

Title (en)  
METHOD FOR PATTERNING A SURFACE WITH A METAL BY CONTROLLING THE GENERATION OF CRACKS OR GAPS IN A DEPOSITED METAL LAYER

Title (de)  
VERFAHREN ZUR STRUKTURIERUNG EINER OBERFLÄCHE MIT EINEM METALL DURCH STEUERUNG DER ERZEUGUNG VON RISSEN ODER SPALTEN IN EINER ABGESCHIEDENEN METALLSCHICHT

Title (fr)  
PROCÉDÉ DE FORMATION DE MOTIFS SUR UNE SURFACE EN UTILISANT UN MÉTAL ET EN CONTRÔLANT LA GÉNÉRATION DE FISSURES OU D'ESPACES DANS UNE COUCHE MÉTALLIQUE DÉPOSÉE

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Application  
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Abstract (en)  
[origin: WO2019164443A1] The present invention relates to a method for patterning a surface with a metal by controlling the generation of cracks or gaps in a deposited metal layer, comprising the steps a) providing a substrate (101), optionally having at least one layer (102) provided thereon b) applying at least one layer of photoresist (104) on a surface (103) of the substrate (101) or of the at least one layer (102), c) baking the photoresist for removing excess solvent d) creating a pattern (110) in said photoresist to expose at least one portion of the surface (103), said pattern (110) comprising at least one edge (109) between the photoresist and the exposed at least one portion of the surface (103), e) depositing a metal on said photoresist and said at least one portion of the surface to form a metal layer (106), said metal having a temperature at deposition that is higher than a temperature of the substrate (101), f) cooling the deposited metal through contact with the exposed surface and the photoresist layer(104), thereby causing a contraction of the deposited metal and generating at least one crack or gap through the metal layer (106) at the edge (109), g) applying a solvent through the at least one crack or gap for removing the photoresist and thereby removing the metal layer (106) deposited thereon but leaving the metal deposited on the exposed surface (103).

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