

# **SEMICONDUCTOR PROCESSING EQUIPMENT AND IMPEDANCE-MATCHING**

## **METHOD**

### **ABSTRACT**

Embodiments of the present disclosure provide semiconductor processing equipment and an impedance-matching method of the semiconductor processing equipment to solve the problem of low impedance-matching efficiency in the existing semiconductor processing process. The method includes a process preparation step of obtaining currently stored impedance-matching data corresponding to the process ignition step, the impedance-matching data including a parameter adjustment position corresponding to a parameter adjustable device in the impedance-matching device of the semiconductor process equipment, and adjusting the parameter value of the parameter adjustable device according to the parameter adjustment position, and a processing ignition step of applying RF power into a processing chamber of the semiconductor process equipment through the impedance-matching device, performing impedance matching through the impedance-matching device, determining the current parameter adjustment position of the parameter adjustable device when the impedance is matched, and updating the impedance-matching data according to the current parameter adjustment position. In the technical solution, the parameter value of the parameter-adjustable device can be accurately and automatically adjusted according to the parameter adjustment position in the impedance-matching data, which shortens the impedance-matching time and improves the impedance-matching efficiency.

Fig. 1