ABSTRACT

Provided is a RF sputtering apparatus in which film forming can efficiently be made by suppressing an amount of reverse sputtering at a substrate. The RF sputtering apparatus SM, according to this invention, in which RF power is applied in vacuum to a target (21) to thereby perform film forming processing on one surface (Wa) of the substrate (W) is provided with a stage (4) for holding the substrate in a state in which one surface thereof is left open in an electrically insulated state. The stage has a dented portion (42) on such a holding surface (41) as is adapted to hold thereon the substrate. A movable body (44), which is movable toward, and away from, the substrate, and is connected to grounding is disposed in a space (43) defined by such an opposite surface of the substrate as is opposite to said one surface and an outline of the dented portion when the substrate is held such that a peripheral edge portion thereof is held so as to come into contact with the holding surface of the stage.