

Biotechnology and Healthcare

Title A Method for Measuring An Elasticity Value of The Biological Tissue, An Ultrasonic Device, And An Analyzation Device

Abstract	A method for measuring the mechanical properties of tissue using a portable ultrasound imaging apparatus. An ultrasound imaging apparatus is used to acquire ultrasound image data. An add-on vibrator is used to generate elastic waves, wherein the add-on vibrator is connected to the ultrasound imaging apparatus by a wire for mechanical properties measurement.
Benefits	<ol style="list-style-type: none"> 1. Power: The replaceable battery of the vibrator allows this technology to measure tissue elasticity without losing the power of the ultrasound imaging apparatus, which will be convenient for clinicians. 2. Cost: The design of a detachable vibrator and a wired method make this technique able to be combined with a clinical ultrasound imaging apparatus with a low cost for mechanical property measurement. 3. Stability: Two vibration modes and the elastic waves tracking in two directions enable this technology to formulate stable measurement methods for various tissues of different parts.
Industry Categories	<ul style="list-style-type: none"> • Medical Devices • Non-Destructive Testing • Industrial Ultrasound
Keywords	Ultrasound, elasticity, viscosity, tissues, Vibration, vibrator, shear wave
Patent No.	TW 110138909 · US 17/545,428

Contact Us Department : NCKU Innovation Headquarters
 Contact person : Jerry Liu
 Phone number : 06-2360524 #146
 Email : jerryliu@mail.ncku.edu.tw

