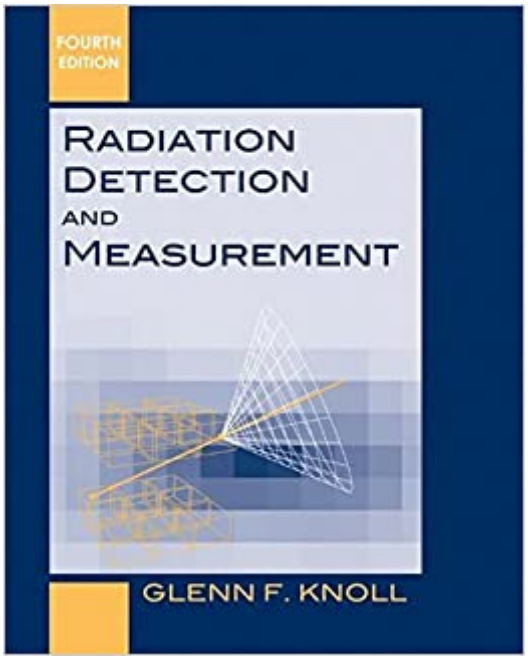
Radiation Detection And Measurement



Synopsis

This is the resource that engineers turn to in the study of radiation detection. The fourth edition takes into account the technical developments that continue to enhance the instruments and techniques available for the detection and spectroscopy of ionizing radiation. New coverage is presented on ROC curves, micropattern gas detectors, new sensors for scintillation light, and the excess noise factor. Revised discussions are also included on TLDs and cryogenic spectrometers, radiation backgrounds, and the VME standard. Engineers will gain a strong understanding of the field with this updated book.

Book Information

Hardcover: 860 pages

Publisher: Wiley; 4 edition (August 16, 2010)

Language: English

ISBN-10: 0470131489

ISBN-13: 978-0470131480

Product Dimensions: 8.2 x 1.2 x 10 inches

Shipping Weight: 3.3 pounds (View shipping rates and policies)

Average Customer Review: 4.5 out of 5 stars 37 customer reviews

Best Sellers Rank: #93,438 in Books (See Top 100 in Books) #3 inÃ Â Books > Science & Math > Physics > Nuclear Physics > Atomic & Nuclear Physics #7 inÃ Â Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics > Sensors #10 inÃ Â Books > Science & Math > Experiments, Instruments & Measurement > Scientific Instruments

Customer Reviews

Solutions Manual available. -- The publisher, John Wiley & Sons --This text refers to an out of print or unavailable edition of this title.

A new edition of the most comprehensive text/reference available on the methods and instrumentation used in the detection of ionizing radiation. Updated to reflect advances since the first edition came out in 1979. Retains the general organization of the first edition--all topics of importance are covered in sufficient detail to lead the reader from basic principles to examples of modern applications. Covers modern engineering practice; provides useful design information; and contains an up-to-date and thorough review of the literature. --This text refers to an out of print or unavailable edition of this title.

When I told my dad I was going to grad school for nuclear engineering, he gifted me his first edition copy of Knoll from the 70s/80s. I had to order the 4th edition due to several updates, and they both sit happily next to each other on my shelf.As other reviewers said, this book is indispensable. I spend more time with it than I do with my boyfriend. If you're in physics, health physics, or nuclear engineering and contemplating renting this or borrowing from a friend, strongly consider just buying your own copy, you'll come back to it for reference time and time again.

This is called the radiation detection bible among my lab group. It covers all the main points of radiation detection at a college level. A great reference for anything an undergraduate in nuclear physics or nuclear engineering needs to know. It is written at a level simple enough for any science fan to understand but with a depth that meets the standards for professionals. Each chapter includes citations for those that want to find the information in more detail from its source. Great book, I would recommend it to anyone interested in radiation detection!

Not the most in-depth textbook for advanced, modern topics in radiation detection, but this book exhaustively covers everything that the average nuclear engineer needs to know about radiation detection. The book is also written in a way which is rather easy to understand and highlights differences between different systems very well.

This is a great book. It is simple enough for the layman or hobbyist yet it is packed with concise information. It is helpful for lifting the fog of SI units and classical units that cloud the understanding of nuclear physics. I have not finished the book. I read and re-read the first three chapters, each time gaining new information. This is not liberal arts this is real science. You just have to repeat and re-read. What I have read has made the price worthwhile. As I advance more with scintillators and gamma spectroscopy the remaining chapters look to be very helpful.

Excellent book for a first course in radiation detection/instrumentation, or for self study to gain a greater appreciation for the field in general. Some of the chapters are a bit dense to read, but the book also doubles as a reference manual for later use. You'll find a thorough list of references at the end of each chapter with specific citations made throughout the text. This makes it easy to drill-down into specific topics of interest as you're working toward application of a particular detection method.

I was hesitant to read this given it’s size, but this book is extremely well written. It manages to TEACH principles rather than just serve as a reference.

The book is thorough. Need to have a basic understanding of physics and radiation before diving into it, however, as they don’t spend a lot of time on the background information. I suggest ordering the solution manual as well...the questions at the ends of the chapters are deep and solutions are not readily available online.

My teacher said something about this being the best reference for detector stuff; he’s the radiation protection officer or whatever they call that at my school. Anyway, if you need it for a class, I’d advise just buying it - it’s got a lot of info that you almost definitely will find useful for later classes.

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