

**WHAT IS CLAIMED IS:**

1. An electrostatic attraction method comprising:

a first step where a gas is introduced into a chamber in which the processing target object is to be processed before a processing target object is placed on a stage within the chamber, and plasma is generated by applying a high frequency power;

a second step where a DC voltage having a polarity opposite to a polarity of a DC voltage to be applied when attracting the processing target object, to an electrostatic chuck provided on the stage after the first step;

a third step where extinguishing of the plasma by stopping application of the high frequency power is performed after the second step; and

a fourth step where application of the DC voltage is stopped after the third step.

2. The electrostatic attraction method according to claim 1, further comprising, after the fourth step, a fifth step where the processing target object is carried into the chamber and a DC voltage having a polarity opposite to the polarity of the DC voltage applied in the second step, to the electrostatic chuck so that the processing target object is attracted to the electrostatic chuck.

3. The electrostatic attraction method according to claim 2, wherein the DC voltage applied in the second step is a DC voltage having a negative polarity.

4. The electrostatic attraction method according to claim 3, wherein the DC voltage applied in the fifth step is a DC voltage having a positive polarity.

5. The electrostatic attraction method according to any one of claims 1 to 4, wherein the high frequency power applied in the first step is a high frequency power for plasma generation.

6. The electrostatic attraction method according to any one of claims 1 to 5, wherein the pressure within the chamber is lowered simultaneously when or after the application of the high frequency power is stopped in the third step and before the fourth step.

7. The electrostatic attraction method according to any one of claims 1 to 6, wherein the first step is performed after a wafer-less dry cleaning.