

Title (en)

CARRIER APPLIED COATING LAYERS

Title (de)

TRÄGERAPPLIZIERTE ÜBERZUGSSCHICHTEN

Title (fr)

COUCHES DE REVETEMENT APPLIQUEES PAR SUPPORT

Publication

EP 1636023 A4 20100127 (EN)

Application

EP 04756014 A 20040623

Priority

- US 2004020268 W 20040623
- US 48067003 P 20030623

Abstract (en)

[origin: WO2005000575A1] The present invention provides a process for providing on the surface of a substrate an adherent phosphorous acid-based coating layer, the method comprising contacting said surface with a carrier conveying a coating composition comprising an acid selected from the group consisting of phosphoroic acids, organo-phosphoric acids, phosphonic acids, and mixtures thereof, at a sufficient temperature and for a sufficient time to bond at least a portion of the acid in the composition to the oxide surface.

IPC 8 full level

B05D 3/02 (2006.01); **B32B 15/04** (2006.01); **B32B 18/00** (2006.01); **C03C 17/00** (2006.01); **C03C 17/23** (2006.01); **C04B 37/00** (2006.01); **C23C 22/02** (2006.01); **C23C 22/48** (2006.01)

CPC (source: EP)

C03C 17/001 (2013.01); **C03C 17/23** (2013.01); **C23C 22/02** (2013.01); **C23C 22/48** (2013.01); **B05D 1/28** (2013.01); **B05D 3/02** (2013.01); **B05D 2201/00** (2013.01); **B05D 2202/35** (2013.01); **B05D 2350/63** (2013.01)

Citation (search report)

- [X] GAWALT E S ET AL: "Bonding organics to Ti alloys: Facilitating human osteoblast attachment and spreading on surgical implant materials", LANGMUIR, vol. 19, no. 1, 7 January 2003 (2003-01-07), AMERICAN CHEMICAL SOCIETY US, pages 200 - 204, XP002558865, Retrieved from the Internet <URL:<http://pubs.acs.org/doi/pdf/10.1021/la0203436>> [retrieved on 20091203]
- [X] GAWALT E S ET AL: "Self-assembly and bonding of alkanephosphonic acids on the native oxide surface of titanium", LANGMUIR, vol. 17, no. 19, 18 September 2001 (2001-09-18), AMERICAN CHEMICAL SOCIETY US, pages 5736 - 5738, XP002558866, Retrieved from the Internet <URL:<http://pubs.acs.org/doi/pdf/10.1021/la010649x>> [retrieved on 20091203]
- [X] SCHWARTZ J ET AL: "Cell attachment and spreading on metal implant materials", MATERIALS SCIENCE AND ENGINEERING C, vol. 23, no. 3, 3 March 2003 (2003-03-03), ELSEVIER LTD, GB, pages 395 - 400, XP002558867, Retrieved from the Internet <URL:http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TXG-47PFVCS-4&_user=987766&_rdoc=1&_fmt=&_orig=search&_sort=d&_docanchor=&view=c&_searchStrId=1139220356&_rer> [retrieved on 20091203]
- [X] GAWALT E S ET AL: "Enhanced bonding of organometallics to titanium via a titanium(III) phosphate interface", LANGMUIR, vol. 17, no. 21, 16 October 2001 (2001-10-16), AMERICAN CHEMICAL SOCIETY, US, pages 6743 - 6745, XP002558868, Retrieved from the Internet <URL:<http://pubs.acs.org/doi/pdf/10.1021/la010595r>> [retrieved on 20091203] & DATABASE COMPENDEX [online] ENGINEERING INFORMATION, INC., NEW YORK, NY, US; GAWALT E S ET AL: "Bonding organics to Ti alloys: Facilitating human osteoblast attachment and spreading on surgical implant materials", Database accession no. E2003057347652 & DATABASE COMPENDEX [online] ENGINEERING INFORMATION, INC., NEW YORK, NY, US; GAWALT E S ET AL: "Self-assembly and bonding of alkanephosphonic acids on the native oxide surface of titanium", Database accession no. E2002487242125 & DATABASE COMPENDEX [online] ENGINEERING INFORMATION, INC., NEW YORK, NY, US; SCHWARTZ J ET AL: "Cell attachment and spreading on metal implant materials", Database accession no. E2003097376630 & DATABASE COMPENDEX [online] ENGINEERING INFORMATION, INC., NEW YORK, NY, US; GAWALT E S ET AL: "Enhanced bonding of organometallics to titanium via a titanium(III) phosphate interface", Database accession no. E2002487242060
- See references of WO 2005000575A1

Citation (examination)

WO 2004072120 A2 20040826 - UNIV PRINCETON [US], et al

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 PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005000575 A1 20050106; CA 2530640 A1 20050106; CA 2530640 C 20130813; EP 1636023 A1 20060322; EP 1636023 A4 20100127; JP 2007521132 A 20070802; JP 5114057 B2 20130109

DOCDB simple family (application)

US 2004020268 W 20040623; CA 2530640 A 20040623; EP 04756014 A 20040623; JP 2006517614 A 20040623