

INFORMATION PROCESSING SYSTEM, INFORMATION PROCESSING
METHOD, PROGRAM, AND SUBSTRATE PROCESSING APPARATUS

ABSTRACT

A system includes a first artificial intelligence unit that performs learning using a plurality of first learning datasets input values of which are sets of parameters different from each other in a combination of parameter types and output values of which are corresponding performance values of the substrate processing apparatus, and after the learning uses, as an input, each of a plurality of verification datasets including combinations of the parameter types that are same as the combinations of the parameter types at the time of learning, to predict a performance value; a selection unit that selects one set of parameter types from a plurality of sets of parameter types included in the plurality of verification datasets, by using at least one of a value indicating a percentage of correct answer of the predicted performance value, a time required for the learning, and a time required for predicting the performance value; and a second artificial intelligence unit that performs learning using a plurality of second learning datasets an input value of which is a set of past parameter values including the selected set of

parameter types and an output value of which is a corresponding past performance value, and after the learning, predicts performance values of the target substrate processing apparatus obtained by changing variable parameters among the parameters including the selected set of parameter types with, as an input, a fixed parameter intrinsically determined for a target substrate processing apparatus among parameters including the selected set of parameter types, and outputs a combination of parameter values yielding a performance value, among the predicted performance values, satisfying an extraction criterion.

Fig. 3