

Title (en)

METHOD FOR TREATING A SURFACE OF A POLYMERIC PART BY MULTI-ENERGY IONS

Title (de)

VERFAHREN ZUR BEHANDLUNG EINER OBERFLÄCHE EINES POLYMERTTEILS MIT MULTIENERGETISCHEN IONEN

Title (fr)

PROCEDE DE TRAITEMENT D'UNE SURFACE D'UNE PIECE EN POLYMERES PAR DES IONS MULTI-ENERGIES.

Publication

EP 2591139 A1 20130515 (FR)

Application

EP 11741627 A 20110701

Priority

- FR 1002868 A 20100708
- FR 2011051547 W 20110701

Abstract (en)

[origin: WO2012004495A1] Method for treating at least one surface of a part made of a bulk polymer into which multi-energy ions X⁺ and X²⁺ are implanted simultaneously, where X is the atomic symbol chosen from the list consisting of helium (He), nitrogen (N), oxygen(O), neon (Ne), argon (Ar), krypton (Kr), and xenon(Xe) and in which the RX ratio, where RX = X⁺/X²⁺ with X⁺ and X²⁺ being expressed in atomic percentages, is less than or equal to 100, for example less than 20. As a result of the very large reductions in the surface resistivity of the parts thus treated, antistatic properties or even electrostatic charge dissipation properties appear. As an example, the X⁺ and X²⁺ ions are supplied by an ECR source.

IPC 8 full level

C23C 14/48 (2006.01); **A61F 9/00** (2006.01); **A61J 1/00** (2006.01); **A61L 2/16** (2006.01); **A61M 15/00** (2006.01); **B65D 1/00** (2006.01); **C08J 7/18** (2006.01); **H01J 37/317** (2006.01)

CPC (source: EP US)

C23C 14/48 (2013.01 - EP US); **H01J 37/3171** (2013.01 - EP US); **H01J 2237/316** (2013.01 - EP US); **H01J 2237/3165** (2013.01 - EP US)

Citation (search report)

See references of WO 2012004495A1

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)

WO 2012004495 A1 20120112; CN 102985590 A 20130320; EP 2591139 A1 20130515; FR 2962448 A1 20120113; FR 2962448 B1 20130405; JP 2013530290 A 20130725; US 2013112553 A1 20130509

DOCDB simple family (application)

FR 2011051547 W 20110701; CN 201180033768 A 20110701; EP 11741627 A 20110701; FR 1002868 A 20100708; JP 2013517464 A 20110701; US 201113808815 A 20110701