

Title (en)

METHOD FOR NANO-STUCTURING POLMER MATERIALS USING PULSED LASER RADIATION IN A REACTIVE ATMOSPHERE

Title (de)

VERFAHREN ZUR NANOSTRUKTURIERUNG POLYMERER MATERIALIEN MIT GEPUHLSTER LASERSTRÄHLUNG IN REAKTIVER ATMOSPHÄRE

Title (fr)

PROCÉDÉ DE NANOSTRUCTURATION DE MATIÈRES POLYMÈRES À L'AIDE D'UN RAYONNEMENT LASER PULSÉ DANS UNE ATMOSPHÈRE RÉACTIVE

Publication

EP 2906388 A2 20150819 (DE)

Application

EP 13805737 A 20131010

Priority

- DE 102012019919 A 20121011
- DE 2013000584 W 20131010

Abstract (en)

[origin: WO2014056479A2] The invention relates to a method for producing a surface comprising a solid polymer material, said surface having surface structures with measurements in the sub-micro range. According to the invention, the non-treated surface on which the structures are to be produced and which can be reached by the laser radiation, is scanned once or several times using pulsed laser radiation in a reactive gas atmosphere in such a manner that adjacent light flecks of the laser radiation are next to each other without an interspace or overlap and a defined range of a predetermined relation between method parameters is maintained, said surfaces being therefor chemically modified.

IPC 8 full level

B23K 26/00 (2014.01); **B23K 26/12** (2014.01)

CPC (source: EP US)

A61L 27/34 (2013.01 - EP US); **B23K 26/0006** (2013.01 - EP US); **B23K 26/0622** (2015.10 - EP US); **B23K 26/126** (2013.01 - EP US);
B23K 26/3584 (2018.07 - EP US); **B29C 59/16** (2013.01 - US); **A61F 2002/0081** (2013.01 - EP US); **A61L 2400/18** (2013.01 - EP US);
B23K 2103/16 (2018.07 - EP US); **B23K 2103/42** (2018.07 - EP US); **B23K 2103/50** (2018.07 - EP US); **B23K 2103/52** (2018.07 - EP US)

Citation (search report)

See references of WO 2014056479A2

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)

DE 102012019919 A1 20140206; EP 2906388 A2 20150819; US 2015367558 A1 20151224; WO 2014056479 A2 20140417;
WO 2014056479 A3 20140605

DOCDB simple family (application)

DE 102012019919 A 20121011; DE 2013000584 W 20131010; EP 13805737 A 20131010; US 201314434959 A 20131010