WHAT IS CLAIMED IS:

1. A method of processing a substrate, comprising:

(a) setting a supply amount of a modifying agent based on a relationship between the supply amount of the modifying agent and a saturated adsorption property of a precursor on the substrate; and

(b) supplying the modifying agent to the substrate based on the set supply amount.

2. The method of Claim 1, wherein the supply amount set in (a) is an amount that enables the precursor to exhibit the saturated adsorption property on the substrate.

3. The method of Claim 2, wherein in (a), the supply amount is set by at least one selected from the group of a supply flow rate of the modifying agent, a supply time of the modifying agent, and a processing pressure during the supply of the modifying agent.

4. The method of any one of Claims 1 to 3, wherein in (a), the supply amount is set by a supply flow rate of the modifying agent and a processing pressure during the supply of the modifying agent, or

wherein in (a), the supply amount is set by the supply flow rate of the modifying agent and a supply time of the modifying agent.

5. The method of any one of Claims 1 to 4, further comprising (c) supplying the precursor to the substrate.

6. The method of Claim 5, wherein (c) is performed under a condition in which adsorption of the precursor on the substrate is self-limited, or

wherein (c) is performed under a condition in which adsorption of the precursor on the

substrate is not self-limited.

7. The method of Claim 6, wherein in (c), an inert gas is supplied together with the precursor, and a thickness of a layer formed on the substrate by performing (c) is regulated by regulating a supply amount of the inert gas.

8. The method of Claim 7, wherein in (c), the thickness of the layer formed on the substrate by performing (c) is increased by decreasing the supply amount of the inert gas, or

wherein in (c), the thickness of the layer formed on the substrate by performing (c) is decreased by increasing the supply amount of the inert gas.

9. The method of Claim 6, further comprising (d) supplying a reactant to the substrate,

wherein in (d), a thickness of a layer formed on the substrate by performing (d) is increased by increasing a supply amount of the reactant, or

wherein in (d), the thickness of the layer formed on the substrate by performing (d) is decreased by decreasing the supply amount of the reactant.

10. The method of any one of Claims 1 to 9, wherein the precursor contains a main element contained in a film formed on the substrate and a halogen element.

11. The method of any one of Claims 1 to 9, wherein each molecule of the precursor contains two or more atoms of a Group 14 element.

12. The method of any one of Claims 1 to 9, wherein both of the precursor and the modifying agent contain a halogen element.

13. A method of manufacturing a semiconductor device, comprising:

(a) setting a supply amount of a modifying agent based on a relationship between the supply amount of the modifying agent and a saturated adsorption property of a precursor on the substrate; and

(b) supplying the modifying agent to the substrate based on the set supply amount.

14. A program that causes, by a computer, a substrate processing apparatus to perform a process comprising:

(a) setting a supply amount of a modifying agent based on a relationship between the supply amount of the modifying agent and a saturated adsorption property of a precursor on a substrate; and

(b) supplying the modifying agent to the substrate based on the set supply amount.

15. A substrate processing apparatus comprising:

a modifying agent supply system configured to supply a modifying agent to a substrate; and

a controller configured to be capable of controlling the modifying agent supply system so as to perform a process including: (a) setting a supply amount of the modifying agent based on a relationship between the supply amount of the modifying agent and a saturated adsorption property of a precursor on the substrate; and (b) supplying the modifying agent to the substrate based on the set supply amount.