# METHOD AND APPARATUS FOR MATERIAL DEPOSITION


## ABSTRACT OF THE DISCLOSURE

A method and an apparatus are provided for selective heating of a surface of a wafer exposed to an electroless plating solution. Selective heating by a radiant energy source causes a temperature increase at an interface between the wafer surface and the electroless plating solution. This temperature increase causes a plating reaction to occur at the wafer surface. Thus, material is deposited on the wafer surface through an electroless plating reaction that is initiated and controlled by varying the temperature of the wafer surface using an appropriately defined radiant energy source. Additionally, a planar member can be positioned over and proximate to the wafer surface to entrap electroless plating solution between the planar member and the wafer surface. Material deposited through the plating reactions forms a planarizing layer that conforms to a planarity of the planar member.


Figure 2A