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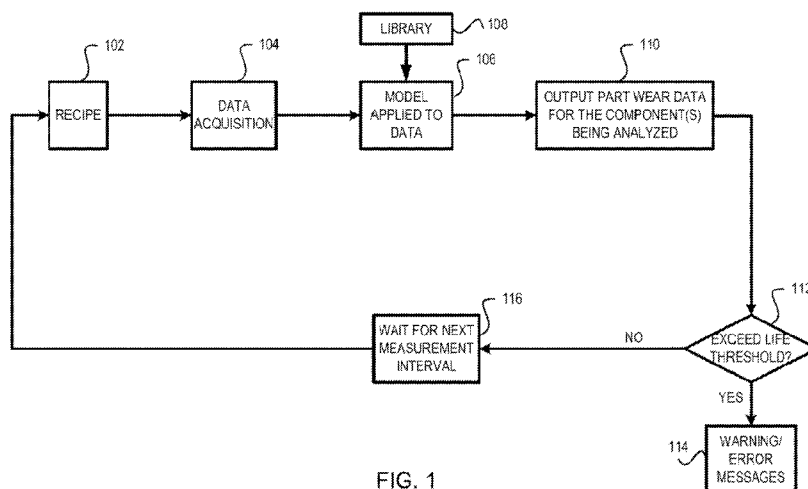


FIG. 1

(57) Abstract: A method for assessing health status of a processing chamber is provided. The method includes executing a recipe. The method also includes receiving processing data from a set of sensors during execution of the recipe. The method further includes analyzing the processing data utilizing a set of multi-variate predictive models. The method yet also includes generating a set of component wear data values. The method yet further includes comparing the set of component wear data values against a set of useful life threshold ranges. The method moreover includes generating a warning if the set of component wear data values is outside of the set of useful life threshold ranges.