

What is claimed is:

1. A degassing chamber, comprising a heating device, a cooling device, and a movable supporting device, which are disposed inside the degassing chamber; wherein,

5 the heating device comprises a heating plate, the heating plate is of a disk-like structure and a surface of the heating plate facing a wafer is flat; a heating element is disposed in the heating plate, and the heating element is arranged in such a way that a density of the heating element gradually increases along a direction from a center of the heating plate to an edge of the heating plate;

10 the cooling device and the heating device are separated from each other and disposed opposite to each other;

the movable supporting device is configured to carry the wafer and is capable of driving the wafer to move between the heating device and the cooling device, so that the wafer is capable of being heated and cooled, respectively; and

15 when the wafer is heated, heat from the heating plate is capable of being radiated to the wafer directly.

2. The degassing chamber of claim 1, further comprising a shield that is movable, wherein when the movable supporting device drives the wafer to move to a heating position where the wafer is capable of being heated by the heating device, the shield is capable of moving to a first position to expose the wafer to the heating device; and when the movable supporting device drives the wafer to move to a cooling position where the wafer is capable of being cooled by the cooling device, the shield is capable of moving to a second position between the heating device and the wafer to cover the wafer.

25 3. The degassing chamber of claim 2, further comprising a protective cover which is communicated with an interior of the degassing chamber, wherein the shield is placed inside the protective cover when being located at the first position.

30 4. The degassing chamber of claim 2 or claim 3, further comprising a rotating drive mechanism configured to drive the shield to rotate between the first position and the second position.

5. The degassing chamber of claim 4, wherein the rotating drive mechanism comprises a rotating connecting rod and a rotating motor,

the rotating connecting rod is vertically disposed on a side of the shield close to the protective cover and is connected to the shield and the rotating motor, respectively; and

the rotating motor is configured to drive the rotating connecting rod to rotate around an axis of the rotating connecting rod.

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6. The degassing chamber of claim 2 or claim 3, wherein the shield is foldable or extendable, and when the moveable supporting device drives the wafer to move to the heating position, the shield is capable of being folded to move to the first position; and when the movable supporting device drives the wafer to move to the cooling position, the shield is capable of being extended to move to the second position.

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7. The degassing chamber of claim 1, wherein the heating element comprises a heating wire wound into a flat spiral structure around an axis of the heating plate, and a gap between two adjacent loops of the heating wire gradually decreases along the direction from the center of the heating plate to the edge of the heating plate.

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8. The degassing chamber of claim 1, wherein there is a preset distance between a surface of the wafer and a surface of the heating plate, which are opposite to each other, when the wafer is located at the heating position.

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9. The degassing chamber of claim 8, wherein the preset distance is in a range of 0.05mm to 0.15mm.

10. The degassing chamber of claim 1, wherein the cooling device comprises a cooling plate, and a wafer cooling channel is disposed in the cooling plate for transporting a cooling medium.

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11. The degassing chamber of claim 1, wherein the heating device and the cooling device are disposed along a vertical direction, and the heating device is located above the cooling device.

12. The degassing chamber of claim 11, wherein the movable supporting device comprises at least three supporting pins and a lifting drive mechanism,

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the at least three supporting pins are all vertically disposed and penetrate through the cooling device, and are configured to jointly support the wafer at a position between the heating device and the cooling device; and

the lifting drive mechanism is configured to drive the at least three supporting pins to rise or descend.

13. The degassing chamber of claim 1, wherein,
5 a chamber cooling channel for transporting a cooling medium is disposed at least in a chamber wall of the degassing chamber close to the heating device.

14. A degassing method, which is performed in the degassing chamber of any of claims 1 to 13, comprising:
10 carrying the wafer by the movable supporting device, moving the wafer by the movable supporting device to a heating position where the wafer is capable of being heated by the heating device, and heating the wafer; and
moving the wafer by the movable supporting device to a cooling position where the wafer is capable of being cooled by the cooling device, and cooling the wafer.

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15. The degassing method of claim 14, wherein,
the degassing chamber comprises a shield that is movable; and
the degassing method further comprises:
when the wafer is driven by the movable supporting device to move to the heating position,
20 moving the shield to a first position to expose the wafer to the heating device; and
when the wafer is driven by the movable supporting device to move to the cooling position, moving the shield to a second position between the heating device and the wafer to cover the wafer.