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(54) **Title:** APPARATUS AND METHOD FOR CLEANING SEMICONDUCTOR WAFERS

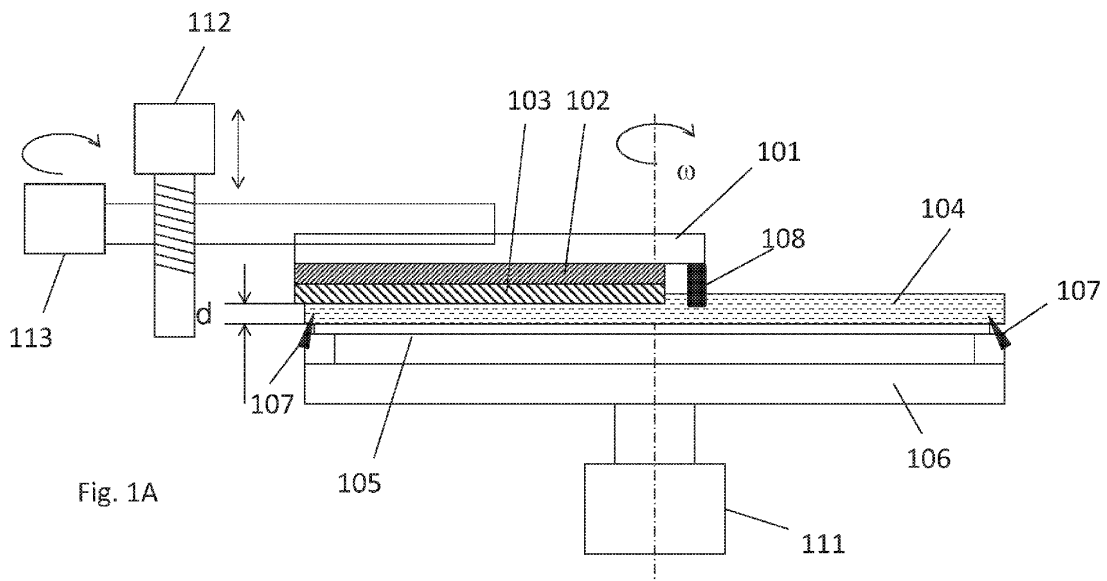


Fig. 1A

(57) **Abstract:** An apparatus for cleaning a semiconductor wafer comprises a chuck (106), an ultra or mega sonic device, an actuator (113), at least one dispenser (108, 209) and a rotating driving mechanism (111). The chuck (106) holds the semiconductor wafer (105). The actuator (113) drives the ultra or mega sonic device to a position above the surface of the semiconductor wafer (105) and a gap is formed between the ultra or mega sonic device and the surface of the semiconductor wafer (105). The at least one dispenser (108, 209) sprays cleaning liquid on the surface of the semiconductor wafer (105). The rotating driving mechanism drives the chuck (106) to rotate at a spin speed lower than a set spin speed for ensuring that the gap between the ultra or mega sonic device and the surface of the semiconductor wafer (105) is fully and continuously filled with the cleaning liquid (104), making the ultra or mega sonic energy be stably transferred to the entire surface of the semiconductor wafer (105) through the cleaning liquid (104). A method for cleaning a semiconductor wafer is also disclosed.

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