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

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(51) **Int. Cl.**  
**G01N 29/06** (2006.01)

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

(58) **Field of Classification Search** ..... **73/602, 73/627, 629**

See application file for complete search history.

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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.

**9 Claims, 10 Drawing Sheets**

