Abstract of the Disclosure

A silicon oxide fluoride film having Si-F bonds and Si-O bonds is used for insulator wiring of a semiconductor device, and a dielectric film is formed using $SiF_2X_2$ gas (X = H, Cl, Br, $OCH_3$, $OC_2H_5$, and $OC_3H_5$) as a reactant.

A semiconductor device having a small wiring delay and high reliability can be manufactured, because the silicon oxide fluoride film having Si-F bonds and Si-O bonds has a smaller dielectric constant than a silicon oxide fluoride film having Si-Si bonds and O-F bonds.