

POLISHING SYSTEMS AND METHODS FOR REMOVING CONDUCTIVE
MATERIAL FROM MICROELECTRONIC SUBSTRATES

ABSTRACT OF THE DISCLOSURE

Polishing systems and methods for removing conductive material (e.g., noble metals) from microelectronic substrates are disclosed herein. Several embodiments of the methods include forming an aperture in a substrate material, disposing a conductive material on the substrate material and in the aperture, and disposing a fill material on the conductive material. The fill material at least partially fills the aperture. The substrate material is then polished to remove at least a portion of the conductive material and the fill material external to the aperture during which the fill material substantially prevents the conductive material from smearing into the aperture during polishing the substrate material.

(Figure 1A)