METHOD OF POST ETCH POLYMER RESIDUE REMOVAL

ABSTRACT

A system and method for removing post-etch polymer residue from a surface of a substrate includes identifying a dry flash chemistry for removing the post-etch polymer residue from the surface of the substrate. The dry flash chemistry is configured to selectively remove the post-etch polymer residue left behind by an etch operation in a region where a feature was formed through a low-k dielectric film layer. The identified dry flash chemistry is applied using a short flash process to remove at least a portion of the post-etch polymer residue while minimizing the damage to the dielectric film layer. A wet cleaning chemistry is then applied to the surface of the substrate. The application of the wet cleaning chemistry aids in substantially removing the remaining post-etch polymer residue left behind by the short flash process.

(Figure 2A)