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(54) **Title:** PREDICTION AND METROLOGY OF STOCHASTIC PHOTORESIST THICKNESS DEFECTS

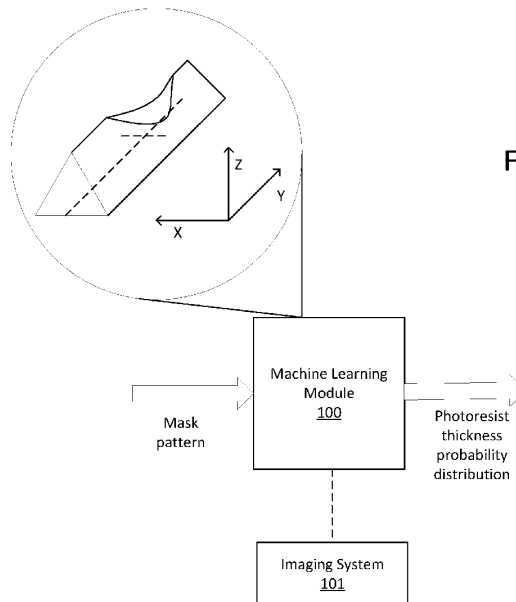


FIG. 1

(57) **Abstract:** A mask pattern for a semiconductor device can be used as an input to determine a photoresist thickness probability distribution using a machine learning module. For example, the machine learning module can determine a probability map of Z-height. This can be used to determine stochastic variation in photoresist thickness for a semiconductor device. The Z-height may be calculated at a coordinate in the X-direction and Y-direction.

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