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Neoh

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[54] SUBSTRATE COATING APPARATUS

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[57] ABSTRACT

[21] Appl. No.: **445,932**

There is described a spin coating apparatus for applying a liquid material to a semiconductor wafer, or the like, that has a spin head for supporting a wafer on the top surface, a motor to rotate the spin head, and a nozzle located over the spin head for dispensing liquid on the wafer mounted on the spin head. A liquid well is provided having a bottom outlet opening, a bottom inlet opening, a top vent opening, and a heat exchange jacket on at least the well side walls. A shut-off valve is located between the nozzle and well, with the inlet of the valve communicating with the bottom outlet of the well, and the inlet of the valve communicating with the nozzle. A liquid supply source provides liquid to the well through the inlet opening of the well. A multi-stage vent and purge system is provided to vent and selectively introduce either gas or liquid cleaning medium into the well through the top vent opening. The distance between the nozzle and the spin head is controlled with a nozzle support.

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Related U.S. Application Data

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[51] Int. Cl.⁶ **B05C 5/00**

[52] U.S. Cl. **118/52; 118/319; 118/321; 118/323; 134/902**

[58] Field of Search 118/52, 56, 302, 118/319, 320, 321, 323; 134/902; 427/425

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11 Claims, 4 Drawing Sheets

