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### KEY=MOS - CHURCH MATHEWS

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#### ADHERENCE TO LONG-TERM THERAPIES

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#### EVIDENCE FOR ACTION

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**World Health Organization** *This report is based on an exhaustive review of the published literature on the definitions, measurements, epidemiology, economics and interventions applied to nine chronic conditions and risk factors.*

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#### NANOWIRE TRANSISTORS

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#### PHYSICS OF DEVICES AND MATERIALS IN ONE DIMENSION

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**Cambridge University Press** *A self-contained and up-to-date account of the current developments in the physics and technology of nanowire semiconductor devices.*

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#### BODY SENSOR NETWORKS

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**Springer** *The last decade has witnessed a rapid surge of interest in new sensing and monitoring devices for wellbeing and healthcare. One key development in this area is wireless, wearable and implantable in vivo monitoring and intervention. A myriad of platforms are now available from both academic institutions and commercial organisations. They permit the management of patients with both acute and chronic symptoms, including diabetes, cardiovascular diseases, treatment of epilepsy and other debilitating neurological disorders. Despite extensive developments in sensing technologies, there are significant research issues related to system integration, sensor miniaturisation, low-power sensor interface, wireless telemetry and signal processing. In the 2nd edition of this popular and authoritative reference on Body Sensor Networks (BSN), major topics related to the latest technological developments and potential clinical applications are discussed, with contents covering. Biosensor Design, Interfacing and Nanotechnology Wireless Communication and Network Topologies Communication Protocols and Standards Energy Harvesting and Power Delivery Ultra-low Power Bio-inspired Processing Multi-sensor Fusion and Context Aware Sensing Autonomic Sensing Wearable, Ingestible Sensor Integration and Exemplar Applications System Integration and Wireless Sensor Microsystems The book also provides a comprehensive review of the current wireless sensor development platforms and a step-by-step guide to developing your own BSN applications through the use of the BSN development kit.*

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#### MILITARY OCCUPATIONAL SPECIALTIES MANUAL (MOS MANUAL)

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#### MICROALGAL BIOTECHNOLOGY: INTEGRATION AND ECONOMY

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**Walter de Gruyter** *With the high interest in renewable resources, the field of algal biotechnology has undergone a huge leap in importance in recent years. The book Microalgae Biotechnology - Integration and Economy treats integrated approaches to bring the high potential of microalgae into application, accelerate the development of really working production processes and put finally the products on the market. Close interaction of biology and process engineering becomes visible in the described processes. The big impact of microalgal biotechnology on our future society is outlined as a desirable consequence of scientific progress. This book will allow protagonists in academia and industry as well as decision makers in industry and politics to get a clear picture of current possibilities and future trends in microalgal biotechnology.*

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#### THE NEW SILK ROAD BECOMES THE WORLD LAND-BRIDGE

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**Executive Intelligence Review** *EIR RELEASES ROAD-MAP TO THE NEW WORLD ECONOMIC ORDER: THE NEW SILK ROAD BECOMES THE WORLD LAND-BRIDGE* EIR's comprehensive study of the progress of the Eurasian Land-Bridge project which Lyndon and Helga LaRouche have championed for over 20 years, has finally been completed. The official release date is Dec. 1. The 374-page report, entitled *The New Silk Road Becomes the World Land-Bridge*, " is nothing less than a conceptual, and often physical, road-map" to a New World Economic Order. This path is currently being charted by the nations of the BRICS (Brazil, Russia, India, China, and South Africa), who are leading a dynamic of global optimism toward real economic development, complete with new credit institutions and major high-technology projects for uplifting all mankind. After an introduction by Helga Zepp-LaRouche, the report lays out the "Metrics of Progress," based on the economic scientific principles developed by renowned physical economist Lyndon LaRouche. It then proceeds region by region, beginning with China and Russia, to present the stunning progress, and plans, which have been made toward the Eurasian Land-Bridge design that the Chinese government laid out in 1996, and other nations have begun to rally behind in recent years. The report, complete with many full-color maps of its featured development corridors, is available in paperback for \$50 and hard cover bound for \$75.

