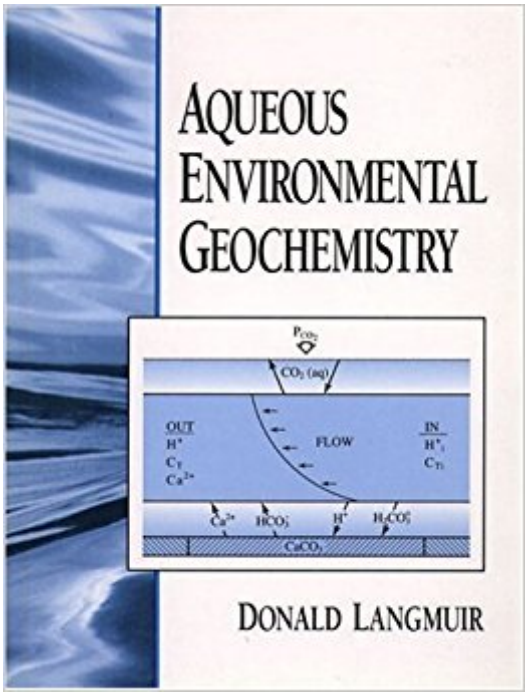
Aqueous Environmental Geochemistry



Synopsis

Langmuir provides a thorough presentation of natural chemical concentrations, systems and processes to help readers (1) understand controls on the chemical quality of surface and subsurface waters, and (2) distinguish between the natural and the anthropogenic. Unlike most authors, whose civil/sanitary engineering backgrounds promote a more aquatic chemistry perspective, LangmuirÃ•s geology/geochemistry experience focuses coverage on the chemical interactions between water and geological materials. The book provides valuable training in using in the geochemical computer code MINTEQA2 as an integral problem-solving tool.

Book Information

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Customer Reviews

Provides a thorough presentation of controls on the chemical quality of surface and subsurface waters, both pristine and polluted. Emphasis is placed on inorganic processes and on the chemistry of soil and groundwaters. Unlike most authors, whose civil/sanitary engineering backgrounds promote a more aquatic chemistry and surface water approach Langmuir’s geology/geochemistry experience focuses coverage on the chemical interactions between water and geological materials. The text provides valuable training in using the geochemical computer code MINTEQA2 as integral problem-solving tool.

This book offers thorough, up-to-date coverage of controls on the chemical quality of surface and subsurface waters, both pristine and polluted, with an emphasis on problem-solving and practical applications. The text is appropriate for courses in aqueous geochemistry or aquatic chemistry.

Desirable prerequisites are introductory courses or the equivalent in thermodynamics and solution chemistry, and in physical geology including mineralogy.

One of the best geochemistry books out there, hands down. The content, logical progression and careful explanation make any covered topic approachable. The plentiful graphs and charts do an excellent job at demonstrating various points. As a Geochemist employed at a research lab for Oil & Gas I use this book frequently as a reference, my co-workers are always astonished how applicable it is to the world of unconventional hydrocarbon exploration even though it isn't intended to be. An excellent companion book is "Soil and Water Chemistry" by Michael E. Essington.

In hydrogeochemistry, it's fundamental to comprehension of processes which can occur in the environment. We can qualify it as the bible of geochemistry. It gathers informations that give us the true confidence to we understand as all biological, chemical, and physical processes are in equilibrius among itself and as we interact with these environmental elements modifying them.

Fantastic book. This is my primary reference.

By the time I purchased this book I was absolutely new to the field of Environmental geochemistry and I was looking for book that would include all essential knowledge needed for succes in the course. The book comprises all crucial topics: some thermodynamic basics, aqueous chemistry, redox chemistry, isotopes. I especially appreciate solved problems ... as a guideline for study questions at the end of the chapter. However, to use and comprehend this book, you should have some backgroud of physical chemistry and thermodynamics, 'cause the introductory chapter on thermodynamics requires this kind of konwledge. The book is written in scientific style with pletny of pictures and diagrams - that are many times esseantial in order to understand the text. One more information - in thermodymaic calculations, author uses calories - just a reminder in case you are used to joules. Even though this is not the book for absolute beginners, my overall impression is very good and I higly recommend it.

This book is an excellent resource for anyone involved in environmental geochemistry, either academically or professionally. However, if you can find a different edition, DON'T buy this one. There appear to have been printing issues, and many pages are very hard to read. It resembles a poor-quality photocopy in places. The information is excellent, but given the price, I expect

publishing companies to take more care.

This was one of the better texts that I used for a graduate course in chemical hydrogeology. More quantitative than most of the other books avialable. I found it somewhat useful. There are plenty of problems at the end of the chapters and the text covers more topics than Drever or Kehew. Langmuir covers thermochemical principles, kinetics, complexes, acid-base reactions, carbonate chemistry, silicate weathering, adsorption-desorption, redox reactions and computer models. This is a worthwhile textbook.

I used this book for a graduate course in Envvironmental Engineering. I found the material comprehensive and well presented. However, some of the example problems have errors that require considerable time to shake out when learning the material. This book really needs an errata page and solicitation of errors.

Textprinted is light ink and seems to be stretched to one side of the page. This is a difficult subject to put in a book, but about as good of job as Drevers version called The Geochemistry of Natural Waters.