Abstract of the Disclosure

Method For Etching Dual Damascene Structures In Organosilicate Glass

A method for forming a dual damascene etch structure in a wafer, the wafer including a layer of organosilicate glass dielectric, the method comprising the steps of:

first, etching through a major portion of the organosilicate glass dielectric utilizing a first, low selectivity etchant, the first etching step leaving a remainder portion of the organosilicate glass dielectric, wherein the low selectivity etchant is selected from the group of etchant mixtures consisting of $Ar/N_2/CF_4/$, $Ar/N_2/C_2F_6$, and $Ar/N_2/C_4F_8/O_2$; and

second, etching away the remainder portion of the organosilicate glass dielectric utilizing a second, highly selective etchant, wherein the high selectivity etchant is a mixture of $Ar/N_2/C_4F_8$.

Fig. 1