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(54) **ACOUSTIC MICRO IMAGING METHOD AND APPARATUS FOR CAPTURING 4D ACOUSTIC REFLECTION VIRTUAL SAMPLES**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 170 days.

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(52) **U.S. Cl.** **73/602; 73/627**

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(57)

ABSTRACT

For use in acoustic micro imaging, a method (and implementing apparatus) is disclosed for creating a 4D virtual sample data memory. The method comprises employing a pulsed ultrasonic microscope probe to interrogate a sample at three-dimensionally varied locations in the sample. Data developed by the microscope probe includes for each location interrogated a digitized A-scan for that location. The developed data is stored in a data memory.

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23 Claims, 14 Drawing Sheets

