

CLAIMS

1. An adhesion removal method comprising:

reacting a sulfur-containing adhesion with a cleaning
5 gas containing a hydrogen-containing compound gas, the
sulfur-containing adhesion adhering onto at least one of an
inner surface of a chamber and an inner surface of a pipe
connected to the chamber, thereby removing the
sulfur-containing adhesion,

10 wherein the hydrogen-containing compound gas is at
least one gas selected from a group consisting of hydrogen
gas (H_2), methane gas (CH_4), ethane gas (C_2H_6), propane gas
(C_3H_8), butane gas (C_4H_{10}), and ammonia gas (NH_3).

15 2. The adhesion removal method according to claim
1, wherein the cleaning gas is brought into contact with the
adhesion in a condition of a temperature of $20^{\circ}C$ or more and
 $800^{\circ}C$ or less and a pressure of 20 Pa or more and 101 kPa or
less.

20 ~~3. The adhesion removal method according to claim
1 or claim 2, wherein the hydrogen-containing compound gas
is at least one selected from the group consisting of hydrogen
gas, a hydrocarbon gas, and ammonia gas.~~

25 43. The adhesion removal method according to claim
1 or claim 2, wherein the hydrogen-containing compound gas
is hydrogen gas.

~~5~~4. A film-forming method comprising:

a passivation step of supplying a passivation gas containing a sulfur-containing compound gas to a chamber in which a substrate is stored and reacting the substrate with the passivation gas to form a passivation film on a surface of the substrate; and

an adhesion removal step of removing a sulfur-containing adhesion adhering onto at least one of an inner surface of the chamber and an inner surface of a pipe connected to the chamber after the passivation step, wherein

the adhesion removal step is performed by the adhesion removal method according to any one of claims 1 to ~~4~~3.

~~6~~5. The film-forming method according to claim ~~5~~4, wherein the sulfur-containing compound gas is hydrogen sulfide gas.