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(54) Title: METROLOGY BASED ON TIME RESOLVED NON-ACOUSTIC SIGNALS

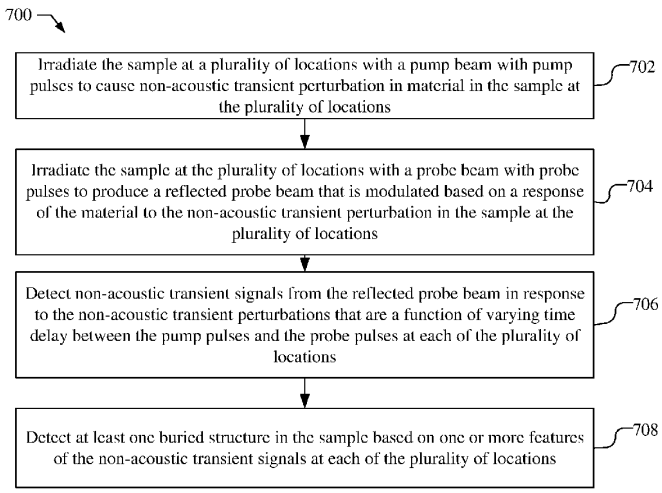

FIG. 7

(57) Abstract: A measuring device can detect and image buried structures, such as voids, in a sample based on the polynomial fit of the time resolved transient signals at a plurality of locations. A pulsed laser beam (pump beam) is used to irradiate the sample at a plurality of locations. The sample may include non-metallic, optically transparent layers that do not produce acoustic signals in response to the pump beams. Non-acoustic transient signals are detected using a probe beam at the plurality of locations. The buried structures are detected and imaged based on feature analysis (e.g., principal component decomposition, or polynomial fit, or other) of the non-acoustic transient signals at the plurality of locations.

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— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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