Title (en)

PROCESS AND DEVICE FOR ELECTROLYTIC PRECIPITATION OF METALLIC LAYERS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ELEKTROLYTISCHEN ABSCHEIDUNG VON METALLSCHICHTEN

Title (fr)

PROCEDE ET DISPOSITIF DE PRECIPITATION PAR ELECTROLYSE DE COUCHES METALLIQUES

Publication

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Application

EP 95904386 A 19941223

Priority

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Abstract (en)

[origin: US5976341A] PCT No. PCT/DE94/01542 Sec. 371 Date Apr. 22, 1996 Sec. 102(e) Date Apr. 22, 1996 PCT Filed Dec. 23, 1994 PCT Pub. No. WO95/18251 PCT Pub. Date Jul. 6, 1995A process and apparatus for electrolytically depositing a uniform metal layer onto a workpiece is provided. The workpiece, for example a circuit board, serves as a cathode. The anode is insoluble and dimensionally stable. Both anode and cathode are immersed in a plating solution contained in an electrolytic container. The solution includes (a) ions of the metal to be deposited on the workpiece, (b) an additive substance for controlling physical-mechanical properties of the metal to be deposited, such as brightness, and (c) an electro-chemically reversible redox couple forming oxidizing compounds when contacting the anode. A metal-ion generator is provided, supplying metal parts of the metal to be deposited onto the workpiece; The plating solution is circulated between the container and the ion generator for maintaining a reaction between the oxidizing compounds and the metal parts for forming metal ions. The plating solution is controllably re-circulated into the container so that a low concentration of the oxidizing compounds is present in the plating solution adjacent to the workpiece.

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