

ABSTRACT

Included are: at least one sensor that detects a physical quantity of an object during polishing and/or during cleaning and/or during drying of a substrate; a conversion section that converts a sensor value during polishing and/or during cleaning and/or during drying detected by the sensor into a feature amount for each processing step with respect to a trained machine learning model; and an inference section that outputs at least one predicted value of a number of defects, a size of a defect, and a position of a defect in a target substrate by inputting target data including the feature amount to the trained machine learning model, in which the trained machine learning model is trained using a learning data set whose input data includes a feature amount obtained by converting a sensor value during polishing and/or during cleaning detected by the sensor in a target production line or a production line of an identical type with the target production line for each processing step, and whose output data is at least one of a number of defects, a size of a defect, and a position of a defect in the substrate.

Figure 2