

## **2015 Arctic Cat Zr 5000 7000 9000 Xf 7000 Pantera High Country 9000 M 7000 9000 4 Stroke Snow Le Models Service Manual**

This text defines what constitutes cosmeceuticals and discusses various classes of products, from anti-ageing skin care and repair, anti-acne, and hair-growth compounds to agents for treating skin infections, rashes and irritations.

A definitive guide to the depth and breadth of the ecological sciences, revised and updated The revised and updated fifth edition of Ecology: From Individuals to Ecosystems – now in full colour – offers students and practitioners a review of the ecological sciences. The previous editions of this book earned the authors the prestigious ‘Exceptional Life-time Achievement Award’ of the British Ecological Society – the aim for the fifth edition is not only to maintain standards but indeed to enhance its coverage of Ecology. In the first edition, 34 years ago, it seemed acceptable for ecologists to hold a comfortable, objective, not to say aloof position, from which the ecological communities around us were simply material for which we sought a scientific understanding. Now, we must accept the immediacy of the many environmental problems that threaten us and the

responsibility of ecologists to play their full part in addressing these problems. This fifth edition addresses this challenge, with several chapters devoted entirely to applied topics, and examples of how ecological principles have been applied to problems facing us highlighted throughout the remaining nineteen chapters. Nonetheless, the authors remain wedded to the belief that environmental action can only ever be as sound as the ecological principles on which it is based. Hence, while trying harder than ever to help improve preparedness for addressing the environmental problems of the years ahead, the book remains, in its essence, an exposition of the science of ecology. This new edition incorporates the results from more than a thousand recent studies into a fully up-to-date text. Written for students of ecology, researchers and practitioners, the fifth edition of *Ecology: From Individuals to Ecosystems* is an essential reference to all aspects of ecology and addresses environmental problems of the future.

This book discusses the role of probiotics and prebiotics in maintaining the health status of a broad range of animal groups used for food production. It also highlights the use of beneficial microorganisms as protective agents in animal derived foods. The book provides essential information on the characterization and definition of probiotics on the basis of recently released guidelines and reflecting

the latest trends in bacterial taxonomy. Last but not least, it discusses the concept of “dead” probiotics and their benefits to animal health in detail. The book will benefit all professors, students, researchers and practitioners in academia and industry whose work involves biotechnology, veterinary sciences or food production.

This volume presents papers on the use of micro-XRF core scanners in palaeoenvironmental research. It contains a broad ranging view of instrument capability and points to future developments that will help contribute to higher precision elemental data and faster core analysis. Readers will find a diverse range of research by leading experts that have used micro-XRF core scanners in a wide range of scientific applications. The book includes specific application papers reporting on the use of XRF core scanners in a variety of marine, lacustrine, and pollution studies. In addition, coverage also examines practical aspects of core scanner usage, data optimisation and data calibration and interpretation. In a little over a decade, micro-XRF sediment core scanners have made a substantive contribution to palaeoenvironmental research. Their impact is based on their ability to rapidly, non-destructively and automatically scan sediment cores. Not only do they rapidly provide important proxy data without damaging samples, but they can obtain

environmental data at decadal, annual and even sub-annual scales. This volume will help both experienced and new users of these non-destructive core scanners take full advantage of one of the most powerful geochemical screening tools in the environmental scientist's toolbox.

The UNEP Governing Council of February 2013 requested the United Nations Environment Programme "to develop a global outlook of challenges, trends and policies in relation to waste prevention, minimization and management, taking into account the materials life cycle, subject to the availability of extra-budgetary resources and in consultation with Governments and stakeholders, building on available data, best practices and success stories, taking into account the Global Chemicals Outlook and any other relevant initiatives and taking care not to duplicate existing information, to provide guidance for national policy planning." UNEP's International Environmental Technology Centre (IETC), in collaboration with the International Solid Waste Association (ISWA), has taken the lead on this initiative; aiming to develop the Global Waste Management Outlook as a tool to provide an authoritative overview, analysis and recommendations for action of policy instruments and financing models for waste management. The GWMO is the result of two year's work and provides the first comprehensive global overview of the state

of waste management around the world in the 21st century.

