APPARATUS AND METHODS TO CLEAN COPPER CONTAMINATION ON WAFER EDGE

ABSTRACT

An apparatus is provided that cleans outer edges of semiconductor substrates. Under the first embodiment a brush is mounted on the substrate surface around its periphery, chemicals are fed to the substrate surface through a hollow core on which the cleaning brush is mounted. The surface being cleaned rotates at a relatively high speed causing the chemicals deposited on this surface (by the brush) to remain in the edge of the surface. Under the second embodiment a porous roller is mounted between a chemical reservoir and the surface being cleaned, the surface being cleaned rotates at a relatively high speed. The chemicals deposited by the interfacing porous roller onto the surface being cleaned therefore remain at the edge of this surface thereby causing optimum cleaning action of the edge of the surface. After contaminants are removed as above, the surface can be further cleaned using DI water.

Fig. 1