

DISCLOSURE OF ABSTRACT

The anti-reflective coating composition comprising at least perfluoroalkylsulfonic acid (A) represented by the general formula: $C_nF_{2n+1}SO_3H$ (n is an integer of 4 to 8), organic amine(B), water-soluble polymer(C), perfluoroalkyl sulfonamide (D) represented by the general formula: $C_nF_{2n+1}SO_2NH_2$ (n is an integer of 1 to 8) and water (E) and having a pH value of 1.3 to 3.3 is applied onto a photoresist film formed on a substrate, thus forming an anti-reflective coating. The photoresist and anti-reflective coating are then exposed to light and developed to give a resist pattern. The coating composition can form a uniform anti-reflective coating free of standing wave, multiple reflection, T-top and PED(Post Exposure Delay) in a small amount of drip onto any types of resists regardless of the surface shape of a substrate.