

## Other Microscopies

### Advances in Acoustic Microscopy edited by Andrew Briggs

Volume 1. Leading international researchers focus on techniques and methods of analysis for quantitative measurement. The discussions cover interior imaging of materials and electronic devices, short fatigue cracks, surface wave measurements, and applications of acoustic microscopy to problems in biology. Other contributions describe the extension of surface wave measurements to 20Ghz by Brillouin spectroscopy and near-field scanning probe acoustic microscopy.

**B306** Advances in Acoustic Microscopy Volume 1 382pp

Volume 2 of this multivolume work continues to plot the remarkable strides being made worldwide in application and techniques of high resolution acoustic imaging. Like its predecessor, Volume 2 examines testing of acoustic microscopes for imaging both biological and inert materials to exceptionally resolutions, exploiting the latest proven techniques both in industry and development.

Contents; Characterisation of electronic components by acoustic microscopy; Principles and applications of high-frequency medical imaging; Interaction of acoustic waves with solid surfaces; Scanning acoustic microscopy with phase contrast; Ultrasonic focusing with time reversal mirrors; Each chapter contains references & index.

**B318** Advances in Acoustic Microscopy Vol 2 288pp, 275 illustrations

**Light Spectroscopy by D A Harris**

Spectrometry and spectrofluorimetry are core techniques used throughout the life sciences and medicine. These techniques evolve continuously and this book provides information on the latest advances in spectroscopic methods. *Light Spectroscopy* begins by describing the basic principles and then provides practical guidance on the wide range of current techniques for their application and analysis of the results obtained.

Contents:

Principles; What to look for in spectrophotometer design; Geometry, light paths and beam splitting; Measuring absorbance and fluorescence; Measuring an absorption spectrum and a fluorescence spectrum; Measuring at a fixed wavelength; Probing the environment; Glossary; Suppliers; Further reading;

Suitable for advanced undergrads. in bio sciences, postgrads, researchers & hospital staff. 192pp

**B282** Light Spectroscopy

**Modern Microscopies - Techniques and Applications Edited by P J Duke & A G Michette**

Modern Microscopies introduces a number of new imaging techniques to supplement and expand the information that can be obtained from traditional electron microscopy. Particular emphasis is given to an extended discussion of X-ray microscopy, including the electron synchrotron storage ring, the high power laser plasma and new methods of aberration-free X-ray.

Cryo-electron microscopy, X-ray holography, scanning tunnelling microscopy, NMR imaging, and many other contemporary techniques are also detailed.

**Contents:** Electron microscopy of biological macromolecules; Frozen hydrated methods and computer imaging; Radiation sources for X-ray microscopy; Amplitude and phase contrast in X-ray microscopy; Scanning X-ray microscopy; X-ray microradiography and shadow projection X-ray microscopy; Progress and prospects in soft X-ray holographic microscopy; Prospects for NMR microscopy; NMR microscopy of plants; Confocal optical microscopy; Acoustic microscopy; Scanning tunnelling microscopy in biology; Resolution: A biological perspective; Index.

**B321** Modern Microscopies 266pp

**Raman Microscopy Developments & Applications edited by G Turrell & J Corset**

One of the first books devoted entirely to the subject of Raman microscopy, this volume addresses the issues of interest to researchers in this area of science. The book is written by several world recognised experts who summarise the Raman effect before discussing the hardware and software involved in today's instruments. All important applications including those in materials and earth science are covered in depth.

- Includes extensive description of the instrumentation, the Raman microspectrograph, the treatment of data and micro Raman imaging
- Summarises the Raman effect
- Discusses new uses for this technology

**B330** Raman Microscopy