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# United States Patent [19]

Kikuchi et al.

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[54] APPARATUS FOR SPIN COATING, A METHOD FOR SPIN COATING AND A METHOD FOR MANUFACTURING SEMICONDUCTOR DEVICE

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[\*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

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## Related U.S. Application Data

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## [30] Foreign Application Priority Data

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[58] Field of Search ..... 118/695, 700, 118/706, 52; 427/240, 498, 512, 307, 299; 437/228, 231; 134/1.3, 34, 36; 438/763, 778, 780, 782

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## [57] ABSTRACT

The invention relates to an apparatus for spin coating for forming a resist film, an SOG film, a polyimide film, and the like in manufacturing semiconductor devices and has the object of forming a coated film with a specified and uniform thickness even in case that an amount of discharged coating solution is a little. An apparatus for spin coating of the invention comprises a rotatable table for placing a wafer, a coating solution discharging means which is set above the rotatable table and discharges a coating solution on the surface of the wafer, and a solvent discharging means which is above the rotatable table and discharges a solvent capable of dissolving the coating solution.

5 Claims, 10 Drawing Sheets

