ABSTRACT

A vacuum processing device and a vacuum processing method that strongly chuck and hold an insulating substrate when plasma processing is performed are provided. The vacuum processing device 1 includes a vacuum chamber 11 that is grounded; a vacuum evacuation device 19 connected to the vacuum chamber 11; a chuck device 40 arranged inside the vacuum chamber 11; a chuck power supply 16 for applying an output voltage to a single-pole type electrode 3 provided in the chuck device 40; a plasma generation gas introduction device 21 for introducing a plasma generation gas into the vacuum chamber 11; and a plasma generation portion 20 which converts the plasma generation gas into plasma. An object to be processed 6 is arranged on the chuck device 40, and the chuck power supply 16 applies an output voltage to the single-pole type electrode 3 while the plasma is being generated inside the vacuum chamber 11, and the object to be processed 6 is processed by the plasma while the object to be processed 6 is being chucked by the chuck device. An insulating substrate is used as the object to be processed 6 and the chuck power supply 16 applies the output voltage that periodically changes between a positive voltage and a negative voltage to the single-pole type electrode.