Abstract

PHOTORESIST AND POLYMER REMOVAL BY UV LASER AQUEOUS OXIDANT

A method of stripping photoresist and polymer from a wafer after a dry etch of a nitride or a polysilicon layer that immerses the wafer in a peroxydisulfate ($S_2O_8^{2-}$) /HCl wet bath and while the wafer is still immersed, irradiates the wafer with a UV laser. The method comprises: (a) forming an silicon nitride layer 24 and a photoresist pattern 28 over a semiconductor structure 10; (b) dry etching the silicon nitride layer 24 thus forming a polymer 30 over the photoresist pattern, and the silicon nitride layer; (c) Immersing the substrate, the photoresist pattern, the polymer 30 in a liquid bath 34 comprising (1) peroxydisulfate ($S_2O_8^{2-}$), (2) HCl, and (3) water; and irradiating the photoresist pattern 28 and polymer layer 30 with a UV laser thereby removing the photoresist 28 and polymer 30.

(FIGURE 1 IS SUGGESTED FOR PUBLICATION)