

Life & Earth Sciences

May to August 2021



Subject: Agriculture

ACSESS

No Image
Available**Approaches to Soil Health Analysis, Volume 1**Douglas L. Karlen, Diane E. Stott, Maysoon Mikha
9780891189800, 0891189807

Pub Date: 8/10/21

\$60.00 USD

250 pages

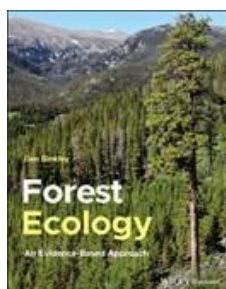
Paperback

Technology & Engineering / Agriculture /

Agronomy

Summary: Volume 1 briefly reviews selected "Approaches to Soil Health Analysis" including a brief history of the concept, challenges and opportunities, meta-data and assessment, applications to forestry and urban land reclamation, and future soil health monitoring and evaluation approaches.

Wiley-Blackwell

**Forest Ecology : An Evidence-Based Approach**

Dan Binkley

9781119703204, 1119703204

Pub Date: 9/27/21

\$80.00 USD

452 pages

Paperback

Nature / Plants / Trees

Summary: Forest ecology is the science that deals with everything in forests, including plants and animals (and their interactions), the features of the environment that affect plants and animals, and the interactions of humans and forests. All of these components of forests interact across scales of space and time. Some interactions are constrained, deterministic, and predictable; but most are indeterminant, contingent, and only broadly predictable.

Forest Ecology: An Evidence-Based Approach examines the features common to all forests, and those unique cases that illustrate the importance of site-specific factors in determining the structure, function, and future of a forest.

ACSESS

No Image
Available**Laboratory Methods for Soil Health Analysis, Volume 2**Diane E. Stott, Douglas L. Karlen, Maysoon Mikha
9780891189824, 0891189823

Pub Date: 8/10/21

\$60.00 USD

250 pages

Paperback

Technology & Engineering / Agriculture /

Agronomy

Summary: Volume 2 focuses on "Laboratory Methods for Soil Health Analysis" including an overview and suggested analytical approaches intended to provide meaningful, comparable data so that soil health can be used to guide restoration and protection of our global soil resources.

Subject: Earth Science

Wiley

No Image
Available**Active Source Seismic Tomography : Theory and Applications**

Kalachand Sain, Damodara Nara

9781119594864, 1119594863

Pub Date: 9/15/21

\$199.95 USD

300 pages

Hardcover

Science / Physics / Geophysics

Summary: Imaging complex regions or difficult terrains like the sub-volcanic sediments or thrust fold belt areas is crucial to understanding the earth's subsurface. *Seismic Tomography: Theory and Application* delineates accurate seismic velocities and finer details of the subsurface, which can be further utilized in understanding migration techniques in structural traps through images. Improved images provide useful input for reservoir characterization, identification of faults and channels, and stratigraphic and structural traps.

Volume highlights include:

State-of-the-art studies on theory and development in

Wiley-Blackwell



Applied Multidimensional Geological Modeling

A Keith Turner, Michiel Van der Meulen, Holger Kes...

9781119163121, 1119163129

Pub Date: 7/6/21

\$123.95 USD

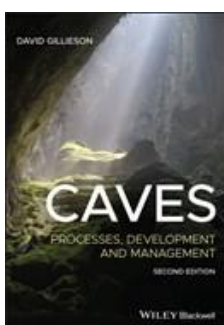
672 pages

Hardcover

Science / Earth Sciences / Geology

Summary: Over the past decades, geological survey organizations have digitized their data handling and holdings, unlocking vast amounts of data and information for computer processing. They have undertaken 3-D modeling alongside, and in some cases instead of, conventional geological mapping and begun delivering both data and interpretations to increasingly diverse stakeholder communities. *Applied Multidimensional Geological Modeling* provides a citable central source that documents the current capabilities and contributions of leading geological survey organization and other practitioners in industry and academia that are producing multidimensional geological models.

Wiley-Blackwell



Caves : Processes, Development, and Management (2nd Edition)

David Gillieson

9781119455578, 111945557X

Pub Date: 6/28/21

\$65.00 USD

512 pages

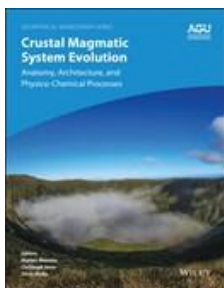
Paperback

Science / Earth Sciences / Geology

Summary:

People have been interested in caves for a very long time. Our distant ancestors used them for shelter, as sources of water, and as places in which to conduct essential rituals. They adorned their walls with quite sophisticated artwork depicting both their existential and spiritual concerns. Caves feature in our mythology, they are used as places of worship in many cultures, and they are used throughout the world as places in which to store prized foodstuffs and wine. For at least two hundred years they have attracted scientists, artists, photographers, and recreational cavers. This book aims examines how caves form, the light they shed on past environments and climates, and the val...

