
This is a volume from a more extensive series directed at principles and techniques of electron microscopy as applied to biological systems. The stated purpose is to serve as a guide and a survey that will present contemporary knowledge as well as work in progress that will be of benefit in the future.

There is a strong emphasis on the basic principles of new techniques as well as a heavy emphasis on mathematical analyses of these techniques. The section on the analysis of biologic structure by reconstruction using X-ray diffraction techniques is excellent. There are more practically oriented sections dealing with cryoultramicrotomy and the electron autoradiography of free specimens. Much of the book is more theoretical than practical and, therefore, may not prove as useful to electron microscopy technicians as the previous volumes. However, the contained material is well presented and the applications are clear. The bibliographies accompanying each chapter are comprehensive. Scientists working in the newer electron microscopy techniques should find this book full of valuable information.

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Seldom does one find a book written on an extensive subject that is short, accurate, reasonably complete, and easy to read. This combination is rare, even for introductory texts. J.H. Green has taken this combination, added to it morsels of relevant clinical information, and developed a text that has to be rated as excellent for medical and paramedical students who have yet to take a full course in human physiology. In addition, this book is an excellent short review for those who have taken a full course and wish to review the pertinent points.

In contrast to most books on the subject, the nervous system is discussed here in the last four chapters. Through this maneuver, Green gives the reader the opportunity to appreciate neural regulation on a multisystem level, as opposed to an early discussion of the nervous system where one loses track of all nervous system functions except those that are specific to each organ system. In this book, those organ-system-specific functions are reinforced in a setting of multisystem control. This approach is one that should be taken by more authors.

When one considers the many introductory books on various subjects that can justifiably be called "throw-aways," J.H. Green has created what could almost be called a work of art.

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Dr. Vaughan has presented a very complete and succinct analysis of bone from a morphologic and physiologic standpoint. The first edition of the book was well
Electron microscopy is a technology for examining the extremely fine detail or ultrastructure of biological specimens for use in research and medical situations. The Transmission Electron Microscope. The Scanning Electron Microscope.

Outline of Methods. Applications. Request PDF | On Jan 1, 2002, J.Robin Harris and others published Principles and techniques of electron microscopy biological applications | Find, read and cite all the research you need on ResearchGate. This expectation was borne out in practice by the aggregation behavior, as studied by transmission electron microscopy (TEM) with negatively stained samples and freeze-fracture samples of aqueous vesicle dispersions. The structure of the surfactant headgroup has been varied by changes in pH of the vesicle dispersions. Scanning electron microscopy (SEM) is an important electron microscopy technique that is capable of achieving a detailed visual image of a particle with high-quality and spatial resolution. SEM is a... The scanning electron microscope: Principles and applications in biology and medicine. Advances in biological and medical physics, 12, 85–137. Google Scholar. 11. Sant'Anna, C., Campanati, L., Gadelha, C., Lourenco, D., Labati-Terra, L., Bittencourt-Silvestre, J., Benchimol, M., Cunha-e-Silva, N. L., & De Souza, W. (2005). Improvement on the visualization of cytoskeletal structures of protozoan parasites using high-resolution field emission scanning electron microscopy (FESEM). Histochemistry and Cell Biology, 124(1), 87–95. CrossRef Google Scholar. 12.