

Title (en)

METHOD FOR PRODUCING A COMPONENT COMPRISING NANOMETRIC MULTILAYERS FOR OPTICAL USES AND COMPONENT PRODUCED ACCORDING TO SAID METHOD

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES BAUTEILS MIT NANOMETER-MULTISCHICHTEN FÜR OPTISCHE ANWENDUNGEN SOWIE NACH DIESEM VERFAHREN HERGESTELLTES BAUTEIL

Title (fr)

PROCEDE POUR PRODUIRE UN COMPOSANT PRESENTANT DES MULTICOUCHES NANOMETRIQUES QUI EST DESTINE A DES APPLICATIONS OPTIQUES ET COMPOSANT PRODUIT SELON CE PROCEDE

Publication

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Application

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Abstract (en)

[origin: WO2006074642A1] The invention relates to a method for producing a component comprising a nanometric multilayer for optical uses, in particular X-ray optics, the component being preferably a single-crystalline silicon, on which the nanometric multilayer is produced by means of individual layers that are applied using a sol-gel coating process. The aim of the invention is to provide a cost-effective method, according to which the nanometric multilayer can be produced from a single material, in particular from aluminium oxide with a predefinable thickness modulation in said multilayer. To achieve this, the multilayer is produced by structuring successive layers of the same material with the smallest possible layer thickness, each individual layer being produced by the immersion of the component for a short time in a sol-gel bath, or by spraying a sol-gel solution on the component, followed by a drying or annealing process at a predefined temperature in an ambient atmosphere.

IPC 8 full level

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