Radiation and the effects of radioactivity have been known for more than 100 years. International research spanning this period has yielded a great deal of information about radiation and its biological effects and this activity has resulted in the discovery of many applications in medicine and industry including cancer therapy, medical diagnostics

The book deals with the fundamentals, theoretical bases, and design methodologies of conventional internal combustion engine (ICE) vehicles, electric vehicles (EVs), hybrid electric vehicles (HEVs), and fuel cell vehicles (FCVs). The design methodology is described in mathematical terms, step-by-step, and the topics are approached from the overall drive train system, not just individual components. Furthermore, in explaining the design methodology of each drive train, design examples are presented with simulation results.

Extractive Metallurgy of NiobiumRoutledge

From a journalist on the frontlines of the Students for Fair Admission (SFFA) v. Harvard case comes a probing examination of affirmative action, the false narrative of American meritocracy, and the attack on Asian American excellence with its far-reaching implications—from seedy test-prep centers to gleaming gifted-and-talented magnet schools, to top colleges and elite business, media, and political

positions across America. Even in the midst of a nationwide surge of bias and incidents against them, Asians from coast to coast have quietly assumed mastery of the nation's technical and intellectual machinery and become essential American workers. Yet, they've been forced to do so in the face of policy proposals?written in the name of diversity?excluding them from the upper ranks of the elite. In *An Inconvenient Minority*, journalist Kenny Xu traces elite America's longstanding unease about a minority potentially upending them. Leftist agendas, such as eliminating standardized testing, doling out racial advantages to "preferred" minorities, and lumping Asians into "privileged" categories despite their deprived historical experiences have spurred Asian Americans to act. Going beyond the *Students for Fair Admission (SFFA) v. Harvard* case, Xu unearths the skewed logic rippling countrywide, from Mayor Bill de Blasio's attempted makeover of New York City's Specialized School programs to the battle over "diversity" quotas in Google's and Facebook's progressive epicenters, to the rise of Asian American activism in response to unfair perceptions and admission practices. Asian Americans' time is now, as they increase their direct action and amplify their voices in the face of mounting anti-Asian attacks. *An Inconvenient Minority* chronicles the political and economic repression and renaissance of a long

ignored racial identity group?and how they are central to reversing America's cultural decline and preserving the dynamism of the free world.

Today, microbiology is a rapidly growing discipline in the life sciences, and the technologies are evolving on a virtually daily basis. Next-generation sequencing technologies have revolutionized microbial analysis, and can help us understand the biology and genomic diversity of various bacterial species with significant impacts on agro-ecosystems. In addition, advances in molecular biology and microbiology techniques hold the potential to improve the productivity and sustainability of agriculture and forestry. This new volume addresses the role of microbial genomics in understanding the living systems that exist in the soil and their interactions with plants, an aspect that is also important for crop improvement. The topics covered focus on a deeper and clearer understanding of how microbes cause diseases, the genome-based development of novel antibacterial agents and vaccines, and the role of microbial genomics in crop improvement and agroforestry. Given its scope, the book offers a valuable resource for researchers and students of agriculture and infectious biology.

This book is a comprehensive review of the instrumental analytical methods and their use in environmental monitoring site assessment and remediation follow-up operations. The increased

concern about environmental issues such as water pollution, air pollution, accumulation of pollutants in food, global climate change, and effective remediation processes necessitate the precise determination of various types of chemicals in environmental samples. In general, all stages of environmental work start with the evaluation of organic and inorganic environmental samples. This important book furnishes the fundamentals of instrumental chemical analysis methods to various environmental applications and also covers recent developments in instrumental chemical methods. Covering a wide variety of topics in the field, the book:

