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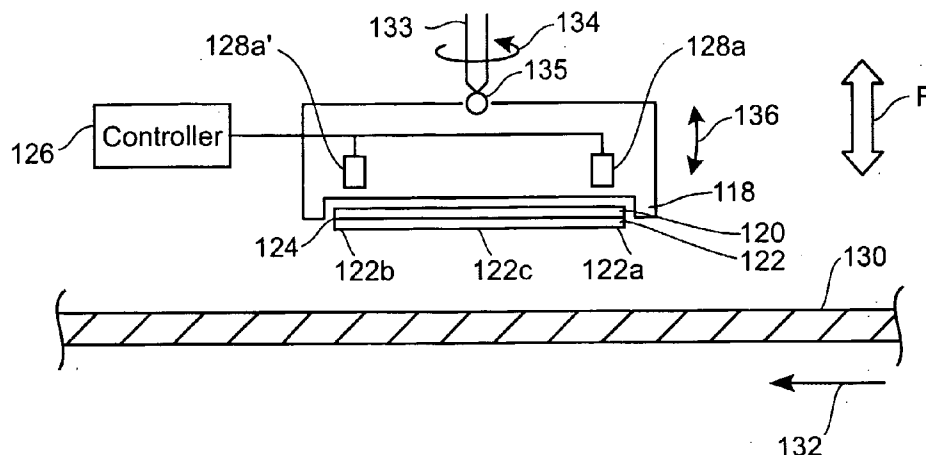
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR METROLOGICAL PROCESS CONTROL IMPLEMENTING COMPLIMENTARY SENSORS



(57) Abstract: A method for detecting a thickness of a layer of a wafer is provided. The method includes defining a particular radius of a wafer carrier configured to engage the wafer to be processed. The method also includes providing a plurality of sensors configured to create a set of complementary sensors. Further included in the method is distributing the plurality of sensors along the particular radius within the wafer carrier such that each sensor of the plurality of sensors is out of phase with an adjacent sensor by a same angle. The method also includes measuring signals generated by the plurality of sensors. Further included is averaging the signals generated by the plurality of sensors so as to generate a combination signal. The averaging is configured to remove noise from the combination signal such that the combination signal is capable of being correlated to identify the thickness of the layer.

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