CLAIMS

1. A film-forming method comprising:

a passivation step of supplying a passivation gas containing hydrogen sulfide 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 comprises:

reacting a sulfur-containing adhesion with a cleaning gas containing an oxygen-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,

wherein the cleaning gas is brought into contact with the adhesion in a condition of a temperature of 20°C or more and 800°C or less and a pressure of 20 Pa or more and 101 kPa or less, and

wherein the oxygen-containing compound gas is at least one selected from the group consisting of oxygen gas, nitrogen monoxide, nitrous oxide, and carbon monoxide.

2. The film-forming method according to claim 1, wherein the oxygen-containing compound gas is oxygen gas.