

Title (en)

METHOD AND DEVICE FOR GENERATING NANOSTRUCTURES

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ERZEUGUNG VON NANOSTRUKTUREN

Title (fr)

PROCEDE ET DISPOSITIF DE GENERATION DE NANOSTRUCTURES

Publication

EP 1307598 B1 20050105 (FR)

Application

EP 01960844 A 20010727

Priority

- FR 0102482 W 20010727
- FR 0009950 A 20000728

Abstract (en)

[origin: WO0210462A1] The invention concerns a method for generating nanostructures to obtain on a zone of a metal workpiece (10) a nanostructure layer with a specific thickness, characterised in that it comprises: a step which consists in shot peening on an impact point of the zone of the surface of the workpiece (10) to be treated, for a specific time interval, at a specific speed and under variable angles of incidence at the same impact point a specific quantity of perfectly spherical balls (22), having specific dimensions and being permanently re-used during the shot peening; repeating the preceding step by displacing the impact point so that the whole set of impact points covers the entire surface of the workpiece to be treated; a step which consists in treating by diffusion of chemical compounds in the nanostructure layer produced during the nanostructure generating step.

IPC 1-7

C21D 7/06; **C23C 8/02**

IPC 8 full level

C21D 7/06 (2006.01); **C23C 8/02** (2006.01)

CPC (source: EP US)

C21D 7/06 (2013.01 - EP US); **C23C 8/02** (2013.01 - EP US); **C21D 2201/03** (2013.01 - EP US); **Y10T 29/479** (2015.01 - EP US)

Designated contracting state (EPC)

BE CH DE FR GB LI

DOCDB simple family (publication)

WO 0210462 A1 20020207; AU 8224101 A 20020213; CN 1176228 C 20041117; CN 1336445 A 20020220; DE 60108252 D1 20050210; DE 60108252 T2 20060126; EP 1307598 A1 20030507; EP 1307598 B1 20050105; FR 2812285 A1 20020201; FR 2812285 B1 20030207; US 2004250920 A1 20041216; US 2007006943 A1 20070111; US 7300622 B2 20071127; US 7691211 B2 20100406

DOCDB simple family (application)

FR 0102482 W 20010727; AU 8224101 A 20010727; CN 01122981 A 20010727; DE 60108252 T 20010727; EP 01960844 A 20010727; FR 0009950 A 20000728; US 34300903 A 20030505; US 53231406 A 20060915