- Presents an introduction to environmental chemistry
- Presents the fundamentals of instrumental chemical analysis methods that are used mostly in the environmental work.
- Examines instrumental methods of analysis including UV/Vis, FTIR, atomic absorption, induced coupled plasma emission, electrochemical methods like potentiometry, voltametry, coulometry, and chromatographic methods such as GC and HPLC
- Presents newly introduced chromatographic methodologies such as ion electrophoresis, and combinations of chromatography with pyrolysis methods are given
- Discusses selected methods for the determinations of various pollutants in water, air, and land

Readers will gain a general review of modern instrumental method of chemical analysis

that is useful in environmental work and will learn how to select methods for analyzing certain samples. Analytical instrumentation and its underlying principles are presented, along with the types of sample for which each instrument is best suited. Some noninstrumental techniques, such as colorimetric detection tubes for gases and immnosassays, are also discussed.

Hailed as a breakthrough in the understanding of human evolution, *The History and Geography of Human Genes* offers the first full-scale reconstruction of where human populations originated and the paths by which they spread throughout the world. By mapping the worldwide geographic distribution of genes for over 110 traits in over 1800 primarily aboriginal populations, the authors charted migrations and devised a clock by which to date evolutionary history. This monumental work is now available in a more affordable paperback edition without the myriad illustrations and maps, but containing the full text and partial appendices of the authors' pathbreaking endeavor. Commercial development of energy from renewables and nuclear is critical to long-term industry and environmental goals. However, it will take time for them to economically compete with existing fossil fuel energy resources and their infrastructures. Gas fuels play an important role during and beyond this transition away from fossil fuel dominance to a

balanced approach to fossil, nuclear, and renewable energies. Chemical Energy from Natural and Synthetic Gas illustrates this point by examining the many roles of natural and synthetic gas in the energy and fuel industry, addressing it as both a "transition" and "end game" fuel. The book describes various types of gaseous fuels and how they are recovered, purified, and converted to liquid fuels and electricity generation and used for other static and mobile applications. It emphasizes methane, syngas, and hydrogen as fuels, although other volatile hydrocarbons are considered. It also covers storage and transportation infrastructure for natural gas and hydrogen and methods and processes for cleaning and reforming synthetic gas. The book also deals applications, such as the use of natural gas in power production in power plants, engines, turbines, and vehicle needs. Presents a unified and collective look at gas in the energy and fuel industry, addressing it as both a "transition" and "end game" fuel.

Emphasizes methane, syngas, and hydrogen as fuels. Covers gas storage and transport infrastructure. Discusses thermal gasification, gas reforming, processing, purification and upgrading. Describes biogas and bio-hydrogen production. Deals with the use of natural gas in power production in power plants, engines, turbines, and vehicle needs.

This book presents the Proceedings of The

International Science and Technology Conference “FarEastCon-2018,” which took place on October 2-4, 2018 in Vladivostok, Russian Federation. The conference provided a platform for accumulating expert opinion on projects and initiatives aimed at the implementation of far-sighted scientific research and development, and allowed current scientific and practical achievements to be shared with wide circle of researchers. Featuring selected papers from the conference, the book is of interest to a broad range of experts involved in developing innovative solutions and organizing events that increase the efficiency of economic and innovative activities. This edited book, is a collection of 25 chapters describing the recent advancements in the application of microbial technology in the food and pharmacology sector. The main focus of this book is application of microbes, food preservation techniques utilizing microbes, probiotics, seaweeds, algae, enzymatic abatement of urethane in fermentation of beverages, bioethanol production, pesticides, probiotic biosurfactants, drought tolerance, synthesis of application of oncolytic viruses in cancer treatment, microbe based metallic nanoparticles, agro chemicals, endophytes, metabolites, antibiotics etc. This book highlighted the significant aspects of the vast subject area of microbial biotechnology and their potential applications in food and pharmacology with various

topics from eminent experts around the World. This book would serve as an excellent reference book for researchers and students in the Food Science, Food Biotechnology, Microbiology and Pharmaceutical fields.

