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Choi et al.

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[54] **WAFER SPIN COATING SYSTEM WITH PHOTORESIST PUMPING UNIT CHECK FUNCTION**

[56] **References Cited**

U.S. PATENT DOCUMENTS

5,766,671 6/1998 Matsui 427/8

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[57] **ABSTRACT**

A wafer spin coating system, for coating a layer of photoresist on a wafer, includes a spin coating unit, a pumping unit and a sensing unit. A first controller in the spin coating unit controls the operation of a rotating device with the wafer mounted thereon. The first controller also outputs a photoresist pumping operation order. A second controller in the pumping unit receives the pumping operation order and outputs a pumping operation commencing signal and a valve operation signal that opens and closes a valve to control a gas feeding operation. The sensing unit receives the pumping operation commencing signal and the valve operation signal, and selectively outputs an abnormal status control signal to the first controller to stop the pumping operations if an abnormality is detected.

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[30] **Foreign Application Priority Data**

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[51] **Int. Cl.⁶** **B05D 3/12**

[52] **U.S. Cl.** **427/8**; 427/240; 427/385.5; 437/231; 118/52; 118/688; 118/692

[58] **Field of Search** 427/240, 385.5, 427/8; 437/231; 118/52, 665, 692

13 Claims, 3 Drawing Sheets

