

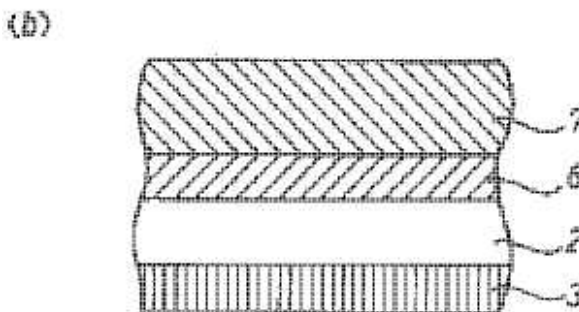
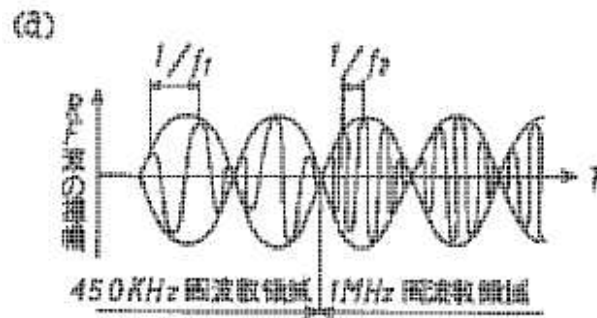
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FORMING METHOD FOR CVD FILM

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Classification: - **international:** **C23C16/50; H01L21/205; H01L21/31;** (IPC1-7): C23C16/50; H01L21/205; H01L21/31
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Abstract of JPH0521362 (A)

PURPOSE:To form a CVD film of desired quality with constant thickness even if an insulating film is deposited on a rear surface of a silicon wafer by switching a frequency of a high frequency signal among a plurality of stages to be controlled when the signal is applied to a plasma CVD device to form the CVD film.
CONSTITUTION:When an insulating film 3 is deposited on a rear surface of a silicon wafer 2, an impedance of a holder depends upon a capacity of the insulating film and a frequency of an RF wave. A CVD film formed on the wafer 2 is necessarily a film having high quality and high denseness on a part in contact with the wafer 2, but a part which is not in contact with the wafer is not important and may hence be of low quality. The frequency of the RF wave is set to 450kHz for a relatively short time, and a CVD film 6 is formed thinly. Then, the frequency is switched, set to 1MHz for a relatively long time, and a CVD film 7 is



formed thickly on the film 6. Thus, the film 6 becomes a high quality and dense, and the film 7 becomes a low quality and porous.