Chemical Vapour Deposition of Diamond for Dental Tools and Burrs

This volume presents chemical vapour deposition of diamond films for application in cutting tools, microdrills, dental burs and surgical tools. It examines various deposition techniques, discusses mechanisms of diamond growth and their impact on cutting tool life and performance.

Features
- Presents chemical vapour deposition of diamond films for application in cutting tools, microdrills, dental burs and surgical tools

Contents
Chemical vapour deposition processes, characterization of diamond coatings and applications. - Dental tools; geometry; diamond burs; tooth material & cutting processes; environment. - Experimental procedures; materials; and process conditions. [...] 

Fields of interest
Tribology, Corrosion and Coatings; Biomedical Engineering; Manufacturing, Machines, Tools

Target groups
Research

Product category
Brief

Ferroelectric Crystals for Photonic Applications

Including Nanoscale Fabrication and Characterization Techniques

Features
- Features basic research and hot topics applications from photonics bandgap based devices
- Presents the latest non-linear optics paradigm of Quasi-Phase-Matching interactions, generation of THz radiation and wavefront manipulation
- Represents a state-of-the-art report of materials research and applications of ferroelectric-crystals-based devices in photonics
- Combines basic research of magnetic materials with device and production orientation

Contents

Fields of interest
Optical and Electronic Materials; Laser Technology; Photonics; Microwaves, RF and Optical Engineering

Target groups
Research

Product category
Monograph

Due November 2013
2nd ed. 2014. XX, 500 p. 297 illus., 41 in color. (Springer Series in Materials Science, Volume 91) Hardcover
- * € (D) 139,09 | € (A) 142,99 | sFr 173,50
- € 129,99 | £117.00
ISBN 978-3-642-41085-7

V. Fridkin, Institute of Crystallography, Moscow, Russia; S. Ducharme, University of Nebraska-Lincoln, Lincoln, NE, USA

Ferroelectricity at the Nanoscale

Basics and Applications

The investigation of nanosized ferroelectric films and ferroelectric nanocrystals has attracted much attention during the past 15 – 20 years. There is interest in the fundamental and applied aspects. The theoretical basis is connected with the development of the Landau-Ginzburg-Devonshire (LGD) mean field and the first principles theories to the ultrathin ferroelectric films with thickness in the vicinity of critical size. Important potential applications are possible nanosize ferroelectric films in non-volatile memories, microelectronics, sensors, pyroelectric and electro-optic devices.

Features
- Gives an up-to-date overview of ferroelectric nanosized films
- Explains the theoretical background of ultrathin ferroelectric films
- Presents applications of ferroelectric materials
- Displays the mechanism of switching of nanosized ferroelectric films

Contents
Mean-field theory (LGD) for ferroelectric films at the nanoscale. - Critical thickness from the mean-field theory (LGD) and from the first principles. - Size effect at the nanoscale. - Polymeric ferroelectric Langmuir-Blodgett films (vinylidene fluoride trifluoroethylene type). - Epitaxial ferroelectric films with perovskite structure. - Homogeneous non-domain switching in the ferroelectric films at the nanoscale. - Possible application of the ferroelectric films at the nanoscale.

Fields of interest
Surfaces and Interfaces, Thin Films; Magnetism, Magnetic Materials; Nanotechnology and Micro-engineering

Target groups
Research

Product category
Monograph

Due November 2013
2nd ed. 2014. XI, 73 p. 81 illus., 8 in color. (NanoScience and Technology) Hardcover
- * € (D) 139,09 | € (A) 142,99 | sFr 173,50
- € 129,99 | £117.00
ISBN 978-3-642-41006-2
Hemoglobin-Based Oxygen Carriers as Red Cell Substitutes

Currently, hemoglobin (Hb)-based oxygen carriers (HBOCs) are leading candidates as red blood cell substitutes. In addition, HBOCs are also potential oxygen therapeutics for treatment of patients with critical ischemic conditions due to atherosclerosis, diabetes and other conditions.

