

SEMICONDUCTOR PROCESS CHAMBER AND SEMICONDUCTOR PROCESS EQUIPMENT

ABSTRACT

The present disclosure relates to the field of semiconductor technology, and more particularly to a semiconductor process chamber and semiconductor process equipment. The semiconductor process chamber includes a chamber body, a carrier, a magnetron assembly, a bias magnetic field assembly, and a magnetic shielding member. The bias magnetic field assembly is located inside the chamber body and surrounds the carrier. The magnetic shielding member is located above the bias magnetic field assembly and is configured to guide the bias magnetic field above the bias magnetic field assembly, thereby reducing the magnetic field coupling of the bias magnetic field assembly and the magnetron assembly. The semiconductor process equipment includes the above semiconductor process chamber. The semiconductor process chamber and semiconductor process equipment can reduce or even avoid the magnetic field coupling superposition of the bias magnetic field assembly and the magnetron assembly, ensuring the uniformity of plasma concentration and sputtering rate on the target surface as much as possible, reducing or even avoiding abnormal fluctuations in voltage applied to the target, and ensuring the uniformity of the corrosion depth on the target surface and the uniformity of the magnetic thin film deposited on the surface of wafer.

FIG. 2A