Teacher digital resource package includes 2 CD-ROMs and 1 user guide. Includes Teacher curriculum guide, PowerPoint chapter presentations, an image gallery of photographs, illustrations, customizable presentations and student materials, Exam Assessment Suite, PuzzleView for creating word puzzles, and LessonView for dynamic lesson planning. Laboratory and activity disc includes the manual in both student and teacher editions and a lab materials list.

Zoonotic Viruses of Northern Eurasia: Taxonomy and Ecology provides a review of modern data of the taxonomy, distribution, and ecology of zoonotic viruses in the ecosystems of Northern Eurasia. With climate changes, increasing population density of arthropod vectors and vertebrate hosts, development of unused lands, transferences of viruses by birds, bats, infected humans, and animals, vectors allow virus populations to adapt to the new environment. This leads to the appearance of emerging or re-emerging infections. This book presents data about circulation and evolution of influenza viruses, tick-borne encephalitis virus, West Nile virus, Crimean-Congo hemorrhagic fever virus, hantaviruses, Sindbis virus, California encephalitis group viruses and other pathogenic viruses as well as of novel

viruses classified for the first time using next-generation sequence. Features summarized data about the circulation of approximately 80 viruses isolated in natural foci of Northern Eurasia Provides descriptions of the main ecosystems of Northern Eurasia in the context of the ecology of viruses with environmental factors Delineates the potential impact of climate change for the distribution of viruses Includes virus taxonomy, ecology, distribution and pathogenicity for humans and animals This Special Issue Book "Anti-Photoaging and Photo-Protective Compounds from Marine Organisms" is aimed at collecting literature on the below-mentioned keyword topics, which can significantly increase our basic understanding of marine-derived compounds in cosmeceutical product development and increases the value of marine products at the industrial level. Treatment Marshes for Runoff and Polishing represents the most comprehensive and up-date-date resource for the design, construction, and operation of marsh treatment systems. This new edition represents a complete rewrite of the surface flow sections of previous editions of Treatment Wetlands. It is based on the performance hundreds of treatment marshes over the past 40 years. Treatment Marshes focuses on urban and agricultural runoff, river and lake water improvement, and highly treated municipal effluents. New information from the past dozen years is used to improve data interpretation and design concepts. Topics included in this book are Diversity of marsh vegetation Analyses of the human use of treatment marshes New concepts of underground processes and functions Spectrum of

marsh values spanning mitigation, restoration, enhancement, and water quality improvement Improved methods for calculation of evapotranspiration and wetland water temperatures Hydraulics of surface and subsurface flows in marshes Analysis of long track records for deterministic and probabilistic behavior Consideration of integrated microbial and vegetative contaminant removals via mass balances Uptake and emission of gases Performance of urban and agricultural wetlands Design procedures for urban and agricultural wetlands Reduction of trace metals, pesticides, pharmaceuticals, endocrine disruptors, and trace organics Updated capital and O&M economics, and valuation of ancillary benefits An updated list of over 1900 references

The demand for secure, affordable and clean energy is a priority call to humanity. Challenges associated with conventional energy resources, such as depletion of fossil fuels, high costs and associated greenhouse gas emissions, have stimulated interests in renewable energy resources. For instance, there have been clear gaps and rushed thoughts about replacing fossil-fuel driven engines with electric vehicles without long-term plans for energy security and recycling approaches. This book aims to provide a clear vision to scientists, industrialists and policy makers on renewable energy resources, predicted challenges and emerging applications. It can be used to help produce new technologies for sustainable, connected and harvested energy. A clear response to economic growth and clean environment demands is also illustrated.