American Geophysical Union



Crustal Magmatic System Evolution: Anatomy, Architecture, and Physico-Chemical Processes

Matteo Masotta, Christoph Beier, Silvio Mollo

9781119564454, 111956445X

Pub Date: 6/16/21

\$199.95 USD

263 pages

Hardcover

Science / Earth Sciences / Geology

Summary: A comprehensive picture of the architecture of crustal magmatic systems

The composition of igneous rocks – their minerals, melts, and fluids – reveals the physical and chemical conditions under which magmas form, evolve, interact, and move from the Earth's mantle through the crust. These magma dynamics affect processes on the surface including crustal growth and eruptive behaviour of volcanoes.

Crustal Magmatic System Evolution: Anatomy, Architecture, and Physico-Chemical Processes uses analytical, experimental, and numerical approaches to explore the

American Geophysical Union



Python for Remote Sensing Applications in Earth Science : A Practical Programming Guide

Rebekah B. Esmaili

9781119606888, 1119606888

Pub Date: 7/14/21

\$169.95 USD

272 pages

Hardcover

Science / Earth Sciences / Meteorology & Climatology

Summary: Learn basic Python programming to create functional and effective visualizations from earth observation satellite data sets

Thousands of satellite datasets are freely available online, but scientists need the right tools to efficiently analyze data and share results. Python has easy-to-learn syntax and thousands of libraries to perform common Earth science programming tasks.

Earth Observation Using Python: A Practical Programming Guide presents an example-driven collection of basic methods, applications, and visualizations to process satellite

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Engineering Physics of High Temperature Materials : Metals, Ice, Rocks and Ceramics

Nirmal K. Sinha, Paul D. Barrette

9781119420484, 1119420482

Pub Date: 10/19/21

\$189.95 USD

300 pages

Hardcover

Technology & Engineering / Materials Science

Summary: *Engineering Physics of High Temperature Materials: Metals, Ice, Rocks and Ceramics* addresses an issue that is universally acknowledged and documented - that is, what causes a material to deform and fail at high temperatures and, more importantly, what are the mechanisms involved in the deformation processes leading to failure. This applies to ice, glass, ceramics, rocks and complex high-temperature alloys, including single crystals, used in gas-turbine engines.

Volume highlights include:

- Experimental and theoretical studies on temperature-

American Geophysical Union

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Global Drought and Flood : Monitoring, Prediction, and Adaptation

Huan Wu, Dennis P. Lettenmaier, Quihong Tang, Phil...

9781119427308, 1119427304

Pub Date: 7/7/21

\$199.95 USD

368 pages

Hardcover

Science / Earth Sciences / Geology

Summary: Recent advances in the modeling and remote sensing of droughts and floods

Droughts and floods are causing increasing damage worldwide, often with devastating short- and long-term impacts on human society. Forecasting when they will occur, monitoring them as they develop, and learning from the past to improve disaster management is vital.

Global Drought and Flood: Observation, Modeling, and Prediction presents recent advances in the modeling and remote sensing of droughts and floods. It also describes the techniques and products currently available and how they are

Wiley-Blackwell

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Groundwater Geochemistry : Pollution and Remediation Methods

Sughosh Madhav, Pardeep Singh

9781119709695, 1119709695

Pub Date: 7/26/21

\$200.00 USD

400 pages

Hardcover

Technology & Engineering / Environmental / Water Supply

Summary: This book contains both practical and theoretical aspects of groundwater resources relating to geochemistry. Focusing on recent research in groundwater resources, this book helps readers to understand the hydrogeochemistry of groundwater resources. Dealing primarily with the sources of ions in groundwater, the book describes geogenic and anthropogenic input of ions into water. Different organic, inorganic and emerging contamination and salinity problems are described, along with pollution-related issues affecting groundwater. New trends in groundwater contamination remediation measures are included, which will be particularly useful to researchers working in the field of water conse...

