

CLAIMS

1. A substrate processing apparatus comprising:
a cylindrical chamber having an opening formed in a side wall;
a susceptor disposed within the chamber for placing a substrate to be processed thereon, the susceptor having an edge ring positioned around an upper surface thereof;
an annular valve body for opening and closing the opening;
a first conductive member disposed in an annular shape on an upper part of the valve body;
an upper member having conductivity disposed in an annular shape, along an inner wall of an upper part of the chamber;
and
two or more elevating mechanisms for raising and lowering the valve body;

wherein the opening has a dimension that allows at least the edge ring to pass through, and
when the valve body is raised, the first conductive member is brought into contact with the upper member in a vertical direction.

2. The substrate processing apparatus of claim 1, wherein the two or more elevating mechanisms include three or more elevating mechanisms.

3. The substrate processing apparatus of claim 1 or 2, wherein the elevating mechanisms are arranged at equal intervals.

4. The substrate processing apparatus any one of claims 1 to 3, wherein the substrate to be processed is transferred through the opening.

5. The substrate processing apparatus of any one of claims 1 to 4, further comprising a cover ring positioned around the edge ring,

wherein the opening has a size capable of transferring the cover ring.

6. The substrate processing apparatus any one of claims 1 to 5, wherein the opening is located on a transfer chamber side.