

United States Patent [19]

Sugimoto et al.

4,315,705

4,838,979

4,856,456

5,013,586

5,116,250

5,209,180

Patent Number: [11]

5,591,264

Date of Patent: [45]

Jan. 7, 1997

[54] SPIN COATING DEVICE					
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[21]	Appl. No.: 405,133				
[22]	Filed: Mar. 16, 1995				
[30] Foreign Application Priority Data					
	22, 1994 [JP] Japan 6-075326 18, 1994 [JP] Japan 6-129571				
	Int. Cl. ⁶				
[58]	Field of Search				
[56]	References Cited				

U.S. PATENT DOCUMENTS

6/1989 Nishida et al. 156/345

8/1989 Hillman et al. 118/500

5/1991 Cavazza 427/240

5/1992 Sago et al. 118/52

5/1993 Shoda et al. 118/52

			Sasaki et alFujiyama et al				
EOREIGN PATENT DOCUMENTS							

2122520	5/1990	Japan .
4303919	10/1992	Japan .
4369210	12/1992	Japan .
5109612	4/1993	Japan .
5114554	5/1993	Japan .

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ABSTRACT

A spin coating device for a substrate, in which a uniform thin film can be formed by applying an application liquid to a substrate and the quality of the substrate can be further improved. The spin coating device for a substrate comprises a turntable 2 for holding and rotating a substrate 1; an application liquid supply means 4 for supplying an application liquid 3 to the rotating substrate 1: splash preventing means 20, which are arranged at the periphery of the substrate 1 held by the turntable 2, prevent the droplets of the application liquid from splashing and provide with an opening portion 10 for circulating the flow A of external air in an area ranging from the central portion toward the peripheral portion of the substrate 1 held by the turntable 2. Exhaust means 8 and 9 for exhausting air from within the splash preventing means 20 are provided.

18 Claims, 3 Drawing Sheets

