Gradient Low K Material

ABSTRACT OF THE DISCLOSURE

A thin film dielectric layer comprises a top portion and a bottom portion and has density and permittivity characteristics that vary substantially uniformly from the top portion to the bottom portion. Control over the density and/or permittivity is accomplished through varying deposition parameters such as flow rate of constituent process gases or deposition chamber pressure, or through a post deposition treatment, such as plasma treatment or curing.

(FIG. 2)