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#### ADVANCES IN CONCENTRATING SOLAR THERMAL RESEARCH AND TECHNOLOGY

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**Woodhead Publishing** *After decades of research and development, concentrating solar thermal (CST) power plants (also known as concentrating solar power (CSP) and as Solar Thermal Electricity or STE systems) are now starting to be widely commercialized. Indeed, the IEA predicts that by 2050, with sufficient support over ten percent of global electricity could be produced by concentrating solar thermal power plants. However, CSP plants are just but one of the many possible applications of CST systems. Advances in Concentrating Solar Thermal Research and Technology provides detailed information on the latest advances in CST systems research and technology. It promotes a deep understanding of the challenges the different CST technologies are confronted with, of the research that is taking place worldwide to address those challenges, and of the impact that the innovation that this research is fostering could have on the emergence of new CST components and concepts. It is anticipated that these developments will substantially increase the cost-competitiveness of commercial CST solutions and reshape the technological landscape of both CST technologies and the CST industry. After an introductory chapter, the next three parts of the book focus on key CST plant components, from mirrors and receivers to thermal storage. The final two parts of the book address operation and control and innovative CST system concepts. Contains authoritative reviews of CST research taking place around the world Discusses the impact this research is fostering on the emergence of new CST components and concepts that will substantially increase the cost-competitiveness of CST power Covers both major CST plant components and system-wide issues*

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#### HIGH MOBILITY MATERIALS FOR CMOS APPLICATIONS

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**Woodhead Publishing** *High Mobility Materials for CMOS Applications provides a comprehensive overview of recent developments in the field of (Si)Ge and III-V materials and their integration on Si. The book covers material growth and integration on Si, going all the way from device to circuit design. While the book's focus is on digital applications, a number of chapters also address the use of III-V for RF and analog applications, and in optoelectronics. With CMOS technology moving to the 10nm node and beyond, however, severe concerns with power dissipation and performance are arising, hence the need for this timely work on the advantages and challenges of the technology. Addresses each of the challenges of utilizing high mobility materials for CMOS applications, presenting possible solutions and the latest innovations Covers the latest advances in research on heterogeneous integration, gate stack, device design and scalability Provides a broad overview of the topic, from materials integration to circuits*

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#### ONE HEALTH: THE HUMAN-ANIMAL-ENVIRONMENT INTERFACES IN EMERGING INFECTIOUS DISEASES

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## FOOD SAFETY AND SECURITY, AND INTERNATIONAL AND NATIONAL PLANS FOR IMPLEMENTATION OF ONE HEALTH ACTIVITIES

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**Springer Science & Business Media** *One Health is an emerging concept that aims to bring together human, animal, and environmental health. Achieving harmonized approaches for disease detection and prevention is difficult because traditional boundaries of medical and veterinary practice must be crossed. In the 19th and early 20th centuries this was not the case—then researchers like Louis Pasteur and Robert Koch and physicians like William Osler and Rudolph Virchow crossed the boundaries between animal and human health. More recently Calvin Schwabe revised the concept of One Medicine. This was critical for the advancement of the field of epidemiology, especially as applied to zoonotic diseases. The future of One Health is at a crossroads with a need to more clearly define its boundaries and demonstrate its benefits. Interestingly the greatest acceptance of One Health is seen in the developing world where it is having significant impacts on control of infectious diseases.*

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## MODULAR SYSTEMS FOR ENERGY USAGE MANAGEMENT

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"...[a] very unique book that integrates benefits of modular systems for enhanced sustainability to meet the global challenges of rapid and sometimes uncontrolled industrialization in the 21st century."--Pinakin Patel, T2M Global This book examines the role of the modular approach for the back end of the energy industry--energy usage management. It outlines the use of modular approaches for the processes used to improve energy conservation and efficiency, which are preludes to the prudent use of energy. Since energy consumption is conventionally broken down into four sectors--residential, transportation, industrial, and commercial--the discussions on energy usage management are also broken down into these four sectors in the book. The book examines the use of modular systems for five application areas that cover the sectors described above: buildings, vehicles, computers and electrical/electronic products, district heating, and wastewater treatment and desalination. This book also discusses the use of a modular approach for energy storage and transportation. Finally, it describes how the modular approach facilitates bottom-up, top-down, and hybrid simulation and modeling of the energy systems from various scientific and socioeconomic perspectives. Aimed at industry professionals and researchers involved in the energy industry, this book illustrates in detail, with the help of concrete industrial examples, how a modular approach can facilitate management of energy usage.

