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(54) Title: METHOD FOR INTELLIGENT DATA ACQUISITION IN A MEASUREMENT SYSTEM

(57) Abstract

Provided is a novel method for intelligent data acquisition in a measurement system. The method comprises the following steps: (a) providing a measurement system; (b) performing a measurement with the measurement system, thereby obtaining a measurement result; (c) writing the measurement result to a data file on a first storage device; (d) repeating steps (b) and (c) one or more times, thereby accumulating a plurality of measurement results in the data file; (e) generating one or more summary values from the measurement results; (f) saving the one or more summary values to a summary file on the first storage device or on a second storage device; (g) comparing at least one of the one or more summary values with a respective predefined standard summary value corresponding to the at least one summary value, wherein the comparing is made on the basis of a predefined inequality for each summary value being compared; and (h) saving the data file to the first storage device, the second storage device, or a third storage device if one or more of the at least one summary values compared in step (g) is outside of an acceptable range as defined by the respective inequalities, and/or optionally, when a trigger indicates that a condition is present. Particular applicability is found in in–situ moisture concentration measurement in a semiconductor processing apparatus.