

ABSTRACT

The present invention provides an electrochemical etching method and an electrochemical etching apparatus, relating to the technical field of semiconductor processing. The electrochemical etching method comprises: performing a metallization treatment on the back surface of an object to be etched, where the back surface does not need to be etched, so as to form a metal layer on the back surface of the object to be etched; and performing an electrochemical etching treatment on the front surface of the object to be etched, where the front surface needs to be etched. Before the electrochemical etching treatment, the metallization treatment is first performed on the back surface of the object to be etched, which can greatly reduce the resistance of the object to be etched, thereby effectively avoiding the edge effect on the object to be etched. By supplying power to the metal layer on the back surface of the object to be etched, the potentials at various positions on the surface of the object to be etched can be accurately controlled, so that the potentials at all positions of the object to be etched remain consistent. The above method avoids the uneven distribution of current density during the etching process, thereby enabling accurate control of the etching rate of the object to be etched and greatly reducing the difficulty of electrochemical etching for the object to be etched with poor electrical conductivity.