

ABSTRACT

The present invention discloses a furnace tube for plasma enhanced thin film deposition, comprising: a process tube, having a reaction chamber and at least one ionization chamber constructed therein; a gas supply tube, for transporting the process gas to be ionized to the ionization chamber. After the process gas to be ionized is ionized in the ionization chamber, the ionized process gas enters the reaction chamber, so as to deposit a corresponding thin film on the surface of a substrate, or undergo an adsorption reaction to realize layer-by-layer growth of the thin film on the surface of the substrate. A first electrode and a second electrode are located in the process tube and at the middle position of the ionization chamber. Wherein, the first electrode and/or the second electrode are/is supported by a baffle plate, and one end of the baffle plate is connected to the corresponding electrode, and the other end of the baffle plate is connected to the inner wall of the ionization chamber, so that the process gas to be ionized passes between the first electrode and the second electrode. The present invention improves the ionization efficiency of the process gas.