

ABSTRACT**ARTIFICIAL DIAMOND PRODUCTION DEVICE AND MICROWAVE TRANSMITTING MODULE THEREOF**

The present invention is an artificial diamond production device. A reaction chamber (10) has a window (12). The diamond holder (30) has a focus area (31) facing toward the window (12). The microwave transmitting module is disposed outside the reaction chamber (10) and has a microwave generator (40), a focusing-lens assembly (50), and a focusing mechanism (60). The microwave generator (40) emits the microwave into the diamond holder (30) via the window (12). The focusing-lens assembly (50) is disposed between the diamond holder (30) and the microwave generator (40). The focusing mechanism (60) is connected to the focusing-lens assembly (50) and a distance (D) between the focusing-lens assembly (50) and the microwave generator (40) is changed by the focusing mechanism (60) to focus the microwave on the focus area (31) to improve the efficiency of producing artificial diamonds.

Fig. 3