From Pulitzer Prize finalist Annie Jacobsen, the untold USA Today bestselling story of the CIA's secret paramilitary units. Surprise . . . your target. Kill . . . your enemy. Vanish . . . without a trace. When diplomacy fails, and war is unwise, the president calls on the CIA's Special Activities Division, a highly-classified branch of the CIA and the most effective, black operations force in the world. Originally known as the president's guerrilla warfare corps, SAD conducts risky and ruthless operations that have evolved over time to defend America from its enemies. Almost every American president since World War II has asked the CIA to conduct sabotage, subversion and, yes, assassination. With unprecedented access to forty-two men and women who proudly and secretly worked on CIA covert operations from the dawn of the Cold War to the present day, along with declassified documents and deep historical research, Pulitzer Prize finalist Annie Jacobsen unveils -- like never before -- a complex world of individuals working in treacherous environments populated with killers, connivers, and saboteurs. Despite Hollywood notions of off-book operations and external secret hires, covert action is actually one piece in a colossal foreign policy machine. Written with the pacing of a thriller, *Surprise, Kill, Vanish* brings to vivid life the sheer pandemonium and chaos, as well as the unforgettable human will to survive and the intellectual challenge of not giving up hope that define paramilitary and intelligence work. Jacobsen's exclusive interviews -- with members of the CIA's Senior Intelligence Service (equivalent to the Pentagon's generals), its

counterterrorism chiefs, targeting officers, and Special Activities Division's Ground Branch operators who conduct today's close-quarters killing operations around the world -- reveal, for the first time, the enormity of this shocking, controversial, and morally complex terrain. Is the CIA's paramilitary army America's weaponized strength, or a liability to its principled standing in the world? Every operation reported in this book, however unsettling, is legal.

This textbook focuses on the most important parasites affecting dogs, cats, ruminants, horses, pigs, rabbits, rodents, birds, fishes, reptiles and bees. For each parasite, the book offers a concise summary including its distribution, epidemiology, lifecycle, morphology, clinical manifestations, diagnosis, prophylaxis and therapeutic measures. Numerous informative tables and more than 500 color micrographs and schemes present the most important aspects of the parasites, their induced diseases and the latest information on suitable prevention and control measures. 100 questions at the end of the book offer readers the chance to test their comprehension. The book is well suited as both a textbook and a reference guide for veterinarians, students of the veterinary and life sciences, veterinarian nurses, laboratory staff, and pet and livestock owners. Igapó forests are a common part of the Amazon whose ecosystems are critical to our shared human future. The introduction addresses the structure, function and dynamics of igapó forests in the Amazon basin, focusing on their uniqueness due to their high level of complexity defined as the many ways that different components of

igapó forests in the Amazon basin ecosystem interact and also on how those interactions are on a higher-order compared to other tropical forests. The text then breaks down the igapó ecosystem using these sections: (1) Igapó forests over space and time, (2) Water, light and soils, (3) The carbon cycle, (4) Litter, fungi and invertebrates, (5) Vertebrates, (6) Plant population studies, (7) Plant community studies, and (8) Human impacts and management. Experts from around the world serve as chapter authors that review what is known about their specific part of the igapó ecosystem, what research they have done, and also what needs to be done in the future.

The history of biological control of harmful organisms by mites is marked by outstanding achievements with a few premiere natural enemies. Early works concentrated on the use of predatory mites for the control of synanthropic flies, More recently, the focus has been mostly on mites of the family Phytoseiidae for the control of plant feeding mites. This is an important family of acarine predators of plant pest mites, which are effectively used in agriculture worldwide. Besides the vast knowledge in several species in this family, there are as well many opportunities for biological control, represented in an array of organisms and through the improvement of management techniques, which are constantly explored by researchers worldwide. This has resulted in an increasing interest in predatory mite species within the families Stigmaeidae, Ascidae, Laelapidae, Rhodacaroidea, Macrochelidae, Erythraeidae and Cheyletidae, among others. This book will compile

important developments with predatory mite species within these families, which are emerging as important tools for integrated pest management. New developments with predatory insects and pathogenic organisms attacking mites will also be a subject of this book. Finally, the potential and gaps in knowledge in biological control of acarine plant pests will be addressed.

