

Microscopy Related Techniques

Vacuum Methods in Electron Microscopy by Wilbur C Bigelow
series editor Audrey M Glauert

Vacuum Methods in Electron Microscopy provides full details and advice for scientists in the understanding and practical operation of the vacuum systems found in electron microscope laboratories. Detailed and fully illustrated descriptions are given of:

- basic vacuum processes
- functioning of pumps and vacuum gauges
- correct operating procedures for different types of vacuum systems
- procedures for detecting and repairing leaks in vacuum systems

Essential reading for all scientists, technicians and engineers who are responsible for the operation of vacuum systems on electron microscopes and other scientific equipment

B326 Vacuum methods in electron microscopy paperback 512pp

B327 hardback

***In Situ* Hybridization by A R Leitch, T Schwarzacher, D Jackson & I J Leitch**

This powerful link between cellular and molecular biology is described in this practical guide which covers the technique from basic principles to detailed methodology and applications.

Contents:

Nucleic acid sequences located *in situ*; The material; Nucleic acid probes, labels and labelling methods; Denaturation, hybridization and washing; Detection of the *in situ* hybridization sites; Imaging systems and the analysis of the signal; The *in situ* hybridization schedule (including troubleshooting); Future of *in situ* hybridization. Appendix; Suppliers of reagents and kits; Buffers. 128pp

B265 *In situ* Hybridization

Enzyme Histochemistry - A Laboratory Manual of Current Methods by C J F van Noorden and W M Frederiks

This practical Laboratory handbook contains the most important enzyme histochemical techniques currently available for light microscopy. The methods included were chosen because of their reliability and specificity, and all are clearly detailed in easy-to-follow protocols. The book will be of interest to all researchers in cell biology, pathology, biochemistry and cell physiology.

B256 RMS Microscopy Handbook Series, No.26, 122 pp

Antibody Technology by J E Liddell & I Weeks

Describes what antibodies are, how polyclonal, monoclonal, chimeric and humanised antibodies are produced and how they can be used to answer a variety of questions.

For the newcomer to the field there is information on conventional methods of antibody production and widely used immunoassays and detection methods. For the experienced there are substantial sections on the new generation of engineered antibodies and the latest developments in immunoassay techniques and applications, ranging from therapy to ecology.

After reading the book the reader will be up-to-date on the current status of antibody technology and able to make informed decisions on the best choice of antibody with regard to cost, time and final application.

B260 Antibody Technology 160pp

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.

B405 Microscopy, Immunohistochemistry & Antigen Retrieval Methods 360pp Hardback (Sept 2002)

Animal Cell Culture by S J Morgan & D C Darling

A readable and comprehensive introduction to current techniques and the equipment needed to set up a tissue culture facility. The book gives a background to each method as well as applications in modern cell and molecular biology.

Contents:

Aseptic techniques; Media preparation; Culturing continuous cell lines; Primary culture; Cell cloning and fusion; Cytotoxicity assays; Separation and immortalisation of lymphocytes; Animal cell transfection; Suppliers.

B259 Animal Cell Culture

Radioisotopes by D. Billington, G G Jayson, & P J Maltby

An introductory volume for those wishing to understand and apply radioisotopes in their research.

Contents include:

An introduction to radioactivity • Production of radioisotopes • Measurement of radioactivity • Radioimmunoassay • Tracer techniques • DNA sequencing • *In situ* hybridization • Radiopharmacology • Organ imaging

B248 Radioisotopes

RNA Isolation and Analysis by P Jones, J Qiu, & D Rickwood

A comprehensive, easy-to-read account of all the key techniques in the area of RNA isolation and analysis. An ideal book for those new to the subject and valuable for experienced researchers.

Contents:

RNA structure and function; Methods for isolating RNA; Characterisation of RNA size; Functional analysis of RNA; Isolation and analysis of ribonucleoproteins; Suppliers; Glossary. 208pp

B286 RNA isolation and analysis paperback

Lipid Histochemistry by O Bayliss High

A practical handbook which describes reliable and straightforward methods which are within the scope of the general microscopist and selective for individual lipids.

Contents:

Structural, chemical and physical properties of lipids; The physiological roles of lipids; Applications of lipid histochemistry to pathology; Preparation of tissues for lipid histochemistry; Control sections; Limitations and artefacts; Microscopic techniques for tissue lipids; Recent advances in lipid histochemistry; List of methods.

B154 Lipid histochemistry