

SILICON DIOXIDE DEPOSITION METHOD AND APPARATUS**Abstract**

In plasma enhanced chemical vapor deposition (PECVD) of silicon dioxide on a substrate, voids and discontinuities are reduced by first depositing silicon dioxide in a sputter etch chamber (22) in which a magnetic field is produced within the rf plasma for depositing the silicon dioxide. Simultaneous sputter etch and deposition occurs which inhibits net deposition at the corners of metal conductors over which the silicon dioxide is deposited. The substrate is then removed and transferred through a load lock (27) to a conventional PECVD deposition chamber (23).

FIGURE 5.