

WHAT IS CLAIMED IS:

1. A substrate treating apparatus comprising:
 - a housing having a treatment space;
 - a support unit including a chuck configured to support a substrate in the treatment space;
 - a gas supply unit including a first gas supply part configured to supply an inert gas to a central area of the substrate supported by the chuck, and a second gas supply part configured to supply a process gas excited into a plasma state to an edge area of the substrate supported by the chuck, wherein all of the process gas is introduced closer to the edge area than the inert gas; and
 - a dielectric plate configured to face an upper surface of the substrate supported by the chuck,
 - wherein a height of a lower surface of a central area of the dielectric plate and a height of a lower surface of an edge area of the dielectric plate are different, and
 - wherein a height of an upper surface of a central area of the chuck and a height of an upper surface of an edge area of the chuck are different.
2. The substrate treating apparatus of claim 1, wherein the height of the lower surface of the central area of the dielectric plate is higher than the height of the lower surface of the edge area of the dielectric plate.
3. The substrate treating apparatus of claim 1, wherein the height of the upper surface of the central area of the chuck is lower than the height of the upper surface of the edge area of the chuck ~~are different~~.
4. The substrate treating apparatus of claim 1, wherein the height of the

lower surface of the central area of the dielectric plate is higher than the height of the lower surface of the edge area of the dielectric plate, and

wherein the height of the upper surface of the central area of the chuck is lower than the height of the upper surface of the edge area of the chuck.

5. The substrate treating apparatus of any one of claims 1 to 4, wherein the upper surface of the chuck is concave such that the height of the upper surface of the central area of the chuck is lower than the height of the upper surface of the edge area of the chuck.

6. The substrate treating apparatus of any one of claims 1 to 4, wherein the lower surface of the dielectric plate is concave such that the height of the lower surface of the central area of the dielectric plate is higher than the height of the lower surface of the edge area of the dielectric plate.

7. The substrate treating apparatus of any one of claims 1 to 4, wherein the lower surface of the dielectric plate is stepped such that the height of the lower surface of the central area of the dielectric plate is higher than the height of the lower surface of the edge area of the dielectric plate.

8. The substrate treating apparatus of any one of claims 1 to 4, wherein the dielectric plate includes:

a recess that is recessed in a direction that faces the lower surface of the dielectric plate from the upper surface of the dielectric plate; and

at least one ejection hole that extends from the recess to the lower surface of the dielectric plate, and through which the inert gas supplied by the first gas supply

part flows.

9. The substrate treating apparatus of claim 8, further comprising:
a base provided between the dielectric plate and a ceiling of the housing,
wherein the recess and the base are combined with each other to form a
buffer space, and
wherein the buffer space is communicated with the ejection hole.

10. The substrate treating apparatus of claim 9, wherein the first gas
supply part supplies the process-inert gas into the buffer space.

11. The substrate treating apparatus of claim 8, wherein the ejection hole
has a diameter of 1.5 mm to 3.0 mm.

12. The substrate treating apparatus of any one of claims 1 to 4, wherein
the support unit includes:
an absorption line configured to absorb the lower surface of the substrate
supported by the chuck; and
a pressure reduction member connected to the absorption line.

13. The substrate treating apparatus of claim 12, further comprising:
an upper electrode configured to surround the dielectric plate when viewed
from a top,
wherein the support unit includes:
a lower electrode configured to surround the chuck when viewed from the
top, and configured to face the upper electrode.

14. A substrate treating apparatus comprising:

a housing having a treatment space;

a support unit including a chuck configured to support a substrate in the treatment space;

a gas supply unit including a first gas supply part configured to supply an inert gas to a central area of the substrate supported by the chuck, and a second gas supply part configured to supply a process gas excited into a plasma state to an edge area of the substrate supported by the chuck, wherein all of the process gas is introduced closer to the edge area than the inert gas; and

a dielectric plate configured to face an upper surface of the substrate supported by the chuck,

wherein a lower surface of the dielectric plate is concave such that a height of a lower surface of a central area of the dielectric plate is higher than a height of a lower surface of an edge area of the dielectric plate.

15. The substrate treating apparatus of claim 14, wherein a height of an upper surface of a central area of the chuck is lower than a height of an upper surface of an edge area of the chuck.

16. The substrate treating apparatus of claim 15, wherein an upper surface of the chuck is concave such that the height of the upper surface of the central area of the chuck is lower than the height of the upper surface of the edge area of the chuck.

17. The substrate treating apparatus of any one of claims 14 to 16, wherein the support unit includes:

an absorption line configured to absorb a lower surface of the substrate supported by the chuck; and

a pressure reduction member connected to the absorption line.

18. The substrate treating apparatus of claim 17, further comprising:

an upper electrode configured to surround the dielectric plate when viewed from a top,

wherein a lower electrode configured to surround the chuck when viewed from the top, and configured to face the upper electrode.

19. The substrate treating apparatus of claim 18, wherein the chuck is connected to an RF power source, and the upper electrode and the lower electrode are grounded.

20. The substrate treating apparatus of claim 18, wherein the support unit further includes:

an insulation ring provided between the lower electrode and the chuck, and

wherein the insulation ring has a stepped shape, a height of an upper surface of an inner area of which is higher than a height of an upper surface of an outer area thereof.

21. The substrate treating apparatus of claim 5, wherein the process gas supplied from the second gas supply part flows from top to bottom and the inert gas supplied from the first gas supply part flows along the edge area of the substrate in a state where the substrate is downwardly convexly supported along the upper surface of the concave surface of the chuck.