

**A METHOD FOR MANUFACTURING A LOW DIELECTRIC CONSTANT  
INTER-LEVEL INTEGRATED CIRCUIT STRUCTURE**

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**Abstract of the Disclosure**

An interconnect structure having a dielectric layer with low dielectric constant is formed within an integrated circuit. In one embodiment of the invention, portions of a silicon dioxide layer (18) lying adjacent to a  
10 conductive interconnect (21) are removed to expose portions of a silicon nitride etch stop layer (16). A dielectric layer (22) having a low dielectric constant is then formed overlying the conductive interconnect (21) and the exposed portions of the silicon nitride etch stop layer (16). A portion of the  
15 dielectric layer (22) is then removed to expose the top surface of the conductive interconnect (21) to leave portions of the dielectric layer (22) between adjacent conductive interconnects (21). The resulting interconnect structure has reduced cross-talk between conductive interconnects (21) while avoiding prior art disadvantages of reduced thermal dissipation and  
20 increased mechanical stress.

Fig. 6 accompanies this abstract.