WHAT IS CLAIMED IS:

1. A method of processing a substrate, comprising:

a) supplying an adsorption inhibition gas to the substrate;

b) supplying a precursor gas to the substrate;

c) supplying a reaction gas to the substrate; and

d) forming a film of an element contained in the precursor gas on the substrate by performing a), b), and c) a predetermined number of times in a state where an amount of exposure of the precursor gas supplied in b) to the substrate is larger than an amount of exposure of the adsorption inhibition gas supplied in a) to the substrate.

2. The method of Claim 1, wherein in d), an amount of adsorption of the precursor gas supplied in b) on the substrate is larger than an amount of adsorption of the adsorption inhibition gas supplied in a) on the substrate.

3. The method of Claim 1, wherein in d), a supply time of the precursor gas supplied in b) is longer than a supply time of the adsorption inhibition gas supplied in a).

4. The method of Claim 1, wherein the amount of exposure of the adsorption inhibition gas is set to be an amount at which an amount of improvement in a coverage of the film formed on the substrate in d) is saturated.

5. The method of Claim 1, wherein the amount of exposure of the adsorption inhibition gas is set to be an amount at which molecules of the adsorption inhibition gas are saturated and adsorbed on the substrate.

6. The method of Claim 1, wherein the substrate includes a recess, and

wherein the amount of exposure of the adsorption inhibition gas is set to be an amount at which molecules of the adsorption inhibition gas are saturated and adsorbed on an opening side of the recess.

7. The method of Claim 1, wherein the amount of exposure of the precursor gas is set to be an amount at which adsorption of molecules of the precursor gas on the substrate is not saturated.

8. The method of Claim 1, wherein an amount of exposure of the reaction gas is set to be an amount at which adsorption of molecules of the reaction gas on the substrate is saturated.

9. The method of Claim 1, wherein the substrate includes a recess, and

wherein the amount of exposure of the adsorption inhibition gas is set to be an amount at which a difference in step coverage of the film which is formed in the recess in a depth direction of the recess is within 20%.

10. The method of Claim 1, wherein a) includes causing at least a portion of a halogen element-containing gas to be adsorbed on the substrate so as to suppress a portion of a ligand of the precursor gas from being adsorbed on the substrate.

11. The method of Claim 1, wherein a) includes causing at least a portion of the adsorption inhibition gas to be adsorbed on the substrate so as to suppress a decomposition product of the precursor gas from being adsorbed on the substrate.

12. The method of Claim 1, wherein b) includes supplying the precursor gas stored in a storage.

13. The method of Claim 1, wherein b) includes:

b1) supplying the precursor gas stored in a storage;

b2) after b1), stopping the supply of the precursor gas; and

b3) after b2), supplying the precursor gas which is not stored in the storage.

14. The method of Claim 1, wherein a) is performed before b).

15. The method of Claim 1, wherein a) is performed after c).

16. The method of Claim 15, wherein after c), a) is performed while purging a space where the substrate exists.

17. The method of Claim 16, wherein after performing a) after c), the space is exhausted.

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

a) supplying an adsorption inhibition gas to a substrate;

b) supplying a precursor gas to the substrate;

c) supplying a reaction gas to the substrate; and

d) forming a film of an element contained in the precursor gas on the substrate by performing a), b), and c) a predetermined number of times in a state where an amount of exposure of the precursor gas supplied in b) to the substrate is larger than an amount of exposure of the adsorption inhibition gas supplied in a) to the substrate..

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

a) supplying an adsorption inhibition gas to a substrate;

b) supplying a precursor gas to the substrate;

c) supplying a reaction gas to the substrate; and

d) forming a film of an element contained in the precursor gas on the substrate by causing an amount of exposure of the precursor gas supplied in b) to the substrate to be larger than an amount of exposure of the adsorption inhibition gas supplied in a) to the substrate and performing a), b), and c) a predetermined number of times.

20. A substrate processing apparatus comprising:

a process container configured to accommodate a substrate;

a first gas supply system configured to supply a precursor gas to the process container;

a second gas supply system configured to supply an adsorption inhibition gas to the process container;

a third gas supply system configured to supply a reaction gas to the process container; and

a controller configured to be capable of controlling the first gas supply system, the second gas supply system, and the third gas supply system to perform a method of processing the substrate comprising:

a) supplying the adsorption inhibition gas to the substrate;

b) supplying the precursor gas to the substrate;

c) supplying the reaction gas to the substrate; and

d) forming a film of an element contained in the precursor gas on the substrate by performing a), b), and c) a predetermined number of times in a state where an amount of exposure of the precursor gas supplied in b) to the substrate is larger than an amount of exposure of the adsorption inhibition gas supplied in a) to the substrate.