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## ACQUISITION LOGISTICS GUIDE

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**U.S. Government Printing Office**

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## METALLIC FILMS FOR ELECTRONIC, OPTICAL AND MAGNETIC APPLICATIONS

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### STRUCTURE, PROCESSING AND PROPERTIES

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**Woodhead Publishing** *Metallic films play an important role in modern technologies such as integrated circuits, information storage, displays, sensors, and coatings. Metallic Films for Electronic, Optical and Magnetic Applications reviews the structure, processing and properties of metallic films. Part one explores the structure of metallic films using characterization methods such as x-ray diffraction and transmission electron microscopy. This part also encompasses the processing of metallic films, including structure formation during deposition and post-deposition reactions and phase transformations. Chapters in part two focus on the properties of metallic films, including mechanical, electrical, magnetic, optical, and thermal properties. Metallic Films for Electronic, Optical and Magnetic Applications is a technical resource for electronics components manufacturers, scientists, and engineers working in the semiconductor industry, product developers of sensors, displays, and other optoelectronic devices, and academics working in the field. Explores the structure of metallic films using characterization methods such as x-ray diffraction and transmission electron microscopy Discusses processing of metallic films, including structure formation during deposition and post-deposition reactions and phase transformations Focuses on the properties of metallic films, including mechanical, electrical, magnetic, optical, and thermal properties*

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## ADVANCED NANOSCALE ULSI INTERCONNECTS: FUNDAMENTALS AND APPLICATIONS

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**Springer Science & Business Media** *In Advanced ULSI interconnects - fundamentals and applications we bring a comprehensive description of copper-based interconnect technology for ultra-lar- scale integration (ULSI) technology for integrated circuit (IC) application. In- grated circuit technology is the base for all modern electronics systems. You can ?nd electronics systems today everywhere: from toys and home appliances to a- planes and space shuttles. Electronics systems form the hardware that together with software are the bases of the modern information society. The rapid growth and vast exploitation of modern electronics system create a strong demand for new and improved electronic circuits as demonstrated by the amazing progress in the ?eld of ULSI technology. This progress is well described by the famous "Moore's law" which states, in its most general form, that all the metrics that describe integrated circuit performance (e. g. , speed, number of devices, chip area) improve expon- tially as a function of time. For example, the number of components per chip d- bles every 18 months and the critical dimension on a chip has shrunk by 50% every 2 years on average in the last 30 years. This rapid growth in integrated circuits te- nology results in highly complex integrated circuits with an increasing number of interconnects on chips and between the chip and its package. The complexity of the interconnect network on chips involves an increasing number of metal lines per interconnect level, more interconnect levels, and at the same time a reduction in the interconnect line critical dimensions.*

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## THE STRUCTURE OF IONIC LIQUIDS

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**Springer Science & Business Media** *This volume describes the most recent findings on the structure of ILs interpreted through cutting-edge experimental and theoretical methods. Research in the field of ionic liquids (ILs) keeps a fast and steady pace. Since these new-generation molten salts first appeared in the chemistry and physics landscape, a large number of new compounds has been synthesized. Most of them display unexpected behaviour and possess stunning properties. The coverage in this book ranges from the mesoscopic structure of ILs to their interaction with proteins. The reader will learn how diffraction techniques (small and large angle X-Ray and neutron scattering, powder methods), X-Ray absorption spectroscopies (EXAFS/XANES), optical methods (IR, RAMAN), NMR and calorimetric methods can help the study of ILs, both as neat liquids and in mixtures with other compounds. It will enable the reader to choose the best method to suit their experimental needs. A detailed survey of theoretical methods, both quantum-chemical and classical, and of their predictive power will accompany the exposition of experimental ones. This book is a must read for postgraduate students, for post-docs, and for researchers who are interested in understanding the structural properties of ILs.*

