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(54) Title: METHOD AND APPARATUS FOR CLEANING SEMICONDUCTOR WAFERS USING COMPRESSED AND/OR PRESSURIZED FOAMS, BUBBLES, AND/OR LIQUIDS

(57) Abstract: An apparatus and method are disclosed in which a semiconductor substrate having a surface containing contaminants is cleaned or otherwise subjected to chemical treatment using a foam. The semiconductor wafer is supported either on a stiff support (or a layer of foam) and foam is provided on the opposite surface of the semiconductor wafer while the semiconductor wafer is supported. The foam contacting the semiconductor wafer is pressurized using a form to produce a jammed foam. Relative movement between the form and the semiconductor wafer, such as oscillation parallel and/or perpendicular to the top surface of the semiconductor wafer, is then induced while the jammed foam is in contact with the semiconductor wafer to remove the undesired contaminants and/or otherwise chemically treat the surface of the semiconductor wafer using the foam.

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