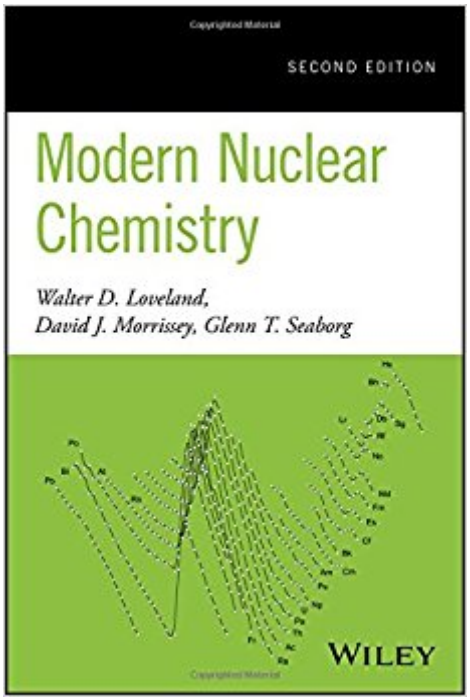
Ebook Directory
the best source of ebook

The book was found

Modern Nuclear Chemistry



PDF
Adobe
DOWNLOAD EBOOK

Synopsis

Written by established experts in the field, this book features in-depth discussions of proven scientific principles, current trends, and applications of nuclear chemistry to the sciences and engineering.Ã¢â ¬Â¢Ã Â Ã Â Ã Â Provides up-to-date coverage of the latest research and examines the theoretical and practical aspects of nuclear and radiochemistryÃ¢â ¬Â¢Ã Â Ã Â Ã Â Presents the basic physical principles of nuclear and radiochemistry in a succinct fashion, requiring no basic knowledge of quantum mechanicsÃ¢â ¬Â¢Ã Â Ã Â Ã Â Adds discussion of math tools and simulations to demonstrate various phenomena, new chapters on Nuclear Medicine, Nuclear Forensics and Particle Physics, and updates to all other chaptersÃ¢â ¬Â¢Ã Â Ã Â Ã Â Includes additional solved problems to help students and a solutions manual for all end of chapter problems for instructorsÃ¢â ¬Â¢Ã Â Ã Â Ã Â Reviews of 1st edition: "... an authoritative, comprehensive but succinct, state-of-the-art textbook ...." (The Chemical Educator) and "...an excellent resource for libraries and laboratories supporting programs requiring familiarity with nuclear processes ..." (CHOICE)

Book Information

Hardcover: 800 pages

Publisher: Wiley; 2 edition (April 10, 2017)

Language: English

ISBN-10: 0470906731

ISBN-13: 978-0470906736

Product Dimensions: 6.2 x 2 x 9.3 inches

Shipping Weight: 2.6 pounds (View shipping rates and policies)

Average Customer Review: 4.4 out of 5 stars 7 customer reviews

Best Sellers Rank: #1,099,313 in Books (See Top 100 in Books) #28 inÃ Â Books > Science & Math > Chemistry > Nuclear Chemistry #629 inÃ Â Books > Science & Math > Physics > Nuclear Physics #766 inÃ Â Books > Textbooks > Medicine & Health Sciences > Medicine > Clinical > Radiology & Nuclear Medicine

Customer Reviews

"...an excellent resource for libraries and laboratories supporting programs requiring familiarity with nuclear processes in biology, chemistry, engineering, and environmental studies..." (CHOICE, May 2006)"...an authoritative, comprehensive but succinct, state-of-the-art textbook for advanced students as well as a valuable reference source for practicing scientists and engineers." (The

Chemical Educator, March/April 2006)

"...an excellent resource for libraries and laboratories supporting programs requiring familiarity with nuclear processes in biology, chemistry, engineering, and environmental studies." CHOICE "...an authoritative, comprehensive but succinct, state-of-the-art textbook for advanced students as well as a valuable reference source for practicing scientists and engineers." The Chemical Educator Building on the legacy of its successful predecessor, this revision of Modern Nuclear Chemistry brings together a detailed and rigorous perspective on both the theoretical and practical aspects of this rapidly evolving field. This second edition provides additional solved problems to help students, as well as math tools and simulations to demonstrate various phenomena and new chapters on nuclear medicine, nuclear forensics, and particle physics. There are also updated chapters on nuclear structure; Ã Â -, Ã Â -, and Ã Â -decay; nuclear reactions; fission; astrophysics; and nuclear reactor chemistry. Requiring no previous knowledge of quantum mechanics and written at a level suitable for advanced undergraduate or graduate courses in science and engineering, this book is designed to be used as a textbook and a reference for practicing scientists and engineers. Extensive appendices facilitate quick reference, and the inclusion of advanced materials and references appeals to those who desire a deeper immersion in the subject.

