ABSTRACT OF THE DISCLOSURE

USE OF HYPOFLUORITES, FLUOROPEROXIDES, AND/OR FLUOROTRIOXIDES AS OXIDIZING AGENT IN FLUOROCARBON ETCH PLASMAS

A mixture and a method comprising same for etching a dielectric material from a layered substrate are disclosed herein. Specifically, in one embodiment, there is provided a mixture for etching a dielectric material in a layered substrate comprising: a fluorocarbon gas, a fluorine-containing oxidizer gas selected from the group consisting of a hypofluorite, a fluoroperoxide, a fluorotrioxide, and combinations thereof; and optionally an inert diluent gas. The mixture of the present invention may be contacted with a layered substrate comprising a dielectric material under conditions sufficient to form active species that at least partially react with and remove at least a portion of the dielectric material.

Figure 1