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## FUNCTIONAL NANOSTRUCTURED MEMBRANES

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**CRC Press** *A membrane is considered the heart of every separation process because it is developed as a nanostructured/nanofunctionalized thin barrier that controls the exchange between two phases, not only by external forces and under the effect of fluid properties, but also through the intrinsic characteristics of the membrane material itself. This book compiles cutting-edge research in membrane science, nanomaterials, and nanotechnologies, mainly from interdisciplinary research groups at the Institute on Membrane Technology, National Research Council (ITM-CNR), Italy, working on membrane design, membrane process engineering, and selected materials and practices for enhanced transport mass, charge, and energy. It covers topics on the design of new nanostructured membranes with improved properties, together with the identification of efficient transport-property relationships. It shares and strengthens the knowledge of making membrane technology a much more powerful and eco-friendly route, enabling one to provide prospective solutions and benefits for numerous fields of applications where traditional separation technologies suffer from many deficiencies. It is a great reference for researchers and investigators; graduate, PhD, and postgraduate students; and end users interested in membrane science and technology, nanomaterials, eco-friendly separation, chemistry, biology, and process engineering.*

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## THE NEOLIBERAL DIET

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### HEALTHY PROFITS, UNHEALTHY PEOPLE

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**University of Texas Press** *Why are people getting fatter in the United States and beyond? Mainstream explanations argue that people simply eat too much "energy-dense" food while exercising too little. By swapping the chips and sodas for fruits and vegetables and exercising more, the problem would be solved. By contrast, The Neoliberal Diet argues that increased obesity does not result merely from individual food and lifestyle choices. Since the 1980s, the neoliberal turn in policy and practice has promoted trade liberalization and retrenchment of the welfare regime, along with continued agricultural subsidies in rich countries. Neoliberal regulation has enabled agribusiness multinationals to thrive by selling highly processed foods loaded with refined flour and sugars—a diet that originated in the United States—as well as meat. Drawing on extensive empirical data, Gerardo Otero identifies the socioeconomic and political forces that created this diet, which has been exported around the globe, often at the expense of people's health. Otero shows how state-level actions, particularly subsidies for big farms and agribusiness, have ensured the dominance of processed foods and made healthful fresh foods inaccessible to many. Comparing agrifood performance across several nations, including the NAFTA region, and correlating food access to class inequality, he convincingly demonstrates the structural character of food production and the effect of inequality on individual food*

choices. Resolving the global obesity crisis, Otero concludes, lies not in blaming individuals but in creating state-level programs to reduce inequality and make healthier food accessible to all.

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## **NANOSTRUCTURED SEMICONDUCTORS**

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**Woodhead Publishing** *Nanostructured Semiconductors* focuses on the development of semiconductor nanocrystals, their technologies and applications, including energy harvesting, solar cells, solid oxide fuel cells, and chemical sensors. Semiconductor oxides are used in electronics, optics, catalysts, sensors, and other functional devices. In their 2D form, the reduction in size confers exceptional properties, useful for creating faster electronics and more efficient catalysts. Since the first edition of the book, there has been significant progress in the development of new functional nanomaterials with unique and sometimes unpredictable quantum-confined properties within the class what it called two-dimensional (2D) semiconductors. These nanocrystals represent extremely thin nano-structures with thickness of just few nano-meters. Since that time, not only were 2D semiconductor oxides further developed, more importantly, 2D metal dichalcogenides, such as MoS<sub>2</sub>, MoSe<sub>2</sub>, WS<sub>2</sub>, WSe<sub>2</sub> and others also progressed significantly in their development demonstrating their superior properties compared to their bulk and microstructural counterparts. The book has been expanded to include these advancements. The book begins with the structure and properties of semiconductor nanocrystals (chapter 1), addresses electronic device applications (chapter 2), discusses 2-Dimensional oxides and dichalcogenide semiconductors (chapters 3 through 5), and ends with energy, environment, and bio applications (chapters 6 through 8). Focuses on the development of semiconductor nanocrystals and their technologies and applications, including energy harvesting, solar cells, solid oxide fuel cells and chemical sensors Include other 2D materials, such as dichalcogenides to present a comprehensive resource on the latest advancements in nanostructured semiconductors Reviews the fundamental physics of conductivity and electron arrangement before proceeding to practical applications Contains a unique chapter dedicated to the new atomic layer deposition (ALD) technique which has the ability to develop 2D nanostructures with great precision

