ABSTRACT

METHOD OF FORMING LOW PRESSURE SILICON OXYNITRIDE DIELECTRICS HAVING HIGH RELIABILITY

A method for improving oxide quality and reliability by using low pressure during oxidation and nitridation is described. The wafer is loaded into a chamber wherein a pressure of between about 80 and 300 torr is maintained during the forming of the dielectric layer. The silicon substrate of the wafer is oxidized, then nitrided. The substrate is annealed to complete formation of the dielectric layer.

(FIGURE 1 IS SUGGESTED FOR PUBLICATION)