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(54) Title: OPTIMISING PROCESS PARAMETERS IN ADDITIVE MANUFACTURING

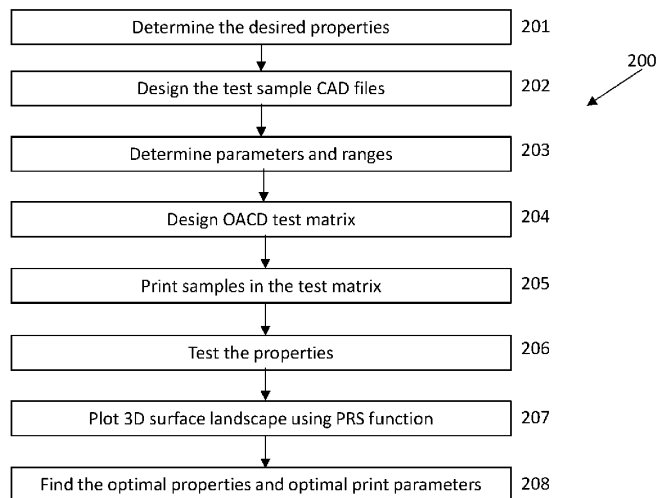


Figure 1

(57) Abstract: A method of determining optimal values of one or more process parameters for printing a part comprises obtaining a plurality of sets of test values for the one or more process parameters. An additive manufacturing system is caused to at least partially generate a plurality of test samples according to a design and the plurality of sets of test values. During or after generation of the plurality of test samples, test data indicative of respective measurements of at least one property of the test samples are obtained. The test data are fitted to a second-order function of the one or more process parameters to determine coefficients of the one or more process parameters. Based on the second-order function and the coefficients, optimal values are determined for the one or more process parameters that result in a global optimum for the at least one property.

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