## Abstract of the Disclosure

"METHOD OF MANUFACTURING SEMICONDUCTOR DEVICES"

In a method of manufacturing a semiconductor device, a first plasma insulating film (33) having a thickness of 0.1 μm or more is formed on the semiconductor substrate (30) with lower-surface wirings (32) thereon. The semiconductor substrate is moved into a pressure-reduced CVD device, and then an $SiH_4$ gas and $H_2O_2$ are supplied into the pressure-reduced CVD device to react them to each other in a vacuum of 650 Pa or less within the temperature range of -10°C to +10°C to form a reflow $SiO_2$ film (34) having a thickness of 0.4 μm to 1.4 μm on the semiconductor substrate. The semiconductor substrate is put in a vacuum of 6.5 pascal for 30 seconds or more. Thereafter, the semiconductor substrate is put at a high temperature of 300°C to 450°C for 120 to 600 seconds. A second plasma insulating film (35) having a thickness of 0.3 μm or more and serving as a cap film is formed on the semiconductor substrate. The crack resistance of the reflow insulating film formed in the above steps is improved, and the flatness of the reflow insulating film is improved.

(Please note that Figure 2C should accompany the abstract when published)