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## **ECOLOGICAL ANTHROPOLOGY OF HOUSEHOLDS IN EAST MADURA, INDONESIA**

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This thesis is the result of anthropological study of rural households in the northeast of Madura, in Indonesia, carried out during eight periods of fieldwork between 1985 and 2009. This logitudinal research employs quantitative, qualitative, synchronic, diachronic and comparative data to understand the development and evolution of a rural community and its households and contribute to resolving key questions regarding Madurese society. In seven chapters and five appendices, the author presents the results of historical and archival research, describes the physical, demographic and agricultural context, and analyses social organization and the demographic, economic and social strategies households employ. For several key phenomena of the study community, models inspired by general ecological theory demonstrate explanatory usefulness, notably through the notions of stability, diversity, and critical transitions. In light of the data analysis, and after clarifying several widely-held misunderstandings concerning the ecological anthropology approach - regarding causality, functionalism, systems, holism and other issues - the author proposes that ecology and anthropology progress better together than either of them can alone.

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## **ELECTROCATALYSIS OF DIRECT METHANOL FUEL CELLS**

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### **FROM FUNDAMENTALS TO APPLICATIONS**

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**John Wiley & Sons** This first book to focus on a comprehensive description on DMFC electrocatalysis draws a clear picture of the current status of DMFC technology, especially the advances, challenges and perspectives in the field. Leading researchers from universities, government laboratories and fuel cell industries in North America, Europe and Asia share their knowledge and information on recent advances in the fundamental theories, experimental methodologies and research achievements. In order to help readers better understand the science and technology of the subject, some important and representative figures, tables, photos, and comprehensive lists of reference papers are also included, such that all the information needed on this topic may be easily located. An indispensable source for physical, catalytic, electro- and solid state chemists, as well as materials scientists and chemists in industry.

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## **PERSONNEL AND ADMINISTRATION TRAINING AND READINESS MANUAL**

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**Createspace Independent Pub** This Training and Readiness (T&R) Manual establishes training standards, regulations and policies regarding the training of Marines in the Personnel and Administration occupational field. The T&R Program is the Corps' primary tool for planning, conducting and evaluating training and assessing training readiness. Subject matter experts (SEMs) from the operating forces developed core capability Mission Essential Task Lists (METLs) for ground communities derived from the Marine Corps Task List (MCTL). This T&R Manual is built around these METLs and other related Marine Corps Tasks (MCT). All events contained in the manual relate directly to these METLs and MCTs. This comprehensive T&R Program will help to ensure the Marine Corps continues to improve its combat readiness by training more efficiently and effectively. Ultimately, this will enhance the Marine Corps' ability to accomplish real-world missions.

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## **WARFIGHTING**

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### **MCDP 1**

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**Vigeo Press** The manual describes the general strategy for the U.S. Marines but it is beneficial for not only every Marine to read but concepts on leadership can be gathered to lead a business to a family. If you want to see what make Marines so effective this book is a good place to start.

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## **ION IMPLANTATION TECHNOLOGY**

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### **17TH INTERNATIONAL CONFERENCE ON ION IMPLANTATION TECHNOLOGY**

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**American Institute of Physics** The conference is focused on recent advances and emerging technologies in semiconductor processing before, during and after ion implantation. The content encompasses fundamental physical understanding, common and novel applications as well as equipment issues, maintenance and design. The primary audience is process engineers in the microelectronics industry. Additional contributions come from academia and other industry segments (automotive, aerospace, and medical device manufacturing).

