What is claimed is:

1. A substrate cleaning device, comprising:

a cleaning unit, including a rotating carrier and a cleaning nozzle, the rotating carrier being used for carrying a substrate and driving the substrate to rotate, and the cleaning nozzle being used for spraying a cleaning liquid onto the substrate to clean the substrate;

a liquid sampling unit, configured to obtain the cleaning liquid on the substrate in real time during the substrate cleaning process;

a detection unit, used for receiving the cleaning liquid obtained by the liquid sampling unit and detecting the cleanliness of the cleaning liquid;

a control unit, communicatively connected to the detection unit, used for controlling the cleaning parameter according to the cleanliness of the cleaning liquid.

2. The substrate cleaning device according to claim 1, wherein the cleaning parameter includes any one or more of cleaning time, cleaning pressure, cleaning flow rate, and the rotation speed of the rotating carrier.

3. The substrate cleaning device according to claim 2, wherein the substrate cleaning device further comprises a liquid supply pipeline, a regulating valve, and a pump, one end of the liquid supply pipeline is connected to the cleaning nozzle, and the other end of the liquid supply pipeline is connected to the pump, and the regulating valve is provided on the liquid supply pipeline; the control unit is communicatively connected to the pump and/or the regulating valve, and the control unit controls the cleaning parameter by controlling the output power of the pump and/or the opening degree of the regulating valve.

4. The substrate cleaning device according to claim 3, wherein the substrate cleaning device further comprises:

a pressure sensor, disposed on the liquid supply pipeline, communicatively connected to the control unit, used for detecting the cleaning pressure of the cleaning

liquid within the liquid supply pipeline, and/or,

a flow rate sensor, disposed on the liquid supply pipeline, communicatively connected to the control unit, used for detecting the cleaning flow rate of the cleaning liquid within the liquid supply pipeline.

5. The substrate cleaning device according to claim 2, wherein the substrate cleaning device further comprises a cleaning brush, and the cleaning brush is used for brushing the surface of the substrate.

6. The substrate cleaning device according to claim 1, wherein the detection unit is a particle counter.

7. The substrate cleaning device according to claim 1, wherein the liquid sampling unit is a liquid sampler, and the liquid sampler is disposed near the upper surface of the substrate.

8. The substrate cleaning device according to claim 1, wherein the liquid sampling unit includes a liquid sampling chamber disposed around the outer periphery of the rotating carrier, a liquid sampling hole is provided at the bottom of the liquid sampling chamber, and the liquid sampling chamber is configured to allow the cleaning liquid flung off from the substrate to enter the liquid sampling chamber during the substrate cleaning process; the detection unit is connected to the liquid sampling hole.

9. The substrate cleaning device according to claim 8, wherein the substrate cleaning device further comprises a cleaner disposed within the liquid sampling chamber, for cleaning the cleaning liquid remaining in the liquid sampling chamber.

10. The substrate cleaning device according to claim 8, wherein the bottom of the liquid sampling chamber has a drainage slope, so that the bottom of the liquid sampling chamber has a lowest point, and the liquid sampling hole is disposed at the lowest point.

11. The substrate cleaning device according to claim 10, wherein the bottom of the liquid sampling chamber includes a groove, the opening diameter of the groove decreases from top to bottom to form the drainage slope, and the bottom of the groove is the lowest point.

12. The substrate cleaning device according to claim 8, wherein the cleaning unit further includes a protective cover, the protective cover is disposed around the outer periphery of the rotating carrier, the liquid sampling chamber is disposed around the outer periphery of the protective cover, the protective cover is provided with an opening in communication with the liquid sampling chamber, and the opening is configured to allow the cleaning liquid flung off from the substrate to enter the liquid sampling chamber through the opening during the cleaning of the substrate.

13. A substrate cleaning method, comprising:

controlling a substrate to rotate and spraying a cleaning liquid onto the substrate for cleaning;

obtaining the cleaning liquid on the current substrate in real time;

detecting the cleanliness of the cleaning liquid;

controlling the cleaning parameter for the current substrate according to the cleanliness of the cleaning liquid.