

ABSTRACT OF THE DISCLOSURE

A SELECTIVE & DAMAGE FREE Cu CLEANING PROCESS FOR PRE-DEP, POST ETCH/CMP

A method for forming a copper containing microelectronic structure. There is first provided a substrate. There is then formed over the substrate a copper containing microelectronic structure comprising a copper containing layer and a non-copper containing layer, where the non-copper containing layer has formed thereupon a copper containing residue. Finally, there is then stripped from the non-copper containing layer the copper containing residue while employing a stripper composition comprising a non-aqueous coordinating solvent and a halogen radical producing specie. Additionally, the copper so dissolved may be recovered from a non-aqueously solvated copper halide compound dissolved within the non-aqueous solvent.

(FIGURE 1 IS SUGGESTED FOR PUBLICATION)