

CLAIMS

1. A substrate processing method, comprising:

(a) loading a substrate into a processing vessel having a pre-baked film containing a silazane bond;

(b) heating the substrate to a first temperature and supplying a process gas to the heated substrate, thereby modifying the film containing the silazane bond; and

(c) heating the substrate to which the process gas has been supplied, to a second temperature which is higher than the first temperature and less than or equal to a temperature at which the pre-bake has been performed.

2. The substrate processing method according to claim 1, further comprising:

(d) supplying a process liquid into the processing vessel; and

(e) generating the process gas by vaporizing the process liquid using a vaporizer in the processing vessel.

3. The substrate processing method according to claim 1, wherein an oxygen-containing gas is supplied to the substrate at a first flow rate in (b), and the oxygen-containing gas is supplied thereto at a second

flow rate larger than the first flow rate before (c).

4. The substrate processing method according to claim 1, further comprising:

(f) vacuum-exhausting the inside of the processing vessel after (c); and

(g) venting the inside of the processing vessel to an atmospheric pressure after (f).

5. The substrate processing method according to claim 1, wherein the process gas is a hydrogen peroxide gas.