Wiley-Blackwell

Handbook of Catchment Management (2nd Edition)

Robert C. Ferrier, Alan Jenkins

9781119531227, 1119531225

Pub Date: 7/26/21

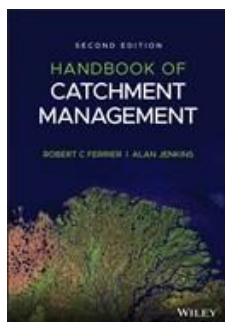
\$175.00 USD

560 pages

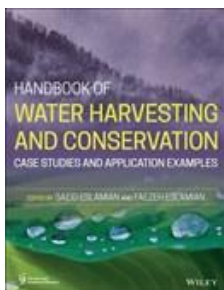
Hardcover

Science / Earth Sciences / Hydrology

Summary: In 2010, the *Handbook of Catchment Management* provided a benchmark on how our understanding and actions in water management within a catchment context had evolved in recent decades. Ten years on, the catchment management concept is entering a new phase of development aligned to contemporary and future challenges. These include climate change uncertainty, further understanding in ecological functioning under change, the drive for a low-carbon, energy efficient and circular society, multiple uses of water, the emergence of new pollutants of concern, new approaches to valuation, finance and pricing mechanisms, stewardship and community engagement, the integration of water across the Su



Wiley-Blackwell



Handbook of Water Harvesting and Conservation : Case Studies and Application Examples (2nd Edition)

Saeid Eslamian, Faezeh Eslamian

9781119775980, 1119775981

Pub Date: 6/14/21

\$155.00 USD

552 pages

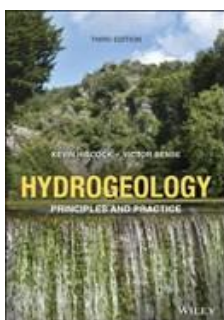
Hardcover

Technology & Engineering / Environmental / Water Supply

Summary: Water harvesting is gaining more and more recognition as the sustainable and resilient alternative to other water supply options. It is economically viable, socially compatible and environmentally friendly. Water harvesting has proven to be a robust solution to overcome or reduce water shortages all over the world. To apply this in a sustainable and effective way, it is important to understand exactly where it can be applied to make full use of its potential.

The Handbook of Water Harvesting and Conservation: Case Studies and Application Examples is the most comprehensive, up-to-date and applied casebook on water

Wiley-Blackwell



Hydrogeology : Principles and Practice (3rd Edition)

Kevin M. Hiscock, Victor F. Bense

9781119569534, 1119569532

Pub Date: 9/20/21

\$95.00 USD

600 pages

Paperback

Technology & Engineering / Environmental / Water Supply

No Image
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Investigating Fossils : A History of Palaeontology

Wilson J. Wall

9781119698456, 1119698456

Pub Date: 8/16/21

\$45.00 USD

256 pages

Paperback

Science / Paleontology

Summary:

Investigating Fossils – A History of Palaeontology is a concise and accessible look at changing attitudes to palaeontology in general, and fossils in particular. From the existential and philosophical debates arising from fossils – such as their implications for the age of the Earth – to their role as markers in Darwin's theory of evolution, fossils have been the centre of highly charged debate for over two centuries.

This book, which is aimed at anyone with an interest in the history and philosophy of science, not only describes the process of fossil formation and the history of the discovery of fossils. It goes further,

Wiley-Blackwell

American Geophysical Union

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Magma Redox Geochemistry

Roberto Moretti, Daniel Neuville

9781119473251, 111947325X

Pub Date: 8/24/21

\$229.95 USD

432 pages

Hardcover

Science / Physics / Geophysics

Summary: Explores the many facets of redox exchanges that drive magma's behavior and evolution, from the origin of the Earth until today

The redox state is one of the master variables behind the Earth's forming processes, which at depth concern magma as the major transport agent. Understanding redox exchanges in magmas is pivotal for reconstructing the history and compositional make-up of our planet, for exploring its mineral resources, and for monitoring and forecasting volcanic activity.

Magma Redox Geochemistry describes the multiple facets of

American Geophysical Union

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Mantle Convection and Surface Expressions

Hauke Marquardt, Maxim Ballmer, Sanne Cottaar, Jas...

9781119528616, 1119528615

Pub Date: 7/14/21

\$199.95 USD

544 pages

Hardcover

Science / Physics / Geophysics

Summary: A multidisciplinary perspective on the dynamic processes occurring in Earth's mantle

The convective motion of material in Earth's mantle, powered by heat from the deep interior of our planet, drives plate tectonics at the surface, generating earthquakes and volcanic activity. It shapes our familiar surface landscapes, and also stabilizes the oceans and atmosphere on geologic timescales.

