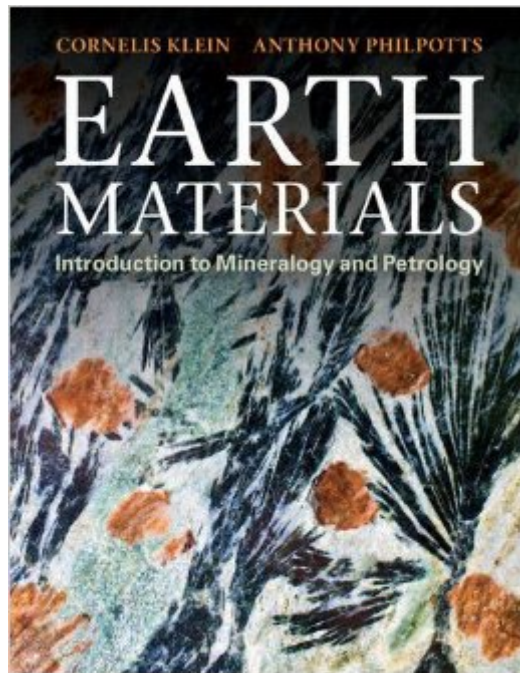


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# Earth Materials: Introduction To Mineralogy And Petrology



## Synopsis

The fundamental concepts of mineralogy and petrology are explained in this highly illustrated, full-color textbook to create a concise overview for students studying Earth materials. The relationship between minerals and rocks and how they relate to the broader Earth, materials and environmental sciences is interwoven throughout. Beautiful photos of specimens and Crystal-Maker's 3-D illustrations allow students to easily visualize minerals, rocks and crystal structures. Review questions at the end of chapters allow students to check their understanding. The importance of Earth materials to human cultural development and the hazards they pose to humans are discussed in later chapters. This ambitious, wide-ranging book is written by two world-renowned textbook authors each with over 40 years of teaching experience, who bring that experience to clearly convey the important topics.

## Book Information

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## Customer Reviews

If you want to learn about rocks and minerals, this is the book for you. It is designed as a college textbook, but it is the best book available on the subject for the general reader: beautifully illustrated, concisely written, and comprehensive. It includes a good overview of earth science (chapters 1, 2, 3), as well as excellent chapters on economic minerals, earth materials, and the impacts of earth materials on human health (chapters 15, 16, 17). I don't want to imply that some of the chapters will hold the interest of the general reader, but it is certainly worth glancing at the chapters on the identification and formation of igneous, sedimentary, and metamorphic rocks in the middle of the book. The pictures and diagrams are simply superb: you will not find better examples of rocks and

minerals elsewhere, even in rock and mineral guidebooks. I recommend the paperback edition--it is sturdy and priced right. And check out the web site, which has some neat features and supporting information.

I've been looking for a book like this for a long time. I collect rocks and minerals and am interested in geology, but most the textbooks are too technical and too expensive. I wanted to know how minerals form, what they make up is, how they differ from rocks, etc. This book explains that, and is written well. The photos are gorgeous! I'm not a student, but I'm very interested in what the earth is made of. The title of this book grabbed me and has held me interested to read every page. If you are interested in rocks and minerals, and geological processes, this book is for you.

Earth Materials: An Introduction to Mineralogy and Petrology by C. Klein and A.R. Philpotts, clearly, yet rigorously, presents the basic concepts of mineralogy and petrology of the materials that make up Earth. For the student, it is a concise and well-illustrated presentation of the fundamentals of mineralogy and the fundamentals of igneous, metamorphic and sedimentary petrology. For the working geologist, it is a valuable reference. I have used the book to help classify rocks, the fundamentals of which I long ago forgot. The book is well written and superbly illustrated. All minerals show a typical appearance as well as crystal structure models. Rocks are illustrated macroscopically (field occurrence) as well as microscopically, with most of the illustrations taken by the author. Historically, courses on earth materials were designed for students whose goals were an awareness of and identification of earth surface materials that might be encountered during engineering and environmental projects. Three to five semesters of traditional course work was distilled to one semester. Thus most textbooks for earth materials were written giving only a basic description of rocks and minerals and an introduction to basic identification techniques. Hence, much ancillary material (genetic paradigms, basic equations, etc) was omitted and the scientist needing to know the how and why required additional references. This book by Klein and Philpotts is SO MUCH MORE than the standard earth materials texts that I actually use it as an important reference. It reviews plate tectonic theory for the students and then presents a thorough description of mineral properties and various techniques for identification. BUT ALSO it includes the crystal chemistry and physics necessary to understanding how and why minerals form and their associations not only with one another but also within the broader plate tectonic framework of the earth. The book has a description of the theory and formation of igneous, sedimentary and metamorphic rocks and places all within a plate-tectonic framework. So thorough is this book that it

could be used, with few additional references, as a text for most traditional mineralogy, petrology and sedimentation courses. I think highly of this book and recommend it without reservation. For the student it has the material for thorough understanding. For the instructor, it has more than enough material for any audience or class structure and apparently the students like it. For the working professional it is a valuable reference that refreshes material learned long ago and fills in the material that may have been omitted from one's formal educational process. It is well worth the few dollars charged (however, in all honesty, I must admit that I did not buy the book; it was given to me to review)

I studied geology many years ago. Trying to revise things especially about minerals, I was about to buy a mineralogy book....thought of Dana's book but this was a better choice...its not just mineralogy, somewhat generic... and all the images are in color (an extremely rare thing for geology books)....A good book for someone who wants to revise many things by buying just one book! let me put it this way ...this book is mineralogy + igneous and metamorphic petrology with thousands (may be) of images in color.. worth its price

This is an excellent book but it does require some background in chemistry and it was written to be used as a college text book. It is not a casual read type of book. If you are really into mineralogy and petrology it is a good book to have on hand and spend considerable time studying it. It is a different approach to Mineralogy and a welcome one.

I'm a professional chemist interested in geology as a hobby and for rock-hounding purposes. I've read a number of geology textbooks from general geology (undergrad freshman level) to volcanism (junior/senior). While I found the book well illustrated with many pictures, I thought the big picture, overarching story of the textbook was lacking. It felt like reviewing a paper that had some great nuggets (no pun intended) of research/information, but needed a lot of work on organization and "story-telling", if you will. I understand this is not a novel, but in my mind, all the great textbooks are able to convey information in a way that links the major principles in a discipline together, piques the interest of the reader and explains key concepts. The chapters of this text felt haphazardly ordered and in many cases certain information was repeated quite frequently. Frequently in the "mistake" sense, not in the "emphasis" sense. Overall, they tried to blend the concepts of mineralogy and petrology, but to me it came across as a mess. Many of the reviews remark on it being a suitable reference and I agree it is suitable in that capacity. However, as a textbook, I feel it lacks in structure

and organization and I would consider other options for that purpose.

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