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(54) **Title:** PART, SENSOR, AND METROLOGY DATA INTEGRATION

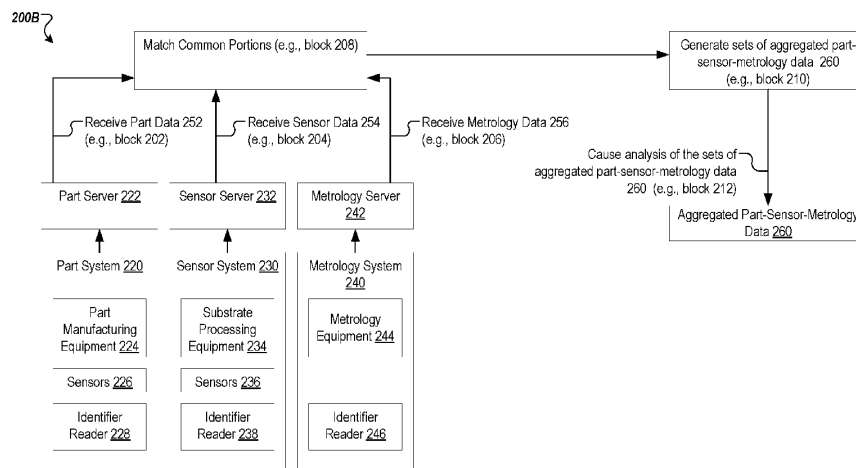


FIG. 2B

(57) **Abstract:** A method includes receiving part data associated with a corresponding part of substrate processing equipment, sensor data associated with one or more corresponding substrate processing operations performed by the substrate processing equipment to produce one or more corresponding substrates, and metrology data associated with the one or more corresponding substrates produced by the one or more corresponding substrate processing operations performed by the substrate processing equipment that includes the corresponding part. The method further includes generating sets of aggregated part-sensor-metrology data including a corresponding set of part data, a corresponding set of sensor data, and a corresponding set of metrology data. The method further includes causing analysis of the sets of aggregated part-sensor-metrology data to generate one or more outputs to perform a corrective action associated with the corresponding part of the substrate processing equipment.

[Continued on next page]

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