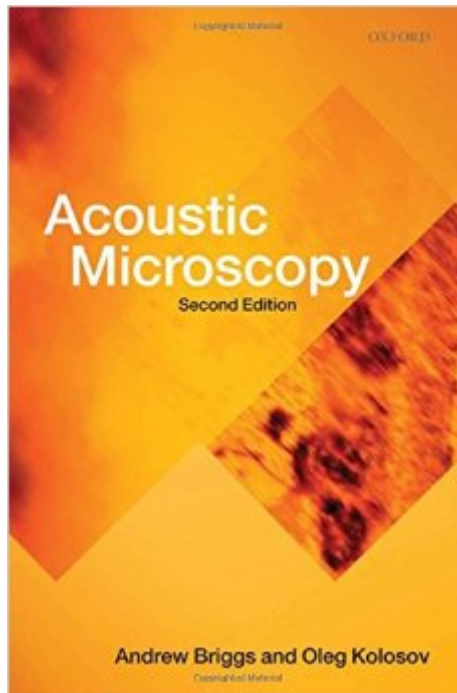


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# Acoustic Microscopy (Monographs On The Physics And Chemistry Of Materials)



## Synopsis

Acoustic microscopy enables you to image and measure the elastic properties of materials with the resolution of a good microscope. By using frequencies in microwave regime, it is possible to make the acoustic wavelength comparable with the wavelength of light, and hence to achieve a resolution comparable with an optical microscope. Solids can support both longitudinal and transverse acoustic waves. At surfaces a unique combination of the two known as Raleigh waves can propagate, and in many circumstances these dominate the contrast in acoustic microscopy. Following the invention of scanning probe microscopes, it is now possible to use an atomic force microscope to detect the acoustic vibration of a surface with resolution in the nanometre range, thus beating the diffraction limit by operating in the extreme near-field. This 2nd edition of Acoustic Microscopy has a major new chapter on the technique and applications of acoustically excited probe microscopy.

## Book Information

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