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## **HANDBOOK OF NANOPHYSICS**

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### **PRINCIPLES AND METHODS**

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**CRC Press** Covering the key theories, tools, and techniques of this dynamic field, *Handbook of Nanophysics: Principles and Methods* elucidates the general theoretical principles and measurements of nanoscale systems. Each peer-reviewed chapter contains a broad-based introduction and enhances understanding of the state-of-the-art scientific content through fundamental equations and illustrations, some in color. This volume explores the theories involved in nanoscience. It also discusses the properties of nanomaterials and nanosystems, including superconductivity, thermodynamics, nanomechanics, and nanomagnetism. In addition, leading experts describe basic processes and methods, such as atomic force microscopy, STM-based techniques, photopolymerization, photoisomerization, soft x-ray holography, and molecular imaging. Nanophysics brings together multiple disciplines to determine the structural, electronic, optical, and thermal behavior of nanomaterials; electrical and thermal conductivity; the forces between nanoscale objects; and the transition between classical and quantum behavior. Facilitating communication across many disciplines, this landmark publication encourages scientists with disparate interests to collaborate on interdisciplinary projects and incorporate the theory and methodology of other areas into their work.

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## **FIRST TO FIGHT**

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### **AN INSIDE VIEW OF THE U.S. MARINE CORPS**

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**Naval Institute Press** "Required Reading" Marine Corps Professional Reading Program Bluejacket Paperback Book Series In this riveting insider's chronicle, legendary Marine General "Brute" Krulak submits an unprecedented examination of U.S. Marines--their fights on the battlefield and off, their extraordinary esprit de corps. Deftly blending history with autobiography, action with analysis, and separating fact from fable, General Krulak touches the very essence of the Corps: what it means to be a Marine and the reason behind its consistently outstanding performance and reputation. Krulak also

addresses the most basic but challenging question of all about the Corps: how does it manage to survive--even to flourish--despite overwhelming political odds and, as the general writes, "an extraordinary propensity for shooting itself in the foot?" To answer this question Krulak examines the foundation on which the Corps is built, a system of intense loyalty to God, to country, and to other Marines. He also takes a close look at Marines in war, offering challenging accounts of their experiences in World War II, Korea, and Vietnam. In addition, he describes the Corps's relationship to other services, especially during the unification battles following World War II, and offers new insights into the decision-making process in times of crisis. First published in hardcover in 1984, this book has remained popular ever since with Marines of every rank.

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## NETWORK AND SYSTEM SECURITY

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### 6TH INTERNATIONAL CONFERENCE, NSS 2012, WUYISHAN, FUJIAN, CHINA, NOVEMBER 21-23, PROCEEDINGS

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**Springer** This book constitutes the refereed proceedings of the 6th International Conference on Network and System Security, NSS 2012, held in Wuyishan, Fujian, China, in November 2012. The 39 revised full papers presented were carefully reviewed and selected from 173 submissions. The papers cover the following topics: network security, system security, public key cryptography, privacy, authentication, security analysis, and access control.

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## PHOTOCHEMISTRY AND PHOTOPHYSICS OF COORDINATION COMPOUNDS II

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**Springer** Photochemistry (a term that broadly speaking includes photophysics) is a branch of modern science that deals with the interaction of light with matter and lies at the crossroads of chemistry, physics, and biology. However, before being a branch of modern science, photochemistry was (and still is today), an extremely important natural phenomenon. When God said: "Let there be light", photochemistry began to operate, helping God to create the world as we now know it. It is likely that photochemistry was the spark for the origin of life on Earth and played a fundamental role in the evolution of life. Through the photosynthetic process that takes place in green plants, photochemistry is responsible for the maintenance of all living organisms. In the geological past photochemistry caused the accumulation of the deposits of coal, oil, and natural gas that we now use as fuels. Photochemistry is involved in the control of ozone in the stratosphere and in a great number of environmental processes that occur in the atmosphere, in the sea, and on the soil. Photochemistry is the essence of the process of vision and causes a variety of behavioral responses in living organisms. Photochemistry as a science is quite young; we only need to go back less than one century to find its early pioneer [1]. The concept of coordination compound is also relatively young; it was established in 1892, when Alfred Werner conceived his theory of metal complexes [2]. Since then, the terms coordination compound and metal complex have been used as synonyms, even if in the last 30 years, coordination chemistry has extended its scope to the binding of all kinds of substrates [3, 4].

