ABSTRACT

SILICON ETCH WITH PASSIVATION USING PLASMA ENHANCED OXIDATION

A method and apparatus for etching a silicon layer through a patterned mask formed thereon are provided. The silicon layer is placed in an etch chamber. An etch gas comprising a fluorine containing gas and an oxygen and hydrogen containing gas is provided into the etch chamber. A plasma is generated from the etch gas and features are etched into the silicon layer using the plasma. The etch gas is then stopped. The plasma may contain OH radicals.

FIG. 1