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(54) Title: DETERMINING SUBSTRATE PROFILE PROPERTIES USING MACHINE LEARNING

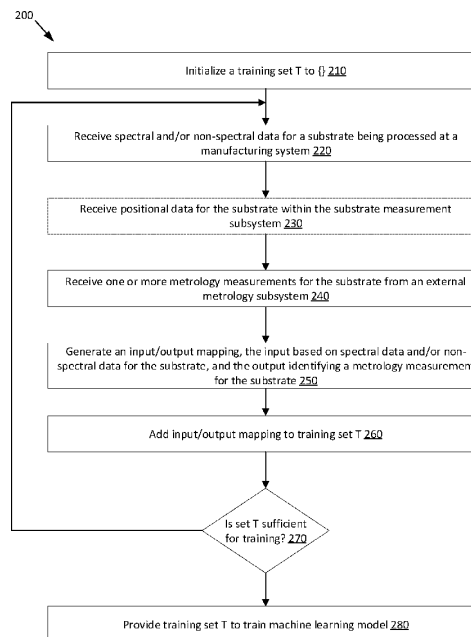


FIG. 2

(57) Abstract: A method for training a machine learning model to predict metrology measurements of a current substrate being processed at a manufacturing system is provided. Training data for the machine learning model is generated. A first training input including historical spectral data and/or historical non-spectral data associated with a surface of a prior substrate previously processed at the manufacturing system is generated. A first target output for the first training input is generated. The first target output includes historical metrology measurements associated with the prior substrate previously processed at the manufacturing system. Data is provided to train the machine learning model on (i) a set of training inputs including the first training input, and (ii) a set of target outputs including a first target output.

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