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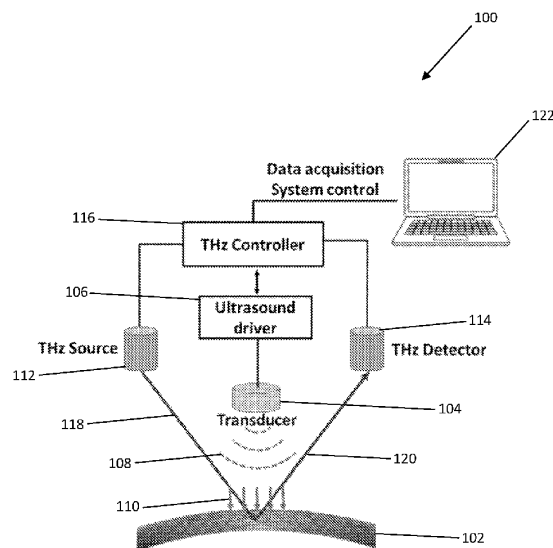


FIG. 1

(57) Abstract: There is provided a system and a method of non-contact measurement of one or more mechanical properties of a material, the system comprising an ultrasonic module comprising an ultrasonic applicator configured to apply ultrasonic pressure on a target region of the material; a detection module comprising an electromagnetic wave emitter and an electromagnetic wave detector, said electromagnetic wave emitter being configured to emit an incident beam of electromagnetic waves towards the target region of the material, and said electromagnetic wave detector being configured to detect an emergent beam of electromagnetic waves reflected from the target region and/or transmitted through the target region; and a processing module configured to determine one or more measures corresponding to the one or more mechanical properties of the material, based on changes in the emergent beam of electromagnetic waves.

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