Mantle Convection and Surface Expressions brings together perspectives from observational geophysics, numerical modelling, geochemistry, and mineral physics to build a holistic picture of the deep Earth. It explores the dynamic

Wiley-Blackwell

Reconstructing Earth's Climate History : Inquiry-Based Exercises for Lab and Class (2nd Edition)

Kristen St. John

9781119544111, 1119544114

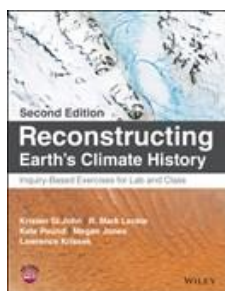
Pub Date: 8/23/21

\$95.00 USD

576 pages

Paperback

Science / Earth Sciences / Meteorology & Climatology



Summary: There has never been a more critical time for students to understand the record of Earth's climate history, as well as the relevance of that history to understanding Earth's present and likely future climate. There also has never been a more critical time for students, as well as the public-at-large, to understand how we know, as much as what we know, in science. This book addresses these needs by placing you, the student, at the center of learning. In this book, you will actively use inquiry-based explorations of authentic scientific data to develop skills that are essential in all disciplines: making observations, developing and testing hypotheses, reaching conclusions based on th...

American Geophysical Union

The Physics of Earth Remote Sensing

Rick Chapman, Richard Gasparovic

9781119669074, 1119669073

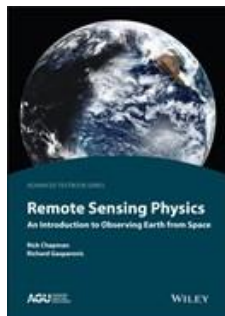
Pub Date: 10/12/21

\$119.95 USD

534 pages

Paperback

Science / Physics / Geophysics

**Summary: An introduction to the physical principles underlying Earth remote sensing**

The development of spaceborne remote sensing technology has led to a new understanding of the complexity of our planet by allowing us to observe Earth and its environments on spatial and temporal scales that are unavailable to terrestrial sensors.

Remote Sensing Physics: An Introduction to Observing Earth from Space is a graduate-level text that examines the underlying physical principles and techniques used to make remote measurements, along with the algorithms used to

Wiley-Blackwell

Seismic Reservoir Modeling : Theory, Examples, and Algorithms

Dario Grana

9781119086185, 1119086183

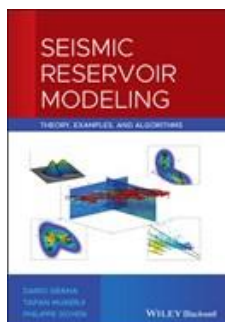
Pub Date: 6/14/21

\$165.00 USD

272 pages

Hardcover

Science / Earth Sciences / Geology



Summary: Seismic reservoir characterization aims to build 3-dimensional models of rock and fluid properties, including elastic and petrophysical variables, to describe and monitor the state of the subsurface for hydrocarbon exploration and production and for CO₂ sequestration. Rock physics modeling and seismic wave propagation theory provide a set of physical equations to predict the seismic response of subsurface rocks based on their elastic and petrophysical properties. However, the rock and fluid properties are generally unknown and surface geophysical measurements are often the only available data to constrain reservoir models far away from well control. Therefore, reservoir properties a

Wiley-Blackwell

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Selenium Contamination in Water

Pooja Devi, Pardeep Singh, Arindam Malakar, Daniel...

9781119693451, 1119693454

Pub Date: 7/6/21

\$190.00 USD

432 pages

Hardcover

Technology & Engineering / Environmental / Water Supply

Summary: The contamination of environment and water resources by Selenium (Se) and its oxyanions from various sources are emerging contaminants of significant health and environmental concern. The primary sources include agricultural drainage water, mine drainage, residues from fossil fuels, thermoelectric power plants, oil refineries, and metal ores. Various methods and technologies have been developed which focus on the treatment of selenium-containing waters and wastewater. High concentrations of selenium in water cause various adverse impact to human health, such as carcinogenic, genotoxic, and cytotoxic effects. But in the lower concentrations, it is a useful constituent of the biologic

For Dummies

**Weather For Dummies (2nd Edition)**

John D. Cox

9781119811008, 1119811007

Pub Date: 8/24/21

\$24.99 USD

416 pages

Paperback

Nature / Weather

Summary: GET YOUR HEAD IN THE CLOUDS!

Weather For Dummies 2e will take you on an exciting journey through the Earth's atmosphere. Understand rain, sun, clouds, weather catastrophes and more! Use photographs and illustrations to easily visualize weather concepts and translate them into real-world knowledge. Have fun with at-home weather experiments sure to fascinate the scientist within us all.