We are facing a global energy crisis caused by world population growth, an escalating increase in demand, and continued dependence on fossil-based fuels for generation. It is widely accepted that increases in greenhouse gas concentration levels, if not reversed, will result in major changes to world climate with consequential effects on our society and economy. This is just the kind of intractable problem that Purdue University's Global Policy Research Institute seeks to address in the Purdue Studies in Public Policy series by promoting the engagement between policy makers and experts in fields such as engineering and technology. Major steps forward in the development and use of technology are required. In order to achieve solutions of the required scale and magnitude within a limited timeline, it is essential that engineers be not only technologically-adept but also aware of the wider social and political issues that policy-makers face. Likewise, it is also imperative that policy makers liaise closely with the academic community in order to realize advances. This book is designed to bridge the gap between these two groups, with a particular emphasis on educating the socially-conscious engineers and technologists of the

future. In this accessibly-written volume, central issues in global energy are discussed through interdisciplinary dialogue between experts from both North America and Europe. The first section provides an overview of the nature of the global energy crisis approached from historical, political, and sociocultural perspectives. In the second section, expert contributors outline the technology and policy issues facing the development of major conventional and renewable energy sources. The third and final section explores policy and technology challenges and opportunities in the distribution and consumption of energy, in sectors such as transportation and the built environment. The book's epilogue suggests some future scenarios in energy distribution and use.

This comprehensive textbook presents an overview of petroleum geoscience for geologists active in the petroleum industry, while also offering a useful guide for students interested in environmental geology, engineering geology and other aspects of sedimentary geology. In this second edition, new chapters have been added and others expanded, covering geophysical methods in general and electromagnetic exploration methods in particular, as well as reservoir modeling and production, unconventional resources and practical petroleum exploration.

This book is about the mechanisms of wealth creation, or what we like to think of as evolutionary "progress." The massive circular flow of goods and services between producers and consumers is not a perpetual motion machine; it has been dependent for the past 150 years on energy inputs from a finite storage of fossil fuels. In

this book, you will learn about the three key requirements for wealth creation, and how this process acts according to physical laws, and usually after some part of the natural wealth of the planet has been exploited in an episode of "creative destruction." Knowledge and natural capital, particularly energy, will interact to power the human wealth engine in the future as it has in the past. Will it sputter or continue along the path of evolutionary progress that we have come to expect? Can the new immaterial wealth of information and ideas, which makes up the so-called knowledge economy, replace depleted natural wealth? These questions have no simple answers, but this masterful book will help you to understand the grand challenge of our time. Praise for *Energy, Complexity and Wealth Maximization*: "... people who run the modern world (politicians, economists and lawyers) have a very poor grasp of how it really works because they do not understand the fundamentals of energy, exergy and entropy ... those decision-makers would greatly benefit from reading this book ..." - Vaclav Smil, Distinguished Professor Emeritus, University of Manitoba "... A grandiose design; impressive, worth reading and reflecting!" - Prof. Dr. Ernst Ulrich von Weizäcker, Founder of Wuppertal Institute; Co-President of the Club of Rome, Former Member of the German Bundestag, co-chair of the UN's Resource Panel "... The book is a must read for concerned citizens and decision makers across the globe." - RK Pachauri, Founder and Executive Vice Chairman, The Energy and Resources Institute (TERI) and ex-chair, International Panel on Climate Change

The growth and development witnessed today in modern science, engineering, and technology owes a heavy debt to the rare, refractory, and reactive metals group, of which niobium is a member. Extractive Metallurgy of Niobium presents a vivid account of the metal through its comprehensive discussions of properties and applications, resources and resource processing, chemical processing and compound preparation, metal extraction, and refining and consolidation. Typical flow sheets adopted in some leading niobium-producing countries for the beneficiation of various niobium sources are presented, and various chemical processes for producing pure forms of niobium intermediates such as chloride, fluoride, and oxide are discussed. The book also explains how to liberate the metal from its intermediates and describes the physico-chemical principles involved. It is an excellent reference for chemical metallurgists, hydrometallurgists, extraction and process metallurgists, and minerals processors. It is also valuable to a wide variety of scientists, engineers, technologists, and students interested in the topic.