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## BATTLE LEADERSHIP

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**Echo Point Books & Media** Although the technologies of war will always change, the insights of great leaders are timeless. And at no time are those lessons more important than in the heat of combat with lives on the line. The key is in preparation before a conflict. Battle Leadership helps you be prepared by teaching such essential skills as: How to handle different personalities under extreme stress. How to prepare your troops psychologically for combat. Insight into proven battlefield tactics (even if some of those tactics are only still relevant for their historical insights). How to instill confidence in those following you. While military tactics change, the wisdom of true leadership invariably holds. These lessons can even be applied to running a business, non-profit or government department, but they are crucial to every military commander or aspiring officer. Find out why when lives are on the line, generations have turned to and continue to learn from Battle Leadership.

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## JUDGING RESEARCH

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### THE 2019 MPDI WRITING PRIZE

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The 2019 MPDI Writing Prize invited early stage researchers who are not native English speakers to write on the subject of "how research should be evaluated and how researchers should be rewarded". Six prizes were awarded, however there were many more entries. This book collates many of those entries and contains inspiring, thought-provoking and original viewpoints of open science through the eyes of those conducting research on a daily basis.

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## UTMOST SAVAGERY

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### THE THREE DAYS OF TARAWA

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**Naval Institute Press** On November 20, 1943, in the first trial by fire of America's fledgling amphibious assault doctrine, five thousand men stormed the beaches of Tarawa, a seemingly invincible Japanese island fortress barely the size of the Pentagon parking lots (three-hundred acres!). Before the first day ended, one third of the Marines who had crossed Tarawa's deadly reef under murderous fire were killed, wounded, or missing. In three days of fighting, four Americans would win the Medal of Honor. And six-thousand combatants would die. Now, Col. Joseph Alexander, a combat Marine himself, presents the full story of Tarawa in all its horror and glory: the extreme risks, the horrific combat, and the heroic breakthroughs. Based on exhaustive research, never-before-published accounts from Marine survivors, and new evidence from Japanese sources, Colonel Alexander captures the grit, guts, and relentless courage of United States Marines overcoming outrageous odds to deliver victory for their country.

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## PHOTOELECTROCHEMICAL SOLAR CELLS

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**John Wiley & Sons** This book provides an overall view of the photoelectrochemical systems for solar hydrogen generation, and new and novel materials for photoelectrochemical solar cell applications. The book is organized in three parts. General concepts and photoelectrochemical systems are covered in Part I. Part II is devoted to photoactive materials for solar hydrogen generation. Main focus of the last part is the photoelectrochemical related systems. This part provides a diverse information about the implementation of multi-junctional solar cells in solar fuel generation systems, dye-sensitized solar hydrogen production and photocatalytic formation of photoactive semiconductors.

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## INTELLIGENCE TRAINING AND READINESS MANUAL

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Intelligence Training and Readiness Manual (NAVMC 3500.100) details standardized training of Marines and Navy personnel assigned to perform intelligence functions.

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## GARRISON MOBILE EQUIPMENT

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**CreateSpace** The purpose of this volume is to publish policy and procedures for garrison mobile equipment (GME) issued by the Commandant of the Marine Corps (CMC). This Manual provides administrative and technical instructions, policies, and procedures for all personnel involved in the management of procurement, operation, and maintenance of GME.

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## ON-SURFACE SYNTHESIS

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### PROCEEDINGS OF THE INTERNATIONAL WORKSHOP ON-SURFACE SYNTHESIS, ÉCOLE DES HOUCHEs, LES HOUCHEs 25-30 MAY 2014

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**Springer** With contributions by leading international experts, this book presents a detailed compilation of a new and very active field. It is the first book devoted to the covalent coupling of molecular precursors on surfaces that allows the preparation of 0D, 1D and 2D molecules that cannot be synthesized in solution. This book is aimed at students and researchers interested in nanochemistry and molecular devices and it gives the reader a pedagogical up-to-date vision of the most recent developments. The editor ensures a multidisciplinary approach involving molecular chemistry, surface sciences, surface spectroscopies, theory, scanning tunneling and non-contact atomic force microscopies.

