

ABSTRACT

According to a method of fabricating an SOI substrate, a stopper layer, a semiconductor layer, a buried insulating layer and a first bonding insulation layer are sequentially formed on a sacrificial wafer.

5 A second bonding insulation layer is formed on a reference wafer. The first and second bonding insulation layers include a Silicon Carbon Nitride (SiCN) material. Si-OH bonds are formed in the first bonding insulation layer and the second bonding insulation layer by an O₂ plasma treatment. The sacrificial wafer is bonded to the reference

10 wafer so that the first bonding insulation layer contacts the second bonding insulation layer.

FIG. 1