

SYSTEMS AND METHODS FOR DETERMINING THE VELOCITY OF ULTRASONIC SURFACE SKIMMING LONGITUDINAL WAVES ON VARIOUS MATERIALS

ABSTRACT

[0037] Systems and methods for determining the velocity of ultrasonic surface skimming longitudinal waves on various materials are described herein. In embodiments, a surface skimming longitudinal wave is generated at a first location on a material, at least a portion of that wave is detected at a second location on the material, the time-of-flight of that wave between the first and second locations is determined, and then the velocity of that wave is determined. One or more crystallographic orientations of the material may then be determined based upon that velocity.