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(54) **Title:** COMPOSITIONS AND METHODS FOR THE ELECTRODEPOSITION OF NANOTWINNED COPPER

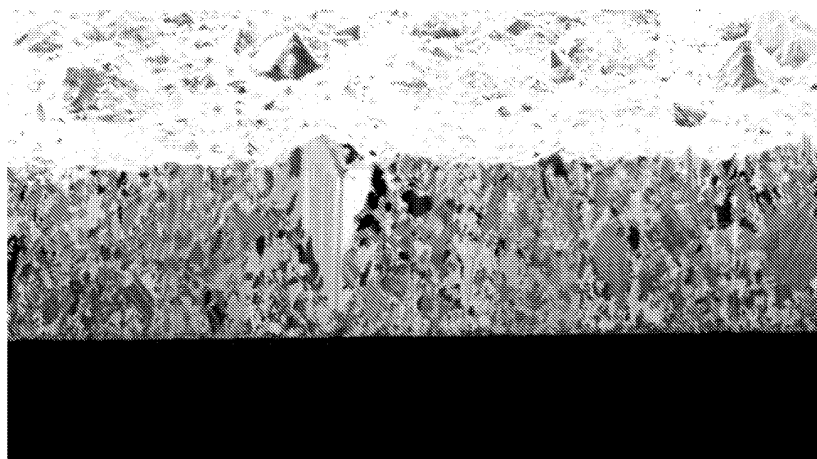


Fig. 1

(57) **Abstract:** A copper electroplating solution comprising a copper salt, a source of halide ions, and a linear or branched polyhydroxyl. The copper electroplating solution is used to deposit copper having a high density of nanotwinned columnar copper grains on a substrate. The linear or branched polyhydroxyl may comprise a reaction product between 2,3 -epoxy- 1 -propanol and aminic alcohol or ammonium alcohol.

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