The three authors of this book, one of which (Glenn T. Seaborg, 1912-1999) is a Nobel prize winner (Chemistry, 1951), have crafted a well balanced and comprehensive text (19 chapters, 670 pages) of modern nuclear chemistry. The first twelve chapters cover the basic scientific concepts behind nuclear science (structure of the nuclei, nuclear forces and decay) while the remaining seven chapters deal with applications (analytical applications of nuclear chemistry, reactor chemistry, and radiochemical techniques). There are plenty of figures, diagrams and tables throughout the book. The appendix of the book contains the so called nuclear wallet cards each summarizing the properties of a specific radioactive nuclide. By having four cards per page, however, the size of the text of each card is too small and therefore difficult to read unless one does not use a lens. Anyway, a part from this glitch, the book is worth reading and represents a key reference in the field of nuclear science. Figure 15.9 is a nice picture of the late professor Seaborg pointing to the element seaborgium (Sg, Z=106). For a biography of Glenn Seaborg, see the book Adventures in the Atomic Age: From Watts to Washington (2001).

I bought this book to expand upon my education from a course I took on Radiochemistry as an

undergraduate student. The fact that Glenn Seaborg, a co-discoverer of plutonium, is a co-author influenced my selection of this book. The book is a comprehensive overview of the scope and definition of nuclear chemistry and where it is applied in the modern world. It covers in detail nuclear properties and structure, nuclear reactions, fission, radioactive decay, radiation detectors, radiochemical techniques, the interaction of radiation with matter, and much more. The chapter on Nuclear Reactor Chemistry was particularly informative about the radiochemistry of uranium, nuclear fuel processing and radioactive waste disposal; the latter a national problem that still needs to be solved. I recommend it to all undergraduate chemistry students, professional chemists in other branches of chemistry, and chemical and nuclear engineers who wish to understand just what constitutes nuclear chemistry. The references and bibliographies are very helpful for further research. The book exceeded my expectations in technical content.

I almost applied to be a Ph.D student in nuclear chemistry in the university in Oregon that the author works in. Too bad it was in the middle of nowhere. The book is pretty well organized and I feel that I learned a lot during the course and especially from the book. There seemed to me to be a lot of focus on the nuclear shell model. There are a number of mistakes though, but I had been given an erratum which I think the author has available. At any rate, you won’t be disappointed.

The book Modern Nuclear Chemistry was delivered in good conditions and in time, which is the most important thing for a student

The text and the examples are clear. Useful book for those students interested in this field of study.

The book is fine but it CANNOT DESERVE FIVE STARS given the known errors it contains and the failure of the publisher to update this book. Instructors who assign this know about the errors (or at least they should) and continue to assign it because of the mix of topics and they way they are presented are pretty good compared to other texts that can be somewhat skewed.Edited Sept 2014:As an aid to buyers of the book, the erratum can be found online at either of the two following university webpages:http://oregonstate.edu/instruct/ch374/ch418518/LMSerrata.pdfhttp://www.murr.missouri.edu/nncss/files/Textbook_Errata.pdf

The book arrived very quickly and is exactly what I needed for my class, thanks!

Download to continue reading...

Nuclear Prepared - How to Prepare for a Nuclear Attack and What to do Following a Nuclear Blast: Everything you Need to Know to Plan and Prepare for a Nuclear Attack Nuclear energy. Radioactivity. Engineering in Nuclear Power Plants: Easy course for understanding nuclear energy and engineering in nuclear power plans (Radioactive Disintegration) Handbook of Nuclear Chemistry: Vol. 1: Basics of Nuclear Science; Vol. 2: Elements and Isotopes: Formation, Transformation, Distribution; Vol. 3: ... Nuclear Energy Production and Safety Issues. Modern Chemistry Florida: Holt Chemistry and Modern Chemistry FCAT Standardized Test Preparation Study Guide: Ace Organic Chemistry I - The EASY Guide to Ace Organic Chemistry I: (Organic Chemistry Study Guide, Organic Chemistry Review, Concepts, Reaction Mechanisms and Summaries) Ace General Chemistry I and II (The EASY Guide to Ace General Chemistry I and II): General Chemistry Study Guide, General Chemistry Review Principles of Nuclear Chemistry (Essential Textbooks in Chemistry) Nuclear Danger - An Inconvenient Discovery: Americans Are Vunerable To Nuclear Radiation Nuclear War Survival Skills: Lifesaving Nuclear Facts and Self-Help Instructions Nuclear War Survival Skills (Upgraded 2012 Edition) (Red Dog Nuclear Survival) Essentials of Nuclear Medicine Imaging: Expert Consult - Online and Print, 6e (Essentials of Nuclear Medicine Imaging (Mettler)) Radiopharmaceuticals in Nuclear Pharmacy and Nuclear Medicine Nuclear Reactor Design (An Advanced Course in Nuclear Engineering) Keeping the Lights on at America’s Nuclear Power Plants (Shultz-Stephenson Task Force on Energy Policy Reinventing Nuclear Power Essay) My Nuclear Nightmare: Leading Japan through the Fukushima Disaster to a Nuclear-Free Future Nuclear Accidents and Disasters (Nuclear Power) Fusion (Nuclear Power) (Nuclear Power (Facts on File)) Nuclear Energy, Seventh Edition: An Introduction to the Concepts, Systems, and Applications of Nuclear Processes Nuclear Engineering: Theory and Technology of Commercial Nuclear Power Nuclear Chemical Engineering (McGraw-Hill series in nuclear engineering)

Contact Us

DMCA

Privacy

FAQ & Help