Title (en)
METHOD FOR COATING A SUBSTRATE CONTAINING COBALT, NICKEL AND/OR IRON WITH A CORROSION-RESISTANT LAYER

Title (de)
VERFAHREN ZUM BESCHICHTEN EINES KOBALT-, NICKEL- UND/ODER EISENHALTIGEN SUBSTRATS MIT EINER KORROSIONSBESTÄNDIGEN SCHICHT

Title (fr)
PROCÉDÉ POUR RECOUVRIR UN SUBSTRAT À BASE DE COBALT, DE NICKEL ET/OU DE FER D'UNE COUCHE RÉSISTANT À LA CORROSION

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Abstract (en)
[origin: WO2013178216A1] The invention relates to a cost-efficient method for corrosion-proofing substrates (components) made of materials containing cobalt, nickel and/or iron, in which cracking in the material and in a corrosion-proofing layer can be avoided. For this purpose a slurry containing aluminium is applied to a substrate (1) and the substrate (1) together with the applied slurry is then subjected to a brief annealing of the surface layer at reduced temperature. Due to the heating of the surface layer of the substrate and of the slurry during the annealing of the surface layer, an exothermic reaction between the aluminium and the substrate metal (iron or nickel) takes place on the surface of the substrate (1), so that aluminide phases are formed which produce an aluminide diffusion layer (4) on the substrate (1). Above this layer remains a residual layer (6) of unused slurry.

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C23C 24/10 (2006.01)

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