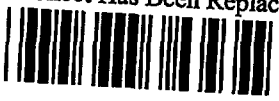
Abstract of the Disclosure

The present invention provides a method and apparatus for selective PVD conductor fill in IC structure incorporating an optical end point detecting mechanism. The present invention utilizes a high density plasma source and the technique of bias sputtering of film layers formed on a substrate to eliminate crowning or cusping problems associated with deposition on the field of a patterned substrate to provide selective deposition of a conductive material in a trench, hole or via formed on the substrate. The use of a high density plasma source and separate bias power sources applied to the target and the substrate support member (and capacitively coupled to the substrate) enable the target to be sputtered and the substrate to be etched, either simultaneously or in alternating steps.

This Sheet Has Been Replaced



THIS SHEET HAS BEEN REPLACED