

ABSTRACT

The present application provides a thin-film deposition apparatus and a thin-film deposition method. The thin-film deposition apparatus comprises: a heating unit, including a heating tray for heating a substrate and a support shaft for supporting the heating tray; a rotating ring, for supporting the substrate, the rotating ring being arranged around the heating tray; a power transmission unit, fixedly connected to the rotating ring; a two-stage magnetic fluid, fixedly connected to the power transmission unit; wherein, the power transmission unit and the two-stage magnetic fluid are movably mounted on the support shaft; when driven, the power transmission unit and the two-stage magnetic fluid drive the rotating ring to move, and drive the substrate to perform a rotational motion and/or a lifting motion via the rotating ring. The present application achieves multiple thin-film depositions through independent movement of the substrate and the heating unit, thereby improving the uniformity of the thin film on the substrate surface.