

US005874128A

5,874,128

Feb. 23, 1999

United States Patent [19]

Kim

[54] METHOD AND APPARATUS FOR UNIFORMLY SPIN-COATING A PHOTORESIST MATERIAL

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[21] Appl. No.: **885,793**

[22] Filed: Jun. 30, 1997

[30] Foreign Application Priority Data

Jan. 22, 1997 [KR] Rep. of Korea 1997 1708

[51] **Int. Cl.**⁶ **B05D 3/12**; B05C 11/02

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

[56] References Cited

U.S. PATENT DOCUMENTS

5,264,246 11/1993 Ikeno 427/240

FOREIGN PATENT DOCUMENTS

Patent Number:

Date of Patent:

[11]

[45]

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[57] ABSTRACT

A method and apparatus for uniformly spin-coating photoresist material on wafers before the wafers are subjected to a photoetching process. The spin-coating apparatus comprises a first rotating device for rotating a rotating connector about a first axis and a second rotating device located on the outer portion of the rotating connector. The second rotating device rotates a wafer about a second axis while the rotating connector rotates around the first axis. The first and second axes are parallel to each other but are spaced apart by a designated distance. The designated distance can be adjusted and a plurality of second rotating devices may be connected to outer portions of the rotating connector.

20 Claims, 4 Drawing Sheets

