

Abstracts

Scanning Acoustic Microscope (Abstract)

C.F. Quate. "Scanning Acoustic Microscope (Abstract)." 1976 MTT-S International Microwave Symposium Digest of Technical Papers 76.1 (1976 [MWSYM]): 314-314.

The acoustic microscope - an instrument based on acoustic radiation at microwave frequencies - is designed for viewing the microscopic detail exhibited in the elastic properties of a given object. The most significant and the most recent improvement has been the introduction of mechanical scanning. With this innovation there has been substantial improvement in the resolving power since the new instrument has made it possible to work in liquid water with sound frequencies above 1000 MHz. The resolution in a carefully constructed instrument at these frequencies approaches that of the optical instrument and it permits one to observe both the internal details of biological cells and the fine structure of integrated circuits. Even though the resolving power is not yet equal to the value that is achieved with optical waves it does bring into view an interesting part of the microscopic world.

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