This book describes a pathway for sustainable phosphorus management via the Global Transdisciplinary Processes for Sustainable Phosphorus Management project (Global TraPs). Global TraPs is a multi-stakeholder forum in which scientists from a variety of disciplines join with key actors in practice to jointly identify critical questions and to articulate what new knowledge, technologies and policy processes are needed to ensure that future phosphorus use is

sustainable, improves food security and environmental quality and provides benefits for the poor. The book offers insight into economic scarcity and identifies options to improve efficiency and reduce environmental impacts of anthropogenic phosphorus flows at all stages of the supply and use chain.

'Refreshingly fluent narrative, brimming full of stories and metaphors' Tim O'Riordan, University of East Anglia, UK

'A great balance between storytelling and analysis which points to the critical need for gaining control over resources' Jacqueline Ashby, CIAT, Colombia

'Full of supporting evidence and clear arguments' Norman

Uphoff, Cornell University, US

'A wonderful book, put together with such vision and passion' Mark Ritchie,

Institute of Agriculture and Trade Policy, US

'A superb volume. This is a valuable monograph that all policy-

makers, scholars and farmers must read to understand

their roles and responsibilities' Vo-Tong Xuan, Angiang

University, Vietnam

'Beautifully written. The implications

of the book's ideas are deep and extensive' Julia

Guivant, University of Florianopolis, Brazil

Something is wrong with our agricultural and food systems. Despite

great progress in increasing productivity in recent

decades, hundreds of millions of people remain hungry

and malnourished, and further millions suffer for eating

too much food or the wrong sort. Agri-Culture envisages

the expansion of a new form of food production and

consumption founded on more ecological principles and

in harmony with the cultures, knowledges and collective

capacities of the producers themselves. It draws on

many stories of successful agricultural transformation in

developing and industrialized countries, but with a warning that true prosperity will depend on the radical reform of the institutions and policies that control global food futures, and fundamental changes in the way we think. The time has come for the next agricultural revolution.

This book is a printed edition of the Special Issue "Hillslope and Watershed Hydrology" that was published in *Water*

This volume of the EMU Notes in Mineralogy is one of the outcomes of a school in planetary mineralogy that was held in Glasgow, Scotland, in 2014. The school was inspired by the recent advances in our understanding of the nature and evolution of our Solar System that have come from the missions to study and sample asteroids and comets, and the very successful Mars orbiters and landers. At the same time our horizons have expanded greatly with the discovery of extrasolar protoplanetary disks, planets and planetary systems by space telescopes. The continued success of such telescopic and robotic exploration requires a supply of highly skilled people and so one of the goals of the Glasgow school was to help build a community of early-career planetary scientists and space engineers.

Two key long-term energy trends are shifting the strategic balance between the United States and China, the world's superpower rivals in the 21st century: first, a domestic boom in U.S. shale oil and gas is dramatically boosting America's energy security; second, the frenetic and successful search for hydrocarbons in Africa is making it an increasingly crucial element in China's energy diversification strategy. America's increasing energy security and China's increased

dependence on energy imports from Africa and the Middle East until well past 2040 despite its own shale discoveries will make Beijing's own increasing energy insecurity be felt even more acutely, pushing the People's Liberation Army to accelerate adoption of a "two ocean" military strategy that includes an enduring presence in the Indian Ocean as well as the Pacific Ocean.

A concise introduction to key computing skills for biologists While biological data continues to grow exponentially in size and quality, many of today's biologists are not trained adequately in the computing skills necessary for leveraging this information deluge. In *Computing Skills for Biologists*, Stefano Allesina and Madlen Wilmes present a valuable toolbox for the effective analysis of biological data. Based on the authors' experiences teaching scientific computing at the University of Chicago, this textbook emphasizes the automation of repetitive tasks and the construction of pipelines for data organization, analysis, visualization, and publication. Stressing practice rather than theory, the book's examples and exercises are drawn from actual biological data and solve cogent problems spanning the entire breadth of biological disciplines, including ecology, genetics, microbiology, and molecular biology. Beginners will benefit from the many examples explained step-by-step, while more seasoned researchers will learn how to combine tools to make biological data analysis robust and reproducible. The book uses free software and code that can be run on any platform. *Computing Skills for Biologists* is ideal for scientists wanting to improve their technical skills and instructors looking to teach the main computing tools essential for biology research in the twenty-first century. Excellent resource for acquiring comprehensive computing skills Both novice and experienced scientists will increase efficiency by building automated and reproducible pipelines for biological