Features

- Focus on Hemoglobin-based oxygen carriers (HBOCs)
- Up to date information on progress of existing products, new emerging products/technologies
- In-depth treatise covering rationale, scientific and clinical basis, ideal characteristics of HBOCs, approaches to HBOC products, scale up and manufacturing, preclinical and clinical studies for safety and efficacy evaluations, current challenges and future directions

Contents

Brief historical account of HBOC development.- Physiology of respiration.- Oxygen transport to tissues.- Pathophysiology of acute anemia.- Global blood safety and need for safe blood supply.- Blood transfusion and its limitations.- Scientific basis and design of HBOCs. - HBOCs: a regulatory perspective.- Current HBOC products in development.- Clinical indications and clinical trials of HBOCs.- HBOCs and adverse events observed in clinical trials.- HBOC-mediated vasoactivity and hypertension.- HBOC and oxygen and nitrogen radical mediated toxicity.- HBOCs and clinical laboratory interference.- Animal models for HBOC studies.- New emerging Technologies for universal RBCs.- Future prospects.

Fields of interest
Biometrics; Molecular Medicine; Medicinal Chemistry

Target groups
Research

Product category
Monograph

Magnesium Biomaterials

Design, Testing, and Best Practice

Magnesium Biomaterials provides a succinct up-to-date overview of magnesium biomaterial development, critically examines the types of in vitro experiments that may be performed, and investigates the numerous variables that affect magnesium biodegradation when undertaking these experiments. This work also discusses the direction in which current magnesium biomaterial development is heading and the necessary steps for future development of this field. Information is drawn from numerous multi-disciplinary sources to provide a coherent and critical overview.

Features

- Covers best-practice values for experiments on Magnesium biomaterials
- Provides the critical background needed for a strong understanding of Bio-Magnesium
- Serves as an inclusive resource for Magnesium biocorrosion performance, providing the most detailed descriptions of current tests available
- Presents various corrosion techniques that have been developed over years of experience, investigation, mistakes and successes, providing an initial standard for all future investigations into the biodegradable qualities of Mg

Contents

Introduction to magnesium biomaterials.- Magnesium biocorrosion experiments.- Influence of experimental variables on in vitro performance.- Developments in Mg-based alloys for biomaterials.- Summary and concluding remarks.

Fields of interest
Biometrics; Biomedical Engineering; Regenerative Medicine/Tissue Engineering

Target groups
Research

Product category
Brief

Novel Synthesis and Characterization of Nanostructured Materials

Nanostructured materials have been largely studied in the last few years. They have great potential of applications in different fields such as materials science, physics, chemistry, biology, mechanic and medicine. Synthesis and characterization of nanostructured materials is a subject of great interest involving science, market, politicians, government and society. Based on results obtained by the authors’ research group during the past decade, this book comes to present novel techniques to synthesize nanostructured materials and characterize their properties such as crystallinity and crystallite size, specific surface area, particle size, morphology and catalytic activity. This book is aimed for students, researchers and engineers searching for methodologies to obtain and characterize nanostructures in details.

Features

- Present new methodologies for the characterization of nanostructures
- State-of-the-art useful for students in the field
- Presents research from the LACER Institute at UFRGS

Contents


Fields of interest
Characterization and Evaluation of Materials; Ceramics, Glass, Composites, Natural Materials; Nanoscale Science and Technology

Target groups
Research

Product category
Monograph
M. A. Maleque, International Islamic University, Kuala Lumpur, Malaysia

Materials Selection and Design

This book presents topics on the basics of materials selection and design which will give a better understanding on the selection methods and then find suitable materials for the applications. This book draws the simple and straightforward quantitative methods followed by knowledge-based expert system approach with real and tangible case studies to show how undergraduate or post-graduate students or engineers can apply their knowledge on materials selection and design. Topics discussed in this book contain special features such as illustration, tables, and tutorial questions for easy understanding. A few published books or documents are available, hence this book will be very useful for those who use (or want to use) materials selection approach without the advantages of having had comprehensive knowledge or expertise in this materials’ world.

