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(54) Title: ECO-EFFICIENCY MONITORING AND EXPLORATION PLATFORM FOR SEMICONDUCTOR MANUFACTURING

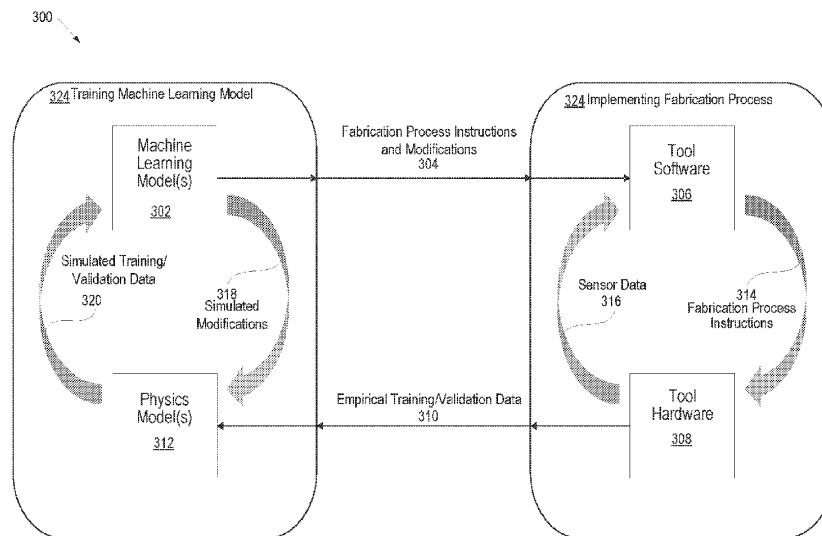


FIG. 3

(57) Abstract: Technologies directed to an eco-efficiency monitoring and exploration platform for semiconductor manufacturing. One method includes receiving, by a processing device, first data indicating an update to a substrate fabrication system having a first configuration of manufacturing equipment and operating to one or more process procedures. The method further includes determining, by the processing device, using the first data with a digital replica, environmental resource data. The digital replica includes a digital reproduction of the substrate fabrication system. The environmental resource usage data indicates an environment resource consumption that corresponds to performing the one or more process procedures by the substrate fabrication system incorporating the update. The method further includes providing, by the processing device, the environmental resource usage data for display on a graphical user interface (GUI).

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