

United States Patent [19]

Davis et al.

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[54]	SPIN COATING BOWL EXHAUST SYSTEM					
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			118/320			
[58]	[58] Field of Search					
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[56]		Re	eferences Cited			
U.S. PATENT DOCUMENTS						
4	,393,807 7	/1983	Fujimura et al 118/320			
	/ /	/1985	Cuthbert et al 118/52			
	/ /	/1989 /1992	Ikeno et al			
		/1992	Hurtig			
		/1996	Matsukawa et al			

	5/1997 10/1997	Nanbu et al	118/52			
FOREIGN PATENT DOCUMENTS						
2-101732 2-216633	4/1990 8/1990	Japan Japan	118/52 118/52			
Primary Examiner—Donald E. Czaja Assistant Examiner—Michael P. Colaianni Attorney, Agent, or Firm—Kirkpatrick & Lockhart LLP [57] ABSTRACT						

An apparatus for exhausting coating materials used in the process of spin coating a top surface of a wafer, the wafer having an edge and a bottom surface that is supported and rotated by a rotatable chuck attached by a shaft to a spin motor. The apparatus includes a bowl having an exhausted drain configured to receive excess liquid and vapor from the spin coating and an assembly configured to maintain the drain at a negative pressure differential relative to the bowl. In a preferred embodiment, a baffle is attached to the bottom to limit the flow of the liquid and vapor into the drain to a predetermined direction.

9 Claims, 8 Drawing Sheets