Features
- Includes case studies that illustrate how to find most appropriate material (s) for a specific design and application
- Worked examples and tutorial questions are presented at the end of each chapter
- Includes a chapter on knowledge-based expert system (KBS) for the selection of appropriate materials for specified application

Contents

Fields of interest
- Characterization and Evaluation of Materials; Engineering Design; Operating Procedures, Materials Treatment

Target groups
- Professional/practitioner

Product category
- Brief

M. C. Roco, W. Bainbridge, National Science Foundation, Arlington, VA, USA; B. Tonn, University of Tennessee, Knoxville, TN, USA; G. Whitesides, Harvard University, Cambridge, MA, USA (Eds)

Poly(o-aminophenol) Film Electrodes

Synthesis, Transport Properties and Practical Applications

This review book is concerned with the synthesis, charge transport properties and practical applications of poly (o-aminophenol) (POAP) film electrodes. It is divided into three parts. The first one has a particular emphasis on problems of synthesis and structure of POAP. The second part deals with the mechanism of charge transfer and charge transport processes occurring in the course of the redox reactions of POAP. The third part describes the promising applications of POAP in the different fields of sensors, electrocatalysis, bioelectrochemistry, corrosion protection, among others.

Features
- Provides the wide range of practical applications of POAP
- Guides the understanding of the electrochemical behavior of POAP
- A complete review on POAP film electrodes

Contents
- Electropolymerization of o-aminophenol on different electrode materials and in different electrolyte media.
- Structure of electrochemically synthesized POAP films.
- Characterization by IR spectroscopy.
- Quartz Crystal Microbalance (QCM) measurements on POAP films electrodes.
- POAP film electrodes characterized by their morphology and thickness.
- Electrochromic properties of POAP film electrodes.

Fields of interest
- Surfaces and Interfaces, Thin Films; Electrochemistry; Characterization and Evaluation of Materials

Target groups
- Research

Product category
- Monograph

R. Tucceri, Physicochemical Research Institute of Theoretical and Applied (INIFTA), La Plata, Argentina

Due November 2013

2013. 125 p. 65 illus., 10 in color. (SpringerBriefs in Materials) Hardcover
- *€ (D) 53,49 | € (A) 54,99 | sFr 67,00
- approx. €49,99 | £44.99

Due November 2013

- *€ (D) 139,09 | € (A) 142,99 | sFr 173,50
- € 129,99 | £117.00
ISBN 978-3-319-02203-1

Due October 2013

2013. X, 244 p. 111 illus. (Engineering Materials) Hardcover
- *€ (D) 149,79 | € (A) 153,99 | sFr 186,50
- € 139,99 | £126.00
ISBN 978-3-319-02113-3

News 10/2013
Radiative Transfer Modeling

Physical Basis and Numerical Aspects

The textbook is devoted to the description of the light field formation in turbid media, such as atmosphere and ocean. By the light field is understood the description of the electromagnetic field propagation (transfer) in the ray approximation.

Features
► Complete coverage of all aspects of the theory of radiative transfer in turbid media ► Mathematics and physics only in the volume of the lower-division of university is required to master the book ► Includes a single physical approach to the analysis of radiative transfer, as the description of the electromagnetic wave propagation in the ray approximation.

Contents
Physical basis of radiative transfer theory. - The structure of the light field inside turbid media. - Basic properties of radiative transfer equation solutions. - Small angle approximation (SAA). - Discrete transfer theory. - Boundary conditions. - Effect of hardware and software to implement the algorithms of radiative transfer theory. - Three dimensional radiative transfer. - Inverse problem of radiative transfer. [...]