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**METAMATERIAL ELECTROMAGNETIC WAVE ABSORBERS**

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**Morgan & Claypool Publishers** *Electromagnetic metamaterials are a family of shaped periodic materials which achieve extraordinary scattering properties that are difficult or impossible to achieve with naturally occurring materials. This book focuses on one such feature of electromagnetic metamaterials—the theory, properties, and applications of the absorption of electromagnetic radiation. We have written this book for undergraduate and graduate students, researchers, and practitioners, covering the background and tools necessary to engage in the research and practice of metamaterial electromagnetic wave absorbers in various fundamental and applied settings. Given the growing impact of climate change, the call for innovations that can circumvent the use of conventional energy sources will be increasingly important. As we highlight in Chapter 6, the absorption of radiation with electromagnetic metamaterials has been used for energy harvesting and energy generation, and will help to reduce reliance on fossil fuels. Other applications ranging from biochemical sensing to imaging are also covered. We hope this book equips interested readers with the tools necessary to successfully engage in applied metamaterials research for clean, sustainable energy. This book consists of six chapters. Chapter 1 provides an introduction and a brief history of electromagnetic wave absorbers; Chapter 2 focuses on several theories of perfect absorbers; Chapter 3 discusses the scattering properties achievable with metamaterial absorbers; Chapter 4 provides significant detail on the fabrication processes; Chapter 5 discusses examples of dynamical absorbers; and Chapter 6 highlights applications of metamaterial absorbers.*

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**2D METAL CARBIDES AND NITRIDES (MXENES)**

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**STRUCTURE, PROPERTIES AND APPLICATIONS**

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**Springer Nature** *This book describes the rapidly expanding field of two-dimensional (2D) transition metal carbides and nitrides (MXenes). It covers fundamental knowledge on synthesis, structure, and properties of these new materials, and a description of their processing, scale-up and emerging applications. The ways in which the quickly expanding family of MXenes can outperform other novel nanomaterials in a variety of applications, spanning from energy storage and conversion to electronics; from water science to transportation; and in defense and medical applications, are discussed in detail.*

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**BIOMASS RECALCITRANCE**

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**DECONSTRUCTING THE PLANT CELL WALL FOR BIOENERGY**

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**Wiley-Blackwell** *This book examines the connection between biomass structure, ultrastructure, and composition, to resistance to enzymatic deconstruction, with the aim of discovering new cost-effective technologies for biorefineries. It contains chapters on topics extending from the highest levels of biorefinery design and biomass life-cycle analysis, to detailed aspects of plant cell wall structure, chemical treatments, enzymatic hydrolysis, and product fermentation options."--Pub. desc.*

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**AIRCRAFT NONDESTRUCTIVE INSPECTION TECHNICIAN**

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**Canadian Aviation Maintenance Council = Conseil canadien de l'entretien des aéronefs**

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**THE REMINISCENCES OF A MARINE**

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*John Archer Lejeune (1867 - "Although there have been many men who have left their mark on the United States Marine Corps, few have created such a lasting impression as John Archer Lejeune."Historical StudiesThe Reminiscences of a Marine is the fascinating account of the life of one of the greatest Marines, John Archer Lejeune: naval cadet, Marine Corps lieutenant, WW1 Division Commander and Commandant of the Marine Corps. 1942) was a United States Marine Corps lieutenant general and the 13th Commandant of the Marine Corps. Lejeune had nearly 40 years service in the Marine Corps including commanding the U.S. Army's 2nd Division during World War I. His service with the Marine Corps after he retired was as the 5th Superintendent of the Virginia Military Institute. John Archer Lejeune (January 10, 1867 - 1942) was a United States Marine Corps lieutenant general and the 13th Commandant of the Marine Corps. Lejeune had nearly 40 years service in the Marine Corps including commanding the U.S. Army's 2nd Division during World War I. His service with the Marine Corps after he retired was as the 5th Superintendent of the Virginia Military Institute. Marine Corps Base Camp Lejeune in North Carolina was named in his honor during World War II. Lejeune is often referred to in the present day as being the "greatest of all Leathernecks" and the "Marine's Marine."*