CLAIMS

1. A deposit removal method comprising removing a selenium-containing deposit adhering to at least one of an inner surface of a chamber or an inner surface of piping connected to the chamber by reacting the deposit with a cleaning gas ~~containing~~ consisting of a fluorine-containing compound gas, or consisting of a fluorine-containing compound gas and an inert gas,

Wherein the cleaning gas is brought into contact with the deposit under conditions of a temperature of from 500℃ to 800℃, and

wherein the fluorine-containing compound gas is at least one selected from a group consisting of fluorine gas, nitrogen trifluoride gas, and fluorinated hydrocarbon gas, the fluorinated hydrocarbon gas being a gas of at least one of compounds represented by the following formula (1), (2), (3), or (4):

$CH_{4-m}F_m$ … (1)

$C_2H_{6-n}F_n$ … (2)

$C_3H_{8-q}F_q$ … (3)

$C_4H_{10-r}F_r$ … (4)

wherein m in formula (1) above is an integer of from 1 to 4, n in formula (2) above is an integer of from 1 to 6, q in formula (3) above is an integer of from 1 to 8, and r in formula (4) above is an integer of from 1 to 10.

2. The deposit removal method according to claim 1, wherein the cleaning gas is brought into contact with the deposit under conditions of a temperature of from ~~20℃~~ 500℃ to 800℃ and a pressure of from 20 Pa to 101 kPa.

~~3. The deposit removal method according to claim 1 or 2, wherein the fluorine-containing compound gas is at least one selected from a group consisting of fluorine gas, nitrogen trifluoride gas, and fluorinated hydrocarbon gas, the fluorinated hydrocarbon gas being a gas of at least one of compounds represented by the following formula (1), (2), (3), or (4):~~

~~$CH_{4-m}F_m$ … (1)~~

~~$C_2H_{6-n}F_n$ … (2)~~

~~$C_3H_{8-q}F_q$ … (3)~~

~~$C_4H_{10-r}F_r$ … (4)~~

~~wherein m in formula (1) above is an integer of from 1 to 4, n in formula (2) above is an integer of from 1 to 6, q in formula (3) above is an integer of from 1 to 8, and r in formula (4) above is an integer of from 1 to 10.~~

~~4~~3. The deposit removal method according to claim 1 or 2, wherein the fluorine-containing compound gas is fluorine gas.

~~5~~4. A film deposition method comprising:

a passivation step of supplying a passivation gas containing a selenium-containing compound gas to a chamber housing a substrate and reacting the substrate with the passivation gas to deposit a passivation film on a surface of the substrate; and

a deposit removal step of, after performing the passivation step, removing a selenium-containing deposit adhering to at least one of an inner surface of the chamber or an inner surface of piping connected to the chamber,

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

~~6~~5. The film deposition method according to claim ~~5~~4, wherein the selenium-containing compound gas is hydrogen selenide gas.