What is claimed is:

1. A substrate processing apparatus, the apparatus comprising:

a first cleaner configured to supply, from a nozzle, sulfuric acid and hydrogen peroxide water to a substrate polished by a polisher and then clean the substrate using a pure water while holding and rotating the substrate by a substrate holding and rotating mechanism;

a second cleaner configured to clean, using a basic chemical liquid and hydrogen peroxide water, the substrate cleaned by the first cleaner while holding and rotating the substrate by a substrate holding and rotating mechanism; and

a drier configured to dry the substrate cleaned by the second cleaner,

wherein the polisher is configured to polish the substrate using the polishing liquid including a cerium oxide.

2. The substrate processing apparatus according to claim 1, wherein the substrate processing apparatus does not have a mechanism configured to dry the substrate after being polished by the polisher and before being cleaned by the first cleaner.

3. The substrate processing apparatus according to claim 1, further comprising a transporter configured to transport the substrate polished by the polisher to the first cleaner without drying the substrate.

4. The substrate processing apparatus according to claim 3, further comprising a first liquid supply mechanism configured to shower liquid on the substrate that is being transported by

the transporter.

5. The substrate processing apparatus according to claim 1, further comprising a substrate station on which the substrate after being polished by the polisher and before being cleaned by the first cleaner is mounted; and

a second liquid supply mechanism configured to shower liquid on the substrate mounted on the substrate station.

6. The substrate processing apparatus according to claim 1, wherein

the first cleaner is housed in a first housing provided with a first shutter that is openable and closable,

the second cleaner is housed in a second housing provided with a second shutter that is openable and closable, and

the drier is housed in a third housing provided with a third shutter that is openable and closable.

7. The substrate processing apparatus according to claim 1, further comprising a third cleaner configured to clean the substrate by bringing a

cleaning member into contact with the substrate while supplying basic chemical liquid and hydrogen peroxide water to the substrate.

8. The substrate processing apparatus according to claim 1, wherein the second cleaner is configured to perform two-fluid jet cleaning after cleaning the substrate using the basic chemical liquid and the hydrogen peroxide water.

9. A substrate processing method, the method comprising:

providing a substrate processing apparatus, the substrate processing apparatus comprising a polisher, first cleaner, a second cleaner and a dryer;

polishing a substrate using a polishing liquid by the polisher in the substrate processing apparatus;

after that, cleaning the substrate using sulfuric acid and hydrogen peroxide water by the first cleaner in a housing, after that, further cleaning the substrate using a pure water in the housing in order to prevent the sulfuric acid from being leaked from the housing;

after that, cleaning the substrate using a basic chemical liquid and hydrogen peroxide water by the second cleaner; and after that, drying the substrate by the drier.

10. The substrate processing method according to claim 10, further comprising transporting the polished substrate from the

polisher to the first cleaner without drying the polished substrate, after polishing the substrate.

11. A substrate processing method, the method comprising:

in a first cleaning process, cleaning, using sulfuric acid and hydrogen peroxide water, a substrate to which cerium ions are attached in a housing, after that, further cleaning the substrate using a pure water in the housing in order to prevent the sulfuric acid from being leaked from the housing;

after that, in a second cleaning process, cleaning the substrate using a basic chemical liquid and hydrogen peroxide water; and

after that, in a drying process, drying the substrate.

12. The substrate processing method according to claim 11, wherein in the first cleaning process, the substrate to which the cerium ions having a cerium concentration of 1.0×1010 atms/cm^2 or more are attached is cleaned, and

a cerium concentration of the substrate subjected to the drying process is a detection limit or less in measurement by an inductively coupled plasma mass spectrometry (ICP-MS) method.

13. The substrate processing method according to claim 12, wherein in the first cleaning process and/or the second cleaning process, the substrate is heated.

14. The substrate processing method according to claim 12, further comprising at least one of:

supplying the basic chemical liquid and the hydrogen peroxide water to the substrate to which the cerium ions are attached;

bringing a rotating sponge member into contact with the substrate to which the cerium ions are attached; and

supplying a jet stream of a gas and a liquid to the substrate to which the cerium ions are attached, before the first cleaning process.

15. The substrate processing method according to claim 12, wherein the first cleaning process, the second cleaning process, and the drying process are performed in a cleaning tank,

the method further comprising:

cleaning an inner portion of the cleaning tank between the first cleaning process and the second cleaning process; and

cleaning the inner portion of the cleaning tank between the second cleaning process and the drying process.

16. The substrate processing method according to claim 12, further comprising polishing the substrate using slurry including the cerium ions before the first cleaning process,

wherein the substrate after being polished is not dried between the polishing process and the first cleaning process.