

Title (en)  
METHOD OF PRODUCING A MICROSYSTEM STRUCTURE WITH LATERAL GAPS AND CORRESPONDING MICROSYSTEM STRUCTURE

Title (de)  
HERSTELLUNGSVERFAHREN EINER MIKROSTRUKTUR MIT SEITENLUFTSPALTEN UND DEMENTSPRECHENDE MIKROSTRUKTUR

Title (fr)  
PROCEDE DE REALISATION DE STRUCTURE DE MICROSYSTEME A ENTREFERS LATERAUX ET STRUCTURE DE MICROSYSTEME CORRESPONDANTE

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Application  
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Abstract (en)  
[origin: WO03100969A1] The invention relates to a method of producing a microsystem structure with lateral gaps and the corresponding microsystem structure. The inventive method consists in: (a) depositing a first sacrificial layer (CS1) on the substrate (S); (b) forming a structural element (SE), add-on structure, on said sacrificial layer, which is intended to form a mobile add-on structure with two degrees of freedom (YY, XX); (c) covering the free surface of the structural element (SE) with a second sacrificial layer of thickness  $e = dg$  which is equal to the linear dimension of the gap; (d) covering the first sacrificial layer (CS1) and the free surface of the second sacrificial layer (CS2) with a layer of material (SM) which is intended to form another add-on structure; and (e) etching the second sacrificial layer (CS2) and subsequently the first sacrificial layer (CS1) so as to prevent, at least partially, any contact between the structural element (SE) in the direction of the first and second degree of freedom and any other add-on structure and the substrate (S), in order to produce lateral gaps having a width that is essentially equal to the thickness of the sacrificial layer (CS2). The invention is suitable for the production of microsystem structures and components containing same.

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