

## UPPER ELECTRODE STRUCTURE, AND PLASMA PROCESSING DEVICE

### Abstract

5            This plasma processing device comprises a plasma processing chamber,  
a substrate support which is disposed in the plasma processing chamber and which  
includes a lower electrode, an upper electrode structure which is disposed above  
the substrate support, and a power source, wherein: the upper electrode structure  
includes a cooling plate having a refrigerant flow passage, an electrode plate  
10       disposed below the cooling plate, and an electrostatic adsorption film which is  
formed on a lower surface of the cooling plate and which is configured to subject  
the electrode plate to electrostatic adsorption; the electrostatic adsorption film  
includes a dielectric part, and at least one electrical conductor part formed in the  
dielectric part; and the power source is electrically connected to the electrical  
15       conductor part.

Fig. 3