

Title (en)

MECHANICAL METHOD FOR GENERATING NANOSTRUCTURES AND MECHANICAL DEVICE FOR GENERATING NANOSTRUCTURES

Title (de)

MECHANISCHES VERFAHREN UND VORRICHTUNG ZUM ERZEUGEN VON NANOSTRUKTUREN

Title (fr)

PROCEDE MECANIQUE DE GENERATION DE NANOSTRUCTURES ET DISPOSITIF MECANIQUE DE GENERATION DE NANOSTRUCTURES

Publication

**EP 1307599 B1 20040421 (FR)**

Application

**EP 01963035 A 20010727**

Priority

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- US 99490000 A 20000728

Abstract (en)

[origin: WO0210463A1] The invention concerns a mechanical method for generating nanostructures to obtain on a metal workpiece surface a nanostructure layer with a specific thickness, characterised in that it comprises: a step which consists in displacing in a circular movement a quantity of perfectly spherical balls (22) arranged in a closed chamber suited to the size of the balls whereof at least one of the walls bears or is the workpiece to be treated (10); a step which consists in imparting a vibrating motion along a direction perpendicular to the circular movement of the chamber bearing or constituting the workpiece to be treated; the speed of the circular movement and the frequency and amplitude of the vibrating motion being determined on the basis of the physical characteristics of the balls to impart thereto a kinetic energy sufficient to generate nanostructures on the material of the workpiece to be treated.

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