CLAIMS

1.A substrate processing method, comprising:

S1: transferring a substrate plated with a first metal layer from a first plating chamber to a second plating chamber;

S2: after transferring the substrate to the second plating chamber, forming a water film layer on the front side of the substrate in the second plating chamber;

S3: electroplating a second metal layer on the first metal layer;

wherein before taking the substrate electroplated with the first metal layer from the first plating chamber, cleaning the front side of the substrate in the first plating chamber.

2. The substrate processing method according to claim 1, wherein the step S2 comprises:

S21: using a substrate chuck to clamp the substrate and bring the substrate to rotate, and using a spray device in the second plating chamber to spray water film forming liquid on the front side of the substrate to form the water film layer, and setting the rotation speed of the substrate chuck, the spray time and the spray flow rate of the spray device;

S22: making the substrate rotate according to the set rotation speed, and at the same time, the spray device in the second plating chamber spraying the water film forming liquid on the front side of the substrate according to the set spray time and spray flow rate, so as to form the water film layer.

3. The substrate processing method according to claim 2, wherein the shape of the water film forming liquid ejected by the spray device is fan-shaped, and the water film forming liquid is deionized water.

4. The substrate processing method according to any one of claims 1 to 3, wherein the step S1 comprises:

S11: placing the substrate in the first plating chamber to electroplate the first metal layer on the front side of the substrate, wherein the front side of the substrate faces down;

S12: taking the substrate from the first plating chamber, and keeping the front side of the substrate facing down until the substrate is transferred to the second plating chamber.

5. The substrate processing method according to claim 4, wherein the step S11 comprises:

S101: after the substrate is transferred to the first plating chamber, selecting whether it is necessary to spray the water film forming liquid from a spray device in the first plating chamber to the front side of the substrate, if necessary, spraying the water film forming liquid to the front side of the substrate via the spray device in the first plating chamber, and then entering step S102, if not necessary, directly entering the step S102;

S102: electroplating the first metal layer on the front side of the substrate.

6. The substrate processing method according to claim 1, wherein before the step S1, the method further comprises:

S01: taking the substrate from a temporary storage area with the front side of the substrate facing up;

S02: transferring the substrate to the first plating chamber, and changing the front side of the substrate from facing up to facing down during the transfer process.

7. The substrate processing method according to claim 1, further comprising the following steps:

S4: taking the substrate from the second plating chamber, and keeping the front side of the substrate facing down until the substrate is transferred to a third plating chamber;

S5: electroplating a third metal layer on the second metal layer after the substrate is transferred to the third plating chamber.

8. The substrate processing method according to claim 7, wherein the step S5 comprises:

S501: after transferring the substrate to the third plating chamber, selecting whether it is necessary to spray the water film forming liquid on the front side of the substrate from a spray device in the third plating chamber, if necessary, spraying the water film forming liquid to the front side of the substrate via the spray device in the third plating chamber, and then entering step S502, if not necessary, directly entering the step S502;

S502: electroplating a third metal layer on the second metal layer.

9. The substrate processing method according to claim 7 or 8, further comprising the following steps:

S6: taking the substrate from the third plating chamber with the front side of the substrate facing down;

S7: transferring the substrate to a cleaning chamber, and changing the front side of the substrate from facing down to facing up during the transfer process;

S8: cleaning and drying the substrate in the cleaning chamber.