

PROCESS CHAMBER CLEANLINESS DETECTION METHOD AND PROCESS CHAMBER

ABSTRACT

The present disclosure provides a process chamber cleanliness detection method and a process chamber. The process chamber includes a chamber body, and at least one crystal oscillator fixedly disposed on the chamber body and having a deposition detection surface facing an interior of the chamber body. The process chamber cleanliness detection method includes: detecting a current natural frequency of the crystal oscillator; determining, based on the current natural frequency of the crystal oscillator, a corresponding thickness of a deposited film layer on an inner wall of the chamber body; and when the thickness of the deposited film layer exceeds a first preset thickness threshold, determining that the process chamber needs to be cleaned. By determining the thickness of the deposited film layer through the crystal oscillator in the process chamber, the present disclosure can enable real-time and accurate monitoring of an interior state of the process chamber without introducing a wafer to be detected and performing a specific detection process, thereby improving the efficiency of process chamber maintenance, ensuring the semiconductor process effect, and increasing the wafer product yield.

FIGURE 1