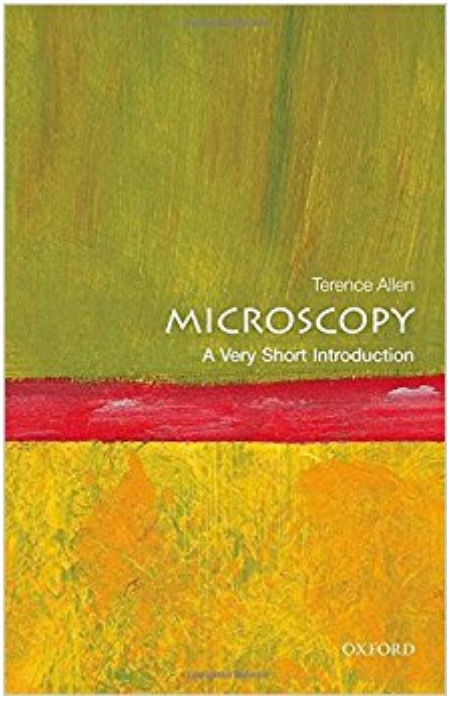
Microscopy: A Very Short Introduction (Very Short Introductions)



Synopsis

Microscopy is a dynamic area of science, incorporating both basic classroom microscopes and sophisticated research style instruments that can be driven by light, electrons, or X-rays. The rate of advance in the area over the last 50 years has led to a number of technological advances. In this Very Short Introduction Terence Allen, an established expert on microscope techniques, describes the scientific principles behind the main forms of microscopy, and the exciting new developments in the field. Focusing on the main underlying principles, and introducing the power of what is achievable today using microscopes, Allen demonstrates how microscopy impinges on almost every aspect of our daily lives; from medical diagnosis to quality control in manufacture. Beginning with a brief history of the early stages of microscopy development, Allen then concludes with a comprehensive account of the diverse spectrum of microscopy available today. ABOUT THE SERIES:The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Book Information

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Customer Reviews

Terence Allen has taught many microscopy courses worldwide, as well as regularly presenting his work at international conferences on both microscopy and cell biology. Since his retirement he has written articles at a more popular level and was co-author of The Cell: A Very Short Introduction

(OUP, 2011).

Excellent survey of modern microscopy. I've often wondered how all the remarkable high resolution and high magnification images are made and what their bewildering acronyms (TEM, STM, AFM, etc.) and types (confocal, bright field, dark field, etc.) mean.The book consists of two main sections, light and electron microscopy, which each give a short history of the various subtypes and an explanation of how they work. The concepts of magnification, resolution and so on are explained but without any need for serious scientific background. It would however presumably help if you did know the difference between light and electrons.As the author says in the "Further Reading" section books on microscopy are usually large text books. These are more that I would like to delve into microscopy and so this book fit my interest in getting a basic understanding of the various types of microscopy. This kind of quality science writing is a delight to read.You are unlikely to become a qualified microscopist reading only this little book (136 pages) but you should have a better understanding and appreciation for all those great images of the microscopic world, biological, electronic and molecular, that are so common in today's media.I would think that this would also make for an excellent supplemental reading for beginning students of any field that deals with microscopy and those are manifold these days..

Very thorough, and quite interesting. In a very short book(let) it surveys a comprehensive history, overview, and state of the art. I wish there were three times as many pages as well written and perspicuous. Like the rest of the VSI series, however, it leaves readers unsure of where to turn for more of the same.

These short introductions are great. A lot of information in a little book, which is perfect for people with a very busy schedule.

Very informative. Good book.

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