data analysis Code examples based on published data spanning the breadth of biological disciplines Detailed solutions provided for exercises in each chapter Extensive companion website

The social cost of carbon (SC-CO<sub>2</sub>) is an economic metric intended to provide a comprehensive estimate of the net damages - that is, the monetized value of the net impacts, both negative and positive - from the global climate change that results from a small (1-metric ton) increase in carbon-dioxide (CO<sub>2</sub>) emissions. Under Executive Orders regarding regulatory impact analysis and as required by a court ruling, the U.S. government has since 2008 used estimates of the SC-CO<sub>2</sub> in federal rulemakings to value the costs and benefits associated with changes in CO<sub>2</sub> emissions. In 2010, the Interagency Working Group on the Social Cost of Greenhouse Gases (IWG) developed a methodology for estimating the SC-CO<sub>2</sub> across a range of assumptions about future socioeconomic and physical earth systems. Valuing Climate Changes examines potential approaches, along with their relative merits and challenges, for a comprehensive update to the current methodology. This publication also recommends near- and longer-term research priorities to ensure that the SC- CO<sub>2</sub> estimates reflect the best available science.

Essentials of Offshore Structures: Framed and Gravity Platforms examines the engineering ideas and offshore drilling platforms for exploration and production. This book offers a clear and acceptable demonstration of both the theory and application of the relevant procedures of structural, fluid, and geotechnical mechanics to offshore structures. It

Nuclear forensics is the science of determining the history of a sample of radioactive material through the study of the material's characteristics. While nuclear forensic analysis has

normally been associated with investigations and prosecutions in the context of trafficking of nuclear materials or nuclear terrorism, it has wider applications in various national security contexts, such as nuclear non-proliferation, disarmament, and arms control. The New Nuclear Forensics provides a survey and an analysis of the scientific discipline of nuclear forensic analysis, and the way it is applied to specific issues of international peace and security, from the 1940s to the present day. This book describes the various methods used in nuclear forensics, giving first a general introduction to the process followed by details of relevant measurement techniques and procedures. In each case, the advantages and limitations are outlined. It uses a language and methodology that opens the issue of nuclear forensics and its potential applications to a non-specialist readership. The explosion on 26 April 1986 at the Chernobyl nuclear power plant and the consequent reactor fire resulted in an unprecedented release of radioactive material from a nuclear reactor and adverse consequences for the public and the environment. Although the accident occurred nearly two decades ago, controversy still surrounds the real impact of the disaster. Therefore the IAEA, in cooperation with other UN bodies, the World Bank, as well as the competent authorities of Belarus, the Russian Federation and Ukraine, established the Chernobyl Forum in 2003. The mission of the Forum was to generate 'authoritative consensual statements' on the environmental consequences and health effects attributable to radiation exposure arising from the accident as well as to provide advice on environmental remediation and special health care programmes, and to suggest areas in which further research is required. This report presents the findings and recommendations of the Chernobyl Forum concerning the environmental effects of the Chernobyl accident.

Baseline study describing the fish and wildlife resources of the Arctic Refuge in northeastern Alaska. Develops guidelines to monitor oil and gas exploration in the area as well as estimating the volume and areal extent of potential hydrocarbon resources. The area includes the calving grounds of the porcupine caribou herd.

This book is a printed edition of the Special Issue "Dietary Supplements" that was published in *Nutrients*

[Copyright: 0f7fdb0742f1fb8d0e364a67e6523fe](https://doi.org/10.3390/nutrients10071074)