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Controlling factors affecting the stability and rate of electroless copper plating

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The main purpose of this article is to focus on the electroless copper deposition from EDTA bath which is used in printed circuit boards (PCB) and very large scale integrated circuits (VLSI). The effect of the bath operating conditions and bath additives on plating rate, bath stability and morphology of the coating has been studied. It has been found that the organic additive does not stabilize the bath but enhances the plating rate. The additives were found to modify the structure of the deposits with the production of small grain size, dense and tightly adherent copper deposit.

Keywords: Printed circuit boards, bath additives, stability, morphology, grain size.