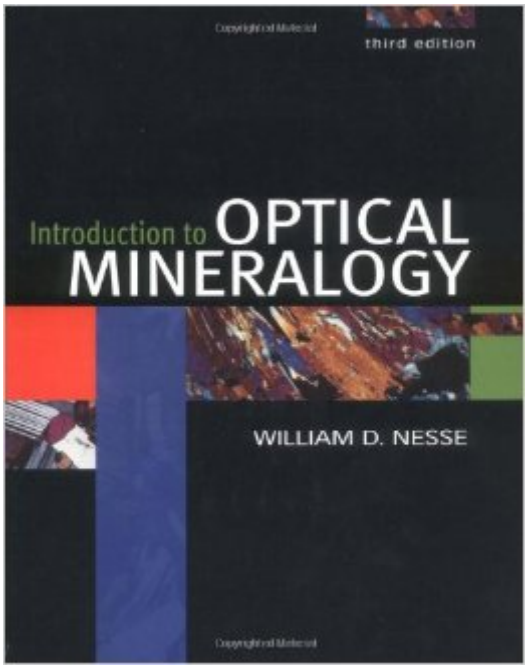
Introduction To Optical Mineralogy



Synopsis

The third edition of Introduction to Optical Mineralogy provides comprehensive coverage of the optical properties of minerals. It describes in detail more than 125 common rock-forming minerals and a selection of common ore minerals. Revised chapters on optical theory discuss the petrographic microscope, the nature and properties of light, the behavior of light in isotropic and anisotropic materials, and uniaxial and biaxial anisotropic optics. Ideal for advanced undergraduate and graduate courses in optical mineralogy, this accessible text is also an essential resource for petrology/petrography courses. Features of the Third Edition Â Includes a new section on reflected light optics Â Reorganizes material so that silicates-which comprise over 95% of the earth's crust-are discussed first in order to reflect their abundance and petrologic significance Â Contains numerous photomicrographs and revised illustrations throughout Â Provides step-by-step procedures for using the petrographic microscope and a flow chart detailing the process of identifying unknown minerals Also Available: Companion CD A Textural Atlas of Minerals in Thin Section by Daniel Schulze contains color images of 65 minerals in thin selection, pictures of common alteration products-all indexed by mineral structure and composition-and more than 200 illustrations of important optical properties used in thin selection identification.

Book Information

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Average Customer Review: 4.5 out of 5 starsÂ Â See all reviewsÂ (11 customer reviews)
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Customer Reviews

Remarkably lucid yet accurate presentation of a subject often found difficult by students. The first third of the text deals with the properties of light, the use and care of the petrographic microscope,

and the optical properties of minerals and how to use these to identify mineral grains in thin sections. Much of the text contains detailed descriptions of the commoner rock-forming minerals from the standpoint of the petrographer. Descriptive diagrams and photographs, and capitalized section headings, separated paragraphs, and all typeface (font) easy to read. Paper is quality glossy and easy to use. Appendices include Identification Tables based upon various optical properties, tables which have proved their use to students taking the course. Also includes the standard fold-up Interference Color Chart, on quality glossy paper, and on its reverse a table of birefringence versus relief (difference in refractive index). The author retains consideration for students, including photos of such non-minerals as may confuse the tyro, such as textile fibers, bubbles, and grinding compound, all of which get into thin sections (petrographic slides). Excellently laid out and organized, it also contains a good Index. This text was written for college students taking petrography and optical mineralogy, and has been kept, rather than sold, even by some students who never expect to use a petrographic microscope again. College instructors take notice, as for a junior to senior level petrography course this text probably rates a 9 or a 10. [DMM]

As a student of Geology, I have used Nesse as my bible for all petrology courses. It is complete, comprehensive and easy to use. A must for all geologists, student or not.

This book provided many great examples and diagrams which made learning optical mineralogy much more satisfying. Anything that was not thoroughly explained in lecture could be accurately and extensively described in this text.The book wasn’t without its mistakes, but then again, which textbooks are totally free from typos and misprints?

A well written and illustrated textbook on the subject matter. It is exactly what it wants to be: An introduction. And it is a good one. Wide and detailed enough to give the beginner a good handle of "what optical mineralogy is all about" without going into too much detail of purely academic issues. Good balance of theory and examples.The illustrations are plenty, rich and very instructive. However, minor improvements may be possible by replacing some of the black&white illustrations with updated colour graphics, in particular the microphotographs.

It’s just a book I needed for my major, so I don’t know how much this review is really going to help people. Nesse sometimes explains things well, and other times, the book is very convoluted.Fast shipping though, so that was awesome.

This is a definate must have for all you Geologists out there. No matter what year of school you are in or even if you are no longer in school, but need a bit of reference now and again, this is the book to have. Nesse does an excellent job of clearly explaining and illustrating the optical properties of minerals. He includes all of the essential bits of information that any geologist will need. I highly recommend this book as a great reference tool that any geologist or aspiring geologist should add to their collection of references.