ABSTRACT

METHOD FOR FABRICATING A GATE STRUCTURE OF A FIELD EFFECT TRANSISTOR

[0054] A method for fabricating a gate structure of a field effect transistor is disclosed. The gate structure is fabricated by sequentially etching a material stack comprising a gate electrode layer formed on a gate dielectric layer. Prior to etching the gate dielectric layer, polymeric residues formed on the substrate when the gate electrode is etched are removed. The polymeric residue is removed by exposing the substrate to a plasma comprising one or more fluorocarbon containing gases and at least one inert gas. structure.

(FIG. 1)