Title (en)

Ultra-thin water and oil repellent layer, manufacturing method and use in watchmaking as epilame

Title (de)

Hydrophobe und oleophobe ultradünne Schicht, Herstellungsverfahren und Anwendung beim Uhrenbau als Epilame

Title (fr)

Couche ultra-mince hydrophobe et oléophobe, procédé de fabrication et utilisation en horlogerie comme épilame

Publication

**EP 1927648 A1 20080604 (FR)**

Application

**EP 06405504 A 20061201**

Priority

EP 06405504 A 20061201

Abstract (en)

Ultra-thin hydrophobic layer and oleophobic layer formed by self-assembly on a solid substrate surface of an aromatic compound (I), is claimed. Ultra-thin hydrophobic layer and oleophobic layer formed by self-assembly on a solid substrate surface of an aromatic compound of formula (A-B 1) (I), is claimed. A : dihydroxy substituted aromatic compound of formula (II); Z : C or N +>; X : C-H or C-L; L : electron attractor group comprising F, Cl, Br, I, CF 3, NO 2 and N(CH 3) 3 +>; either Y 1H or CH3; or XY 15-6 membered heterocyclic atom; T : NH, CO, CONH or NH 2 +>U 1 ->; U 1 ->soluble anion containing F ->, Cl ->, Br ->, I, OH ->, NO 3 ->, HSO 4 ->, SO 4 2->, HCO 3 -> or SCN ->; and B 11-20C aliphatic linear alkyl group substituted by F. An independent claim is included for a preparation of the ultra-thin layer comprising immersing the substrate in a solution containing (I) in water or its mixture and protic solvent. [Image] [Image] [Image].

Abstract (fr)

L'invention concerne une nouvelle couche ultra-mince hydrophobe et oléophobe formée par auto-assemblage sur une surface de substrat solide de composés de formule générale ################ A-B dans laquelle A représente un groupe de formule dans laquelle Z représente C ou N + , X représente C-H ou C-L, L étant un groupe électroattracteur choisi parmi F, Cl, Br, I, CF 3 , NO 2 et N(CH 3 ) 3 + , Y représente H ou CH 3 , ou Y forme avec X un hétérocycle de 5 ou 6 atomes, T représente NH, CO, CONH ou NH 2 + U - , U - étant un anion soluble, tel que par exemple F - , Cl - , Br - , I, OH - , NO 3 - , HSO 4 - , SO 4 2- , CO 3 2- , HCO 3 - ou SCN - , et B représente un groupe alkyl linéaire aliphatique C 1 -C 20 non substitué ou substitué partiellement ou complètement par F, ainsi qu'un procédé pour préparer cette couche et son utilisation comme épilame.

IPC 8 full level

**C10M 133/06** (2006.01); **C10M 133/16** (2006.01); **C10M 133/20** (2006.01); **C10M 133/40** (2006.01); C10N 40/06 (2006.01)

CPC (source: EP US)

**C10M 105/20** (2013.01 - EP US); **C10M 105/54** (2013.01 - EP US); **C10M 105/62** (2013.01 - EP US); **C10M 105/68** (2013.01 - EP US); **C10M 105/70** (2013.01 - EP US); C10M 2207/085 (2013.01 - EP US); C10M 2215/0425 (2013.01 - EP US); C10M 2215/0806 (2013.01 - EP US); C10M 2215/2203 (2013.01 - EP US); C10N 2040/06 (2013.01 - EP US); C10N 2050/02 (2013.01 - EP US); Y10T 428/12556 (2015.01 - EP US); Y10T 428/265 (2015.01 - EP US); Y10T 428/31511 (2015.04 - EP US); Y10T 428/31663 (2015.04 - EP US); Y10T 428/31678 (2015.04 - EP US); Y10T 428/31725 (2015.04 - EP US); Y10T 428/31855 (2015.04 - EP US); Y10T 428/31938 (2015.04 - EP US)

Citation (search report)

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AL BA HR MK RS

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