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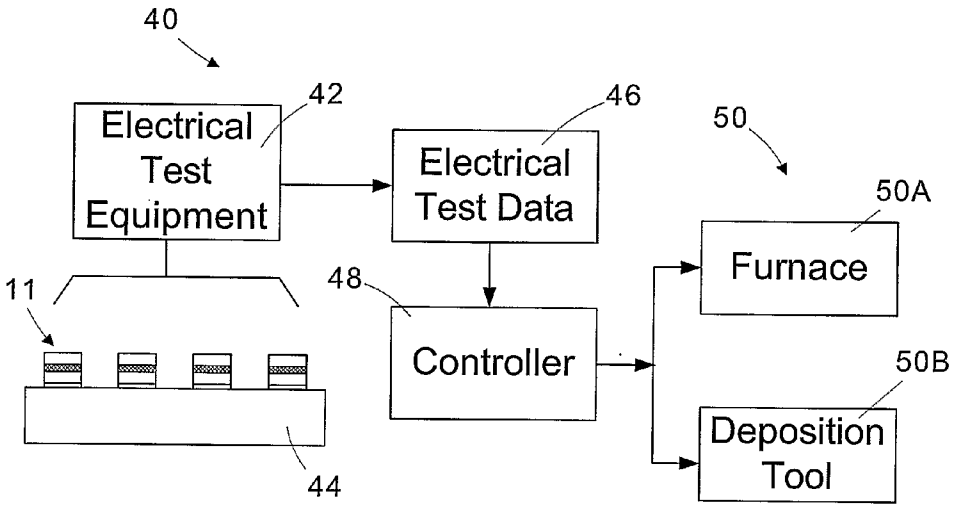
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(54) Title: METHODS OF CONTROLLING PROPERTIES AND CHARACTERISTICS OF A GATE INSULATION LAYER BASED UPON ELECTRICAL TEST DATA, AND SYSTEM FOR PERFORMING SAME



(57) Abstract: The present invention is generally directed to various methods of controlling properties and characteristics of a gate insulation layer (16) based upon electrical test data (46), and a system for performing same. In one illustrative embodiment, the method comprises performing at least one electrical test on at least one semiconductor device, determining at least one parameter of at least one process operation to be performed to form at least one gate insulation layer (16) on a subsequently formed semiconductor device based upon electrical data obtained from the electrical test, and performing at least one process operation comprised of the determined parameter to form the gate insulation layer (16).

WO 2005/010977 A1

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