Fields of interest
Atmospheric Sciences; Optics and Electrodynamics; Monitoring/Environmental Analysis

Target groups
Research

Product category
Monograph

Introduction to Modern Fortran for Earth System Sciences

This work provides a short “getting started” guide to Fortran 90/95. The main target audience consists of newcomers to the field of numerical computation within Earth system sciences (students, researchers or scientific programmers). Furthermore, readers accustomed to other programming languages may also benefit from this work, by discovering how some programming techniques they are familiar with map to Fortran 95. The main goal is to enable readers to quickly start using Fortran 95 for writing useful programs. It also introduces a gradual discussion of Input/Output facilities relevant for Earth system sciences, from the simplest ones to the more advanced netCDF library (which has become a de facto standard for handling the massive datasets used within Earth system sciences). While related works already treat these disciplines separately (each often providing much more information than needed by the beginning practitioner), the reader finds in this book a shorter guide which links them.

Features
► Written from a strongly applied perspective ► Describes more advanced Input/Output facilities (netCDF) than competing works, linked with numerical applications ► Concise introduction to Fortran 95 programming for the targeted reader.

Contents
General concepts. - Fortran Basics. - Elements of software-engineering. - Applications.

Fields of interest
Earth System Sciences; Programming Languages, Compilers, Interpreters; Numerical and Computational Physics

Target groups
Graduate

Product category
Brief

Weathering and the Riverine Denudation of Continents

In this monograph the authors present an overview of the state-of-the-art and use examples or case histories to illustrate the combined role of rock decay and rivers on continental denudation. The Earth’s surface dynamics would not be conceivable without the fundamental component of rock weathering and the subsequent transport of solid debris and dissolved components to the coastal ocean through riverine drainage pathways. In other words, continental wear away is highly dependent on the mechanisms that control mineral decay. Moreover, besides the significant role played by rivers in shaping the Earth’s outer skin, there is the important function that rivers perform in all geochemical cycles, mediating between the lithosphere, the hydrosphere, the biosphere and the hydrosphere.

Features
► Written by a world known expert in hydrological geochemistry ► Describes various aspects of the non organic and organic load of rivers to the oceans ► Details the effect of climatic change to the river load

Contents

Fields of interest
Hydrogeology; Biogeosciences; Geocology/Natural Processes

Target groups
Research

Product category
Brief
Evolution of Archean Crust and Early Life

Contents

Fields of interest
Geology; Structural Geology; Geochemistry

Target groups
Research

Product category
Monograph

Due November 2013
2014. I. 541 p. 255 illus., 80 in color. (Modern Approaches in Solid Earth Sciences, Volume 7)
Hardcover
➤ * € (D) 106,99 | € (A) 109,99 | sFr 133,50
➤ * € 99,99 | £90.00

Geodesy
Introduction to Geodetic Datum and Geodetic Systems
Geodetic datum (including coordinate datum, height datum, depth datum, gravimetry datum) and geodetic systems (including geodetic coordinate system, plane coordinate system, height system, gravimetry system) are the common foundations for every aspect of geomatics. This course book focuses on geodetic datum and geodetic systems, and describes the basic theories, techniques, methods of geodesy. The main themes include: the various techniques of geodetic data acquisition, geodetic datum and geodetic control networks, geoid and height systems, reference ellipsoid and geodetic coordinate systems, Gaussian projection and Gaussian plan coordinates and the establishment of geodetic coordinate systems.

Features
➤ Many special areas of geodesy are summarized by the well-known experts ➤ Presents geodetic datum and geodetic systems as the common foundations of geomatics ➤ Suitable as a basis for courses in geodesy and geomatics

Contents

Fields of interest
Geophysics/Geodesy; Geographical Information Systems/Cartography; Geophysics and Environmental Physics

Target groups
Upper undergraduate

Product category
Monograph

Due December 2013
2014. 300 p. 140 illus. Hardcover
➤ approx. * € (D) 106,95 | € (A) 109,95 | sFr 143,50
➤ approx. € 99,95 | £90.00
ISBN 978-3-642-41244-8

Monitoring and Prediction of Tropical Cyclones in the Indian Ocean and Climate Change

Features
➤ Book deals with latest state of art tools and technology for cyclone monitoring and prediction ➤ Latest advances in numerical weather prediction modelling for cyclone prediction in all space and time scales ➤ Provides latest trends in cyclone and climate change research and future scope ➤ Deals with impact of climate change on tropical cyclone activity ➤ Also deals with mitigation measures for tropical cyclone management

Contents
Status Report: Draft Second Assessment Report on Impacts of Climate Change on Tropical Cyclones in the Western North Pacific Basin.- Climate change and Southern Hemisphere tropical cyclones’ International Initiative - progress since the First International conference on Indian Ocean Tropical Cyclones and Climate Change.- Construction, archival and quality of best track parameters for study of climate change impact on tropical cyclones over the north Indian Ocean.- Climate Change in Tropical Cyclones and Monsoon Depressions of North Indian Ocean.- Mechanism of the Indian ocean tropical cyclone frequency changes due to global warming.- Association between total ozone, QBO, cyclonic storms and climate change.- Tropical cyclone and climate change in India.- On the variations in the genesis positions and propagation of the North Indian Ocean tropical Cyclones in a Changing Climate. [...]

Fields of interest
Oceanography; Meteorology; Natural Hazards

Target groups
Research

Product category
Monograph

Due October 2013
Jointly published with Capital Publishing Company, New Delhi, India

Distribution rights for SAARC countries: Capital Publishing Company, New Delhi, India

2014. 400 p. 140 illus., 40 in color. Hardcover
➤ approx. * € (D) 139,09 | € (A) 142,99 | sFr 173,50
➤ approx. € 129,99 | £117.00
ISBN 978-94-007-7719-4

Z. Lu, S. Qiao, Information Engineering University
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U. Mohanty, Indian Institute of Technology
Bhubaneswar, Bhubaneswar, India; M. Mohapatra,
Cyclone Warning Division, New Delhi, India;
O. Singh, B. Bandypadhyay, L. Rathore, India
Meteorological Department, New Delhi, India (Eds)
G. Orsi, Istituto Nazionale di Geofisica e Vulcanologia, Naples, Italy; L. Civetta, Università degli Studi di Napoli Federico, Naples, CA, USA; R. Moretti, Seconda Università degli Studi di Napoli, Aversa, Italy (Eds)

**Campi Flegrei**

The densely populated Campi Flegrei resurgent caldera is one of the widest known, best studied and highly dangerous volcanoes of the world. This monograph will synthesize the current knowledge of this volcano, through different review chapters. The book consists of about 15 chapters, each on a specific aspect, authored by well-recognized experts.

**Features**
- Exhaustive, rigorous and up-to-date scientific picture of a worldwide unique setting, renowned for its history, cultural heritage and hazards in a highly-populated area
- Suitable for wide range of academics (from graduate students to professors) as well for civil authorities, land planners and managers
- Richly illustrated, including 50 color images

**Contents**
Geological and structural setting and evolution.
- Geophysical structure
- Architecture and evolution of the magmatic feeding system
- Geochemistry of distal tephra and its implication on tephrochronology
- Rheological properties of magmas and their influence on mixing processes and eruption dynamics
- Magma chamber dynamics
- Magma degassing, hydrothermal system and phreatic eruption hazard
- Current seismicity
- Ground deformation and source modeling (land and space surveys)
- Reconstruction of the last eruption from chronicles
- Slope instability in pyroclastic terrains
- Millenial human inhabitation, present urbanization, and geological features
- unrest and volcanic hazards

**Fields of interest**
Geology; Geochemistry; Geophysics/Geodesy

**Target groups**
Research

**Product category**
Monograph

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V. Pasquale, M. Verdoya, P. Chiozzi, University of Genova, Genova, Italy

**Geothermics**

Heat Flow in the Lithosphere

After a brief review of global tectonics and the structure of the crust and upper mantle, the basic relations of conductive heat transport and the rock thermal properties are introduced as well as the various methods for measuring thermal conductivity and heat generation due to the decay of radioactive elements. The authors analyze geothermal flow and the thermal state of the