

ABSTRACT

An electroplating apparatus, comprising a membrane frame, wherein the membrane frame comprises a middle channel and a middle blocking wall defining the middle channel. The middle blocking wall has no circle with the center of a substrate as the center in the orthographic projection region on the plane where the substrate is located. When the substrate is subjected to an electroplating process in the electroplating apparatus, a trajectory formed at any point in a blocked region corresponding to the middle blocking wall on the substrate is the circle with the center of the substrate as the center. Since the middle blocking wall is designed so that there is no circle with the center of the substrate as the center in the orthographic projection region on the plane where the substrate is located, the rotation trajectory of any point in the blocked region corresponding to the middle blocking wall on the substrate will not be completely included in the range of the orthographic projection region. Therefore, an electric field between any point on the substrate and an anode will not be shielded by the middle blocking wall all the time, and the flow field of the electroplating liquid in the blocked region on the substrate will not be obviously reduced at the same time. Finally, a sudden change of the electroplating thickness of the blocked region on the substrate is greatly weakened, and the change of the electroplating thickness is basically smooth.