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Sanada et al.

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[54] **COATING SOLUTION APPLYING METHOD AND APPARATUS**

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[57] **ABSTRACT**

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A method of applying a coating solution to a surface of a substrate to form a film of desired thickness thereon. The substrate is spun at low speed with a predetermined supplying rotational frequency, and the coating solution is supplied to a region centrally of the substrate. The substrate is decelerated to a predetermined standby rotational frequency lower than the supplying rotational frequency before the coating solution spreads over an entire surface of the substrate. Then, the substrate is accelerated to a target rotational frequency higher than the supplying rotational frequency before the coating solution spreads over the entire surface of the substrate. Subsequently, the substrate is spun at high speed with a predetermined film-forming rotational frequency, thereby coating the surface of the substrate with a film of desired thickness. The supply of the coating solution is continued at least during the deceleration to the standby rotational frequency.

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[30] **Foreign Application Priority Data**

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[51] **Int. Cl.⁶** **B05D 3/12**

[52] **U.S. Cl.** **427/240; 427/385.5; 437/231**

[58] **Field of Search** 427/240, 385.5; 437/231; 118/52

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18 Claims, 9 Drawing Sheets

