Title (en)

METHOD FOR ELECTROLYTICALLY DEPOSITING A CHROMIUM OR CHROMIUM ALLOY LAYER ON AT LEAST ONE SUBSTRATE

Title (de)

VERFAHREN ZUR ELEKTROLYTISCHEN ABSCHEIDUNG EINER CHROM- ODER CHROMLEGIERUNGSSCHICHT AUF MINDESTENS EINEM SUBSTRAT

Title (fr)

PROCÉDÉ DE DÉPÔT ÉLECTROLYTIQUE D'UNE COUCHE DE CHROME OU D'ALLIAGE DE CHROME SUR AU MOINS UN SUBSTRAT

Publication

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Application

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Abstract (en)

[origin: WO2018185154A1] The present invention relates to a method for electrolytically depositing a chromium or chromium alloy layer on at least one substrate, the method comprising the steps (a) providing an aqueous deposition bath with a pH in the range from 4.1 to 7.0, - comprising trivalent chromium ions, - comprising 0 mg/L to 200 mg/L hexavalent chromium, based on the total volume of the deposition bath, and - not comprising boron containing compounds, (b) providing the at least one substrate and at least one anode, (c) immersing the at least one substrate in the aqueous deposition bath and ¨applying an electrical direct current such that the chromium or chromium alloy layer is deposited on the at least one substrate, wherein the at least one substrate forms the cathode having a total cathodic current density and the at least one anode having a total anodic current density, with the proviso that - the total anodic current density is 6 A/dm2 or more, - the total cathodic current density is 18 A/dm2 or more, - the at least one substrate and the at least one anode are present in the deposi- tion bath such that the trivalent chromium ions are in contact with the at least one anode.

IPC 8 full level

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