ABSTRACT

There is provided a method of determining an application limit of an electrostatic chuck, in which method a determination can be accurately made as to whether the electrostatic chuck has reached the application limit or not. The electrostatic chuck 2 has a first electrode 4 and a second electrode 4', and a coating layer 5 made of a dielectric material to cover both the electrodes 4, 4'. By applying a voltage from a power supply 7 between the first and the second electrodes 4, 4', a to-be-processed substrate S that is mounted on a surface of the coating layer is attracted. A current value that flows between the first and the second electrodes 4, 4' in a state of attracting the to-be-processed substrate S is detected by an ammeter 8. When the detected current value has exceeded a predetermined threshold value, a determination is made that the electrostatic chuck 2 has reached the application limit. The threshold value is set to different values depending on various kinds of to-be-processed substrates whose rear surfaces coming into contact with the electrostatic chuck 2 have different resistance values.