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(54) Title (EN): PLATED MATERIAL AND MANUFACTURING METHOD THEREFOR

(54) Title (FR): MATÉRIAU PLAQUÉ ET SON PROCÉDÉ DE FABRICATION

(54) Title (JA): めっき材及びその製造方法

(57) Abstract:

(EN): The present invention addresses the problem of low adhesion between a plating layer and a substrate due to an interface between the plating layer and the substrate. A plated material (5) includes: a substrate (51) that includes one or more substrate metallic elements; and a plating layer (52) that is formed directly on the substrate (51). The plating layer (52) includes at least a first plating layer metallic element, and a second plating layer metallic element that is different from the first plating layer metallic element. The second plating layer metallic element is the same metallic element as at least one of the one or more substrate metallic elements. In a thickness direction of the plating layer (52), the proportion of the second plating layer metallic element in the plating layer (52) continuously decreases in accordance with greater distance away from the substrate (51). Crystal grains of an alloy that includes at least the first and the second plating layer metallic elements are dispersed in the plating layer (52), such that no clear interface is produced between the substrate (51) and the plating layer (52).

(FR): La présente invention aborde le problème de faible adhérence entre une couche de placage et un substrat en raison d'une interface entre la couche de placage et le substrat. Un matériau plaqué (5) comprend : un substrat (51) qui comprend un ou plusieurs éléments métalliques de substrat ; et une couche de placage (52) qui est formée directement sur le substrat (51). La couche de placage (52) comprend au moins un premier élément métallique de couche de placage et un second élément métallique de couche de placage qui est différent du premier élément métallique de couche de placage. Le second élément métallique de couche de placage est le même élément métallique qu'au moins un élément parmi le ou les éléments métalliques de substrat. Dans le sens de l'épaisseur de la couche de placage (52), la proportion du second élément métallique de couche de placage dans la couche de placage (52) diminue en continu en fonction d'une augmentation de la distance par rapport au substrat (51). Des grains cristallins d'un alliage qui comprend au moins les premier et second éléments métalliques de couche de placage sont dispersés dans la couche de placage (52), de sorte qu'aucune interface claire ne soit produite entre le substrat (51) et la couche de placage (52).

(JA): めっき層と基材の界面に起因してめっき層と基材の密着性が低いという課題がある。めっき材(5)は、1以上の基材金属元素を含む基材(5 1)と、基材(5 1)の直上に形成されためっき層(5 2)を含む。めっき層(5 2)が、少なくとも、第1のめっき層金属元素と、第1のめっき層金属元素とは異なる第2のめっき層金属元素を含む。第2のめっき層金属元素が、1以上の基材金属元素の少なくとも一つと同一の金属元素である。めっき層(5 2)の厚み方向において基材(5 1)から離間するに依りてめっき層(5 2)における第2のめっき層金属元素の割合が連続的に減少する。基材(5 1)とめっき層(5 2)の間に明確な界面が生じないように、少なくとも第1及び第2のめっき層金属元素を含む合金の結晶粒がめっき層5 2に分布する。

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