

Title (en)

METHOD FOR PRODUCING AT LEAST ONE SMALL OPENING IN A LAYER ON A SUBSTRATE AND COMPONENTS PRODUCED ACCORDING TO SAID METHOD

Title (de)

VERFAHREN UND HERSTELLUNG WENIGSTENS EINER KLEINEN ÖFFNUNG IN EINER SCHICHT AUF EINEM SUBSTRAT UND DAMIT HERGESTELLTE BAUELEMENTE

Title (fr)

PROCEDE POUR FA ONNER AU MOINS UNE PETITE OUVERTURE DANS UNE COUCHE D'UN SUBSTRAT ET ELEMENTS DE CONSTRUCTION FABRIQUES SELON CE PROCEDE

Publication

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Application

**EP 03783954 A 20030804**

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Abstract (en)

[origin: WO2004014785A2] The invention relates to a method for producing at least one small opening (10) in a layer on a substrate (1), in particular a semiconductor substrate. The substrate (1) is provided on its upper face (2) with at least one pointed recess (6) that has a tip section (4) and lateral walls (5) and the upper face (2) of the substrate (1) is covered at least in the region of the recess (6) with a layer (7) consisting of an etchable material. According to the invention, the opening (10) is produced according to an anisotropic plasma etching method that is adapted to the material of the layer (7), by the selective opening of said layer (7) starting from the upper face (2). The material, etching gases and the etching parameters are selected in such a way that a higher etching rate is achieved in the region of a tip section (9) of the layer (7), which covers the tip section (4) of the substrate (1) than in the region of the lateral walls (8) of the layer (7), which cover the lateral walls (5) of the substrate (1). The invention also relates to calibration standards, cantilever beams and other components produced according to said method.

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