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# United States Patent [19]

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Akram et al.

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[54] **METHOD FOR FORMING A THIN UNIFORM LAYER OF RESIST FOR LITHOGRAPHY**

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[75] Inventors: **Salman Akram; Paul Shirley; William Rericha**, all of Boise, Id.

*Primary Examiner*—Kathleen Duda  
*Attorney, Agent, or Firm*—Stephen A. Gratton

[73] Assignee: **Micron Technology, Inc.**, Boise, Id.

### [57] ABSTRACT

[21] Appl. No.: **520,871**

A method for forming a layer of resist on a non-planar substrate includes the steps of: dispensing resist onto the substrate; spinning the substrate to spread the resist; and then vibrating the substrate to eliminate voids in the resist. Optionally, the substrate can be inverted and vibrated at the same time to distribute the resist over the sidewalls of any projections or plateaus on the non-planar substrate. Following the vibrating and optional inversion steps, the resist is partially hardened, an edge bead is removed and a backside of the resist is washed. These steps are followed by soft bake, exposure and development of the layer of resist.

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[51] Int. Cl.<sup>6</sup> ..... **G03F 7/00**

[52] U.S. Cl. .... **430/327; 430/311; 430/330; 430/329**

[58] Field of Search ..... **430/269, 311, 430/327, 329, 330; 427/58, 96**

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**32 Claims, 3 Drawing Sheets**

