

SEMICONDUCTOR PROCESSING APPARATUS AND MAGNETRON MECHANISM

ABSTRACT

Embodiments of the present disclosure provide a semiconductor processing apparatus and a magnetron mechanism thereof. The magnetron mechanism is applied to the semiconductor processing apparatus and includes a backplane, an outer magnetic pole, and an inner magnetic pole. The outer magnetic pole is arranged on a bottom surface of the backplane and encloses to form accommodation space. The inner magnetic pole is arranged on the bottom surface of the backplane and located in the accommodation space. The inner magnetic pole can move to change corrosion areas of the target material. The distance between the inner magnetic pole and the outer magnetic pole is always greater than a predetermined distance during the movement. The semiconductor processing apparatus and the magnetron mechanism thereof of embodiments of the present disclosure can achieve the full target corrosion in a sputtering environment in a high-pressure state. Thus, process particle contamination is effectively controlled by improving the thickness uniformity of the thin film.

Fig. 1