UPDATES:

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Subject: Environmental Studies

For Dummies

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Climate Change For Dummies

Consumer Dummies

9781119703105, 1119703107

Pub Date: 12/2/21

\$24.99 USD

352 pages

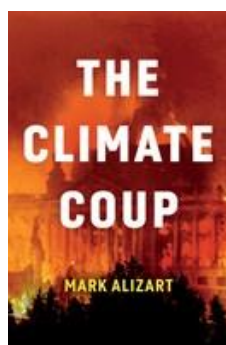
Paperback

Science / Global Warming & Climate Change

Summary: Master the hottest—and most chilling—topic in the world today

More and more frequent extreme weather events occur each year, and wildlife everywhere is increasingly endangered. Science fiction or science fact, most climate experts see this as our world on climate change—and, according to polls, a majority of people around the globe agree. *Climate Change For Dummies* allows you to investigate this hottest of hotly debated issues for yourself—examining its causes, the way it affects our lives, and what we can all do to make a difference.

Polity

**The Climate Coup**

Mark Alizart

9781509546145, 1509546146

Pub Date: 8/30/21

\$12.95 USD

120 pages

Paperback

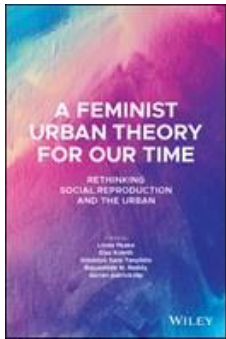
Political Science / Public Policy / Environmental Policy

Summary: Inaction by governments in the face of climate change is often attributed to a lack of political will or a denial of the seriousness of the situation, but as Mark Alizart argues in this provocative book, we shouldn't exclude the possibility that part of the reluctance might be motivated by cynicism and even sheer evil: for some people, there are real financial and political benefits to be gained from the chaos that will ensue from environmental disaster.

When states not only allow their forests to burn but call for them to be set on fire, when they not only ignore the Paris Agreement but tear it up in public, when they aren't satisfied with doubting scientists but also seek to inti...

Subject: Geography

Wiley


A Feminist Urban Theory for Our Time : Rethinking Social Reproduction and the Urban

Linda Peake, Elsa Koleth, Gokboru Sarp Tanyildiz,
...

9781119789154, 111978915X

Pub Date: 7/26/21

\$34.95 USD

320 pages

Paperback

Social Science / Sociology / Urban

Summary: What does a feminist urban theory look like for the twenty first century? This book puts knowledges of feminist urban scholars, feminist scholars of social reproduction, and other urban theorists into conversation to propose an approach to the urban that recognises social reproduction both as foundational to urban transformations and as a methodological entry-point for urban studies.

- Offers an approach feminist urban theory that remains intentionally cautious of universal uses of social reproduction theory, instead focusing analytical attention on historical contingency and social difference
- Eleven chapters that collectively address distinct

Polity


Seven Ethics Against Capitalism : Towards a Planetary Commons

Oli Mould

9781509545964, 1509545964

Pub Date: 9/7/21

\$22.95 USD

156 pages

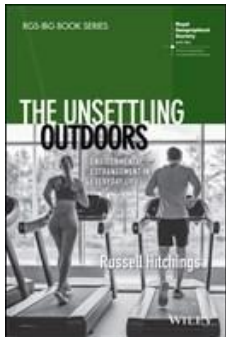
Paperback

Social Science / Human Geography

Summary: Capitalism has become so dominant that it is difficult to ever imagine a world in which its injustices and inequalities are not violently present. In this ambitious and compelling book, Oli Mould turns his diagnosis of capitalism's perversions towards defining the new set of ethics we need to succeed in organizing a more just society.

In the wake of the coronavirus pandemic, capitalism has been rocked to its foundations and 'the commons' as a means of providing for all people in our world has come crashing into the foreground. However, in order for the commons to be a viable alternative to the injustices of capitalism, it needs to be grown to a planetary scale. This is

Wiley


The Unsettling Outdoors : Environmental Estrangement in Everyday Life

Russell Hitchings

9781119549154, 1119549159

Pub Date: 8/30/21

\$39.95 USD

256 pages

Paperback

Science / Environmental Science

Summary: How is it that, in the course of everyday life, people are drawn away from greenspace experiences that are often good for them? By attending to the apparently idle talk of those who are living them out, this book shows us why we should attend to the processes involved.

- Develops an original perspective on how greenspace benefits are promoted
- Shows how greenspace experiences can unsettle the practices of everyday life
- Draws on several years of field research and over 180 interviews