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Wang et al.

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[54] **STRIATION-FREE COATING METHOD FOR HIGH VISCOSITY RESIST COATING**

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[58] **Field of Search** **427/240, 385.5, 427/299, 384; 437/231**

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[57] **ABSTRACT**

A method is proposed where striation-free coating of photoresist on a wafer is possible. This is accomplished by first prewetting the wafer with a particular agent, or solution, at a particular rate while the wafer is being accelerated to a predetermined rotational speed. Then the prewetting solution is cut off, after which the wafer is accelerated to a second rotational speed. Next, a photoresist of relatively high viscosity is dispensed concurrently with the wafer being accelerated to a third rotational speed. In order to achieve much reduced thickness variations than found in prior art, the third speed and the dispense rate are set at an unexpectedly lower value than that would be expected with a high viscosity photoresist. It is shown that with the disclosed method, critical dimensions of linewidths are preserved and product yield is improved.

23 Claims, 3 Drawing Sheets