

PROXIMITY PROCESSING USING CONTROLLED BATCH VOLUME WITH AN INTEGRATED PROXIMITY HEAD

ABSTRACT OF THE DISCLOSURE

Methods for plating substrates are herein defined. One method includes providing a plating assembly having a plating source in a plating fluid and a plating facilitator in the plating fluid, and defining a plating meniscus between the plating source and the plating facilitator. The plating meniscus being contained in a path of the plating assembly. The method further includes traversing a substrate through the path of the plating assembly. The substrate being charged so that plating ions are attracted to a surface of the substrate when the plating meniscus is present on the surface of the substrate, wherein the substrate traversing through the path of the plating assembly enables plating across the surface of the substrate. And, inducing a uniform charge in the path where the plating meniscus is formed, such that charge from the plating source is substantially uniformly directed toward the plating facilitator as the substrate that is charged moves through the path of the plating assembly.

[Figure 3A]