

Title (en)

FUNCTIONAL COATINGS ENHANCING CONDENSER PERFORMANCE

Title (de)

FUNKTIONELLE BESCHICHTUNGEN MIT VERBESSERUNG DER KONDENSATORLEISTUNG

Title (fr)

REVÊTEMENTS FONCTIONNELS, AMÉLIORANT LES PERFORMANCES DE CONDENSEUR

Publication

EP 3343164 A1 20180704 (EN)

Application

EP 17209826 A 20171221

Priority

US 201615394268 A 20161229

Abstract (en)

Coatings for enhancing performance of materials surfaces, methods of producing the coating and coated substrates, and coated condensers are disclosed herein. More particularly, exemplary embodiments provide chemical coating materials useful for coating condenser components.

IPC 8 full level

F28F 13/18 (2006.01); **B05D 1/18** (2006.01); **B05D 7/14** (2006.01)

CPC (source: EP)

F28F 13/182 (2013.01); **F28F 13/187** (2013.01); **B05D 5/083** (2013.01); **B05D 2202/45** (2013.01); **B05D 2350/65** (2013.01);
F28F 2245/00 (2013.01); **F28F 2260/00** (2013.01)

Citation (applicant)

- A. K. DAS; H. P. KILTY, MARTO, ASME J. HEAT TRANSFER, vol. 7, 2000, pages 109
- B. J. ZHANG; K. J. KIM; H. K. YOON, BIOINSP. BIOMIM., vol. 7, 2012, pages 036011
- C. Y. LEE; B. J. ZHANG; J. Y. PARK; K. J. KIM, INT. J. HEAT MASS TRANSFER, vol. 55, 2012, pages 2151
- F. C. WANG; F. YANG; Y. P. ZHAO, APPL. PHYS. LETT., vol. 98, 2011, pages 053112
- GU, C. ET AL.: "Micro/Nanobinary Structure of Silver Films on Copper Alloys with Stable Water-Repellent Property under Dynamic Conditions", LANGMUIR, vol. 25, no. 20, 2009, pages 1299 - 12307
- ZHANG, B.J. ET AL.: "Dropwise steam condensation on various hydrophobic surfaces: Polyphenylene sulfide (PPS), polytetrafluoroethylene (PTFE) and self-assembled micro/nano silver (SAMS)", INT. J. HEAT AND MASS TRANS., vol. 89, 2015, pages 353 - 358
- D. K. OWEN; R. C. WENDT, APPL. POLYMER SCI., vol. 13, 1967, pages 1741
- Q. BAOJIN; Z. LI; X. HONG; S. YAN, EXP. THERM. FLUID SCI., vol. 35, 2011, pages 211
- Y. NAM; E. AKTINOL; V. K. DHIR; Y. S. JU, INT. J. HEAT MASS TRANSFER, vol. 54, 2011, pages 1572

Citation (search report)

- [XAI] US 2010143741 A1 20100610 - BELL STEVEN ERNEST JOHN [GB], et al
- [A] WO 2014064450 A1 20140501 - OXFORD NANOSYSTEMS [GB]
- [XDAI] BONG JUNE ZHANG ET AL: "Dropwise steam condensation on various hydrophobic surfaces: Polyphenylene sulfide (PPS), polytetrafluoroethylene (PTFE), and self-assembled micro/nano silver (SAMS)", INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER., vol. 89, 3 June 2015 (2015-06-03), GB, pages 353 - 358, XP055467638, ISSN: 0017-9310, DOI: 10.1016/j.ijheatmasstransfer.2015.05.060
- [XDAI] CHANGDONG GU ET AL: "Micro/Nanobinary Structure of Silver Films on Copper Alloys with Stable Water-Repellent Property under Dynamic Conditions", LANGMUIR, vol. 25, no. 20, 20 October 2009 (2009-10-20), US, pages 12299 - 12307, XP055467647, ISSN: 0743-7463, DOI: 10.1021/la902936u

Cited by

CN112095098A

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)

BA ME

DOCDB simple family (publication)

EP 3343164 A1 20180704

DOCDB simple family (application)

EP 17209826 A 20171221