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[54] SEMICONDUCTOR PROCESSING SPRAY COATING APPARATUS

[75] Inventors: **Timothy J. Reardon; Craig P. Meuchel; Thomas H. Oberlitner**, all of Kalispell, Mont.

[73] Assignee: **Semitool, Inc.**, Kalispell, Mont.

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Related U.S. Application Data

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[51] Int. Cl.⁷ **H01L 21/4763**; B05D 1/02; B05D 3/02; B05D 3/12

[52] U.S. Cl. **438/782**; 438/760; 427/240; 427/372.2; 427/421; 427/422; 427/425

[58] Field of Search 427/240, 372.2, 427/421, 422, 425, 72, 110, 168; 118/52, 302, 323, 321; 438/760, 782; 134/33

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Primary Examiner—Shrive Beck
Assistant Examiner—Michael Barr
Attorney, Agent, or Firm—Lyon & Lyon LLP

[57] ABSTRACT

A semiconductor processor for spray coating wafers or other semiconductor articles. The processor has a compartment in which are mounted a wafer transfer, coating station and thermal treatment station. The coating station has a spray processing vessel in which a movable spray-head and rotatable wafer holder. The spray station has coating viscosity control features. An ultrasonic resonating spray-head is precisely supplied with coating from a metering pump. The heat treatment station heat cures the coating and then cools the wafer. The system allows coatings to be applied in relatively uniform conformational layers upon irregular surfaces.

28 Claims, 10 Drawing Sheets

