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(54) Title: LITHOGRAPHY MASK REPAIR BY SIMULATION OF PHOTORESIST THICKNESS EVOLUTION

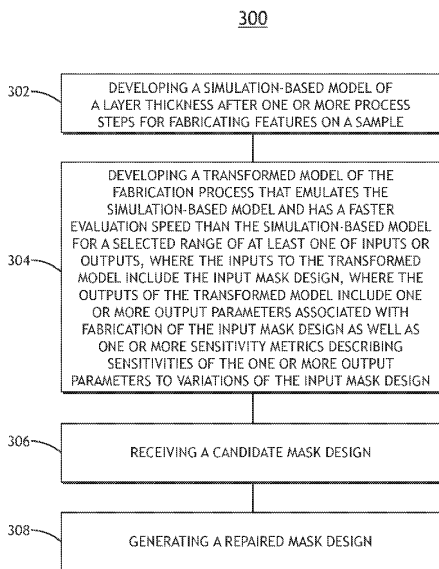


FIG. 3A

(57) Abstract: A system for mask design repair may develop a simulation-based model of a layer thickness after one or more process steps for fabricating features on a sample, develop a transformed model of the fabrication process that emulates the simulation-based model and has a faster evaluation speed than the simulation-based model, and where the inputs to the transformed model include the input mask design, and where the outputs of the transformed model include one or more output parameters associated with fabrication of the input mask design as well as one or more sensitivity metrics describing sensitivities of the one or more output parameters to variations of the input mask design. The system may further receive a candidate mask design and generate a repaired mask design based on the transformed model and the candidate mask design.

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