

**Modern PhotoMICROgraphy by B Bracegirdle and S Bradbury**

An up-to-date introduction to the theory and practise of producing high quality photomicrographs. The book offers practical guidance on obtaining a clear image and recording this accurately with details on:

- current imaging methods
- choice of films and film speed
- recording the image in monochrome and colour
- calibration of equipment
- preparing results for publication

Essential reading for all practising microscopists who wish to record images at magnifications above 50X. The companion volume to Scientific PhotoMACROgraphy, the two books should be read in conjunction to provide a complete overview of methods for photographing magnified images.

**B297** Modern PhotoMICROgraphy

**Electronic Light Microscopy edited by D M Shotton**

An excellent laboratory reference work offering practical guidelines for properly applying digital image processing techniques to electronic light microscope images.

**It includes:**

- Video enhanced contrast
- Digital intensified fluorescence
- Confocal scanning light microscopy

**B239** Electronic light microscopy 366pp

**Surface Preparation and Microscopy of Materials edited by B Bousfield**

A book dedicated to the systematic preparation of a vast range of material surfaces looking in detail at the problem of microstructural traceability. Designed to be of practical use the book has been written in two parts. The first defines the essential procedures involved in surface preparation, the second illustrates the best use of microscopy by discussing in depth the different features that contribute to informative analysis.

**B243** Surface preparation & microscopy of materials 356pp Hardback

**The Role of Microscopy in Semiconductor Failure Analysis  
by B P Richards and P K Footner**

A valuable practical guide containing many illustrated case histories and micrographs of many failure mechanisms.

**B251** The role of microscopy in semiconductor failure mechanisms 108pp

**Ore Microscopy and Ore Petrography by J R Craig and D Vaughn**

Thoroughly researched and well illustrated, this edition has been updated to reflect the latest in theoretical and technical advances and new data on the most important ore types

**Also covered are:**

- Basic sample preparation and examination techniques
- Qualitative properties used for mineral identification
- Textures and numerous examples of the major mineral associations

**B241** Ore microscopy and ore petrography 261pp hardback

**Microscopy of Textile Fibres by P H Greaves and B P Saville**

An up-to-date manual with recent advances in microscopy and fibre technology. It includes fibre identification and measurement, polarised light microscopy and special preparation techniques for light microscopy, TEM and SEM. Readership is textile technologists, fibre scientists, microscopists, forensic scientists and materials analysts.

**B264** Microscopy of textile fibres 112pp

## Soil Microscopy and Micromorphology by E A Fitzpatrick

The first book of its kind with comprehensive coverage of the subject. Soil thin sections, the use of TEM, SEM, X-ray microprobes and microbiology are described to gain insight into the behaviour of soils.

Contains analysis of soil fabric, structure and porosity, mineralogy and other weathering microenvironments in soil, results of soil/organism interactions and structure deteriorations.

**B242** Soil microscopy and micromorphology 320pp

## Atlas of Microscopy Techniques by U Aebi and A Engel

This book emphasises the various types of microscopy data in use today. It contains clear and concise chapters on the various light microscopies as well as the emerging scanning probe microscopies. An enclosed CD-ROM presents many 3-D reconstructions that, in conjunction with the book, present a comprehensive view of the field today.

No Longer Available

**B299** Atlas of Microscopy

## Resin Microscopy and On-Section Immunocytochemistry by G R Newman J A Hobot

Fixation, resin embedding and immunocytochemistry, the subject of innumerable publications are organised into a comprehensive and coherent scheme showing how the various methodologies interrelate. The book includes detailed protocols which can be quickly selected and easily applied.

Commercially available resins and their uses are described and the book considers the advantages for cytochemistry and immunocytochemistry of matching tissue fixation to processing and resin embedding.

**B255** Resin microscopy & on-section immunocytochemistry hardback

## Food Microscopy by Olga Flint

This is a practical guide to examining the microstructure of food ingredients and food products using the light microscope. The emphasis is on rapid methods which have been tried, tested and modified by the author to ensure that they work.

### Contents:

Choice of equipment; Preparation of food for the stereomicroscope; Simple preparation techniques for the compound microscope; Use of the cryostat in food microscopy; Contrast techniques for food constituents; Fat in food; Food starches; Meat, fish and their products; Vegetable proteins; The Howard mould count of tomato products; Food gums; Food emulsions.

**B247** Food microscopy

## Biological Microtechnique by J. Sanderson

The first new practical guide to biological specimen preparation in twenty years. As a result of the recent resurgence of interest in light microscopy, particularly confocal techniques, this up-to-date book will benefit all those seeking to sustain specimen preparation to match increasingly demanding observation technology.

New and classical methods are described in an easy-to-read format and this book provides a firm grounding in methods of preparation for the light microscope.

### Contents Include:

- Fixation • Tissue processing • Microtomy • Other preparative methods • Staining and dyeing
- Finishing the preparation • Safety • Refractive indices

**B267** Biological Microtechnique

### **Embedding and Staining Soft Biological Specimens in Resin Media for Microscopy** A TAAB Publication

Our own publication explaining how to make the most appropriate choice of resin for particular applications in LM or EM when using plastic for embedding. Contains sections on specimen preparation and staining methods, problem solving, safe handling, recipes and references. An invaluable laboratory bench guide.

Colour plates 28pp

**B108** Embedding & Staining etc.

### **The Microwave Tool Book - A Practical Guide for Microscopists** Gary R Login & Ann M Dvorak

Addresses the most common issues voiced by many laboratory people on microwave methods - namely their frustration encountered in adapting the published protocols to their microwave oven. The Microwave Tool Book is a step-by-step guide that teaches how to calibrate and standardise all microwave ovens for many laboratory applications. It teaches how to make a variety of simple tools to help see hot and cold spots in the oven, measure warm up time and cycle time and monitor temperature easily and inexpensively.

There are copious illustrations, explanations and a Trouble Shooting Guide to accompany exercises which emphasise the key learning issues in each section.

**B295** The Microwave Tool Book

### **Microscopy, Immunohistochemistry and Antigen Retrieval Methods** For Light & Electron Microscopy by M A Hayat

This excellent book deals with the activities of chemical components of cells (histochemistry) and the functions of cell types in tissues and organs (immunohistochemistry). The book is really a laboratory manual focusing on antigen retrieval particularly in disease related antigens.

Contents: Antigens & Antibodies: Fixation & Embedding: Factors Affecting Antigen Retrieval: Problems in Antigen Retrieval: Antigen Retrieval: Antigen Retrieval on Resin Sections: General Methods for Antigen Retrieval: Other Applications of Microwave Heating: Cell Proliferating Antigens: Estrogens: HER-2 (c-erbB-2) Oncoprotein: References.

**BXXX** Microscopy, Immunohistochemistry & Antigen Retrieval Methods 360pp Hardback (Sept 2002)

### **Video Microscopy The Fundamentals - Second Edition** by Shinya Inoué & Kenneth R Spring

Video microscopy has improved in performance in recent years, particularly with the information processing power of computers helping to overcome the poor contrast and shallow depth of field previously associated with microscopy at high resolution and magnification.

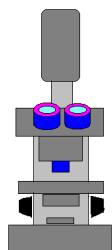
The second edition still retains the fundamentals with extensive reviews of optical microscopy, video detectors and display devices of the original work, but has been expanded to reflect technological advances in electronic imaging, processing, recording and analysis. The review of microscope imaging has been vastly expanded to include point spread functions, contrast transfer functions, modes of contrast generation and scanning microscopy.

A new section on the electronic detection of light, covering vidicon tube cameras, has been added. Three completely new chapters deal with solid state detectors, both video-rate and slow scan; image intensification; and colour video signal and colour video cameras. Yet another new chapter treats practical aspects of the design and use of video microscope systems.

The volume has 512 illustrations (including 126 half-tones) and features a glossary of terms, detailed tables of specifications and a list of manufacturers.

**Contents:** Why video? Microscope image formation; Practical aspects of microscopy; Physiological characteristics of the eye; Video signal fundamentals; Detection of light and vidicon tube cameras- monochrome; Solid state detectors and cameras; Low-light level cameras; Colour video signal and colour cameras; Video monitors; Projectors and printers; Video recorders; Digital image processing; System integration; References; Glossary; List of manufactures; Index.

**B303** Video Microscopy 713pp + index



## Video Microscopy edited by Greenfield Sluder and David E Wolf Methods in Cell Biology Volume 56

This publication instructs researchers in the principles and practice of video microscopy for a whole variety of research applications. Because video microscopy involves an integrated package of sophisticated instruments that must be co-ordinately optimised, the knowledgeable use of these instruments is essential to the acquisition and display of specimen information. Articles by leaders in the design and application of video methods for biological microscopy cover the full range of commonly used video technologies. The basics of each component or technology are presented in a non technical fashion that allows the the reader to avoid common mistakes that lead to artefacts.

### Key features:

- Commonly used video techniques in biological research
- Non technical presentation of principles
- Emphasis on the practical aspects of instrument use
- Avoiding pitfalls in instrument use that can lead to artefacts
- Tailored to the established researcher with little or no knowledge of video microscopy in biology
- Extensively illustrated with photographs, diagrams and drawings

**B325** Video Microscopy - Methods in Cell Biology Vol 56

## Fluorescence Microscopy & Fluorescent Probes edited by Jan Slavik

This unique work provides the most thorough, up-to-date evaluation available of the theory, instrumentation and practical application of fluorescence microscopy and fluorescent probes. 127 natural scientists, physicians, technicians and microscope manufacturers contribute to the discussion of this non-destructive analytical tool. Special emphasis is given to new techniques in confocal fluorescence microscopy, lifetime imaging and computerised digital processing of fluorescent microscopic images.

### Contents;

- Fluorescence Microscopy and Fluorescent Probes (9 chapters).
- Ion-Sensitive Fluorescence Probes (9 chapters).
- Membrane Potential-Sensitive Fluorescent Probes (5 chapters).
- Fluorescent Probes for Nucleic Acids (6 chapters).
- Fluorescent Labels, Fluorescent and Fluorogenic Substrates (10 chapters).
- Digital Image Analysis (7 chapters).
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**B311** Fluorescence Microscopy etc

