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# United States Patent [19]

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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 for forming a coating film of desired thickness. The coating solution begins to be supplied to a region centrally of a substrate. The spinning substrate is accelerated from a supplying rotational frequency to a higher, target rotational frequency before the coating solution is spread by the supplying rotational frequency to cover an entire surface of the substrate. Then, the supply of the coating solution is stopped. Subsequently, the substrate is spun with a film-forming rotational frequency lower than the target rotational frequency to form the coating film. The substrate is spun at high speed with the target rotational frequency for a variable period of time to adjust thickness of the coating film.

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[30] **Foreign Application Priority Data**

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[51] **Int. Cl.<sup>6</sup>** ..... **B05D 3/12**

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

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

[56] **References Cited**

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**16 Claims, 7 Drawing Sheets**