

WHAT IS CLAIMED IS:

1. A plasma processing apparatus, including: a chamber and a target above the chamber, the target is located above the chamber so that the surface of the target contacts the processing area inside the chamber, characterized in that,

~~the~~ the chamber includes an insulating sub-chamber and a first conductive sub-chamber which are superposed, the first conductive sub-chamber is provided under the insulating sub-chamber, the insulating sub-chamber is made of insulating material, the first conductive sub-chamber is made of metal material;

Aa Faraday shield component is provided inside the insulating sub-chamber, the Faraday shield component is made of metal material, or insulating material electroplated with conductive coatings, the Faraday shield component includes at least one slit; and

~~the~~ the insulating sub-chamber is externally surrounded by an induction coil, the lower edge of the insulating sub-chamber is provided with a flange facing toward the inside of the insulating sub-chamber, and the flange is used for supporting the Faraday shield component, and the apparatus further including: a first blocking component, which is provided at the joint of the flange and the Faraday shield component, and extends toward the direction of the first conductive sub-chamber in a suspended state.

2. The plasma processing apparatus according to claim 1, characterized in that, the insulating sub-chamber is a hollow cylinder.

3. The plasma processing apparatus according to claim 1, characterized in that, the Faraday shield component is a hollow cylinder.

~~4. The plasma processing apparatus according to claim 1, characterized in that, the lower edge of the insulating sub-chamber is provided with a flange facing toward the inside of the insulating sub-chamber, and the flange is used for supporting the Faraday shield component.~~

~~5. The plasma processing apparatus according to claim 4, characterized in that, the apparatus further including: a first blocking component, which is provided at the joint of the flange and the Faraday shield component, and extends toward the direction of the first~~

~~conductive sub-chamber in a suspended state.~~

64. The plasma processing apparatus according to claim 51, characterized in that, the apparatus further including: an isolation component, which is provided between the target and the insulating sub-chamber.

75. The plasma processing apparatus according to claim 64, characterized in that, the apparatus further including: a second blocking component, which is provided at the joint of the insulating sub-chamber and the isolation component and extends toward the direction of the insulating sub-chamber in a suspended state.

86. The plasma processing apparatus according to claim 64, characterized in that, the apparatus further including: a second conductive sub-chamber, which is provided between the isolation component and the insulating sub-chamber.

97. The plasma processing apparatus according to claim 86, characterized in that, the apparatus further including: a third blocking component, which is provided at the joint of the second conductive sub-chamber and the isolation component, and extends to the joint of the insulating sub-chamber and the second conductive sub-chamber in a suspended state.

108. The plasma processing apparatus according to any one of claims 1 to 97, characterized in that, the apparatus further including: a coil protection cover, which is provided outside of the conduction coil.

119. The plasma processing apparatus according to any one of claims 1 to 97, characterized in that, the slit of the Faraday shield component is filled with insulating material.

1210. The plasma processing apparatus according to claim 1, characterized in that, the plasma processing apparatus is a physical vapor deposition device.