A METHOD OF FORMING ALMOST L-SHAPED SPACER FOR IMPROVED ILD GAP FILL



G00002

ABSTRACT



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A patterned and etched layer of gate electrode material is formed over the active surface of a substrate, a layer of liner oxide is created, gate spacers are created.

Under the first embodiment of the invention, a layer of TEOS is deposited over the created structure over which a layer of nitride is deposited, The layer of nitride is etched, this etch is extended into an overetch creating openings through the layer of TEOS where this layer overlies the gate spacers. The gate spacers are then further etched.

Under the second embodiment of the invention, a layer of TEOS is deposited over the created structure. The layer of TEOS is etched, stopping on the silicon nitride of the gate spacers. The gate spacers are then further etched.
(Figure 8)