherein an electrolyte is used which contains iron and vanadium.

Abstract (de)

Plasmachemisches Verfahren zur Herstellung schwarzer Oxidkeramiksichten auf Aluminium, Magnesium, Titan oder deren Legierungen sowie diese Materialien enthaltende Sonderwerkstoffe nach dem Prozess der anodischen Oxidation in wässrigen Elektrolyten, wobei ein Elektrolyt verwendet wird, der Eisen- und Vanadium-haltig ist.

IPC 8 full level

C25D 11/10 (2006.01); **C25D 11/02** (2006.01); **C25D 11/06** (2006.01); **C25D 11/14** (2006.01); **C25D 11/26** (2006.01); **C25D 11/30** (2006.01); **C25D 11/16** (2006.01)

CPC (source: EP US)

C25D 11/026 (2013.01 - EP US); **C25D 11/06** (2013.01 - EP US); **C25D 11/10** (2013.01 - EP US); **C25D 11/14** (2013.01 - EP US); **C25D 11/26** (2013.01 - EP US); **C25D 11/30** (2013.01 - EP US); **C25D 11/16** (2013.01 - EP US)

Citation (applicant)

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- DD 299595 A7 19920430 - ZEISS CARL GMBH [DE]
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- US 4659440 A 19870421 - HRADCOVSKY RUDOLF [US]
- DE 102011055644 B4 20130529 - VER ZUR FOERDERUNG VON INNOVATIONEN DURCH FORSCHUNG ENTWICKLUNG UND TECHNOLOGIETRANSFER E V VEREIN I [DE]
- P. KURZE: "Dechema-Monographien", vol. 121, 1990, VCH VERLAGSGESELLSCHAFT, pages: 167 - 180
- G.P. WIRTZ ET AL.: "CERAMIC COATINGS BY ANODIC SPARK DEPOSITION", MATERIALS & MANUFACTU-RING PROCESSES, vol. 6, no. 1, 1991, pages 87 - 115, XP000934359

Citation (search report)

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- [Y] EP 2189170 A1 20100526 - BIOTRONIK VI PATENT AG [CH]
- [A] DE 10127770 A1 20021212 - VOLKSWAGEN AG [DE]
- [X] I. J. HWANG ET AL: "Formation of Black Ceramic Layer on Aluminum Alloy by Plasma Electrolytic Oxidation in Electrolyte Containing Na₂WO₄", MATERIALS TRANSACTIONS, vol. 53, no. 3, 1 January 2012 (2012-01-01), pages 559 - 564, XP055170972, ISSN: 1345-9678, DOI: 10.2320/matertrans.M2011263
- [Y] DATABASE WPI Week 201163, Derwent World Patents Index; AN 2011-L61540, XP002736251
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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 RS SE SI SK SM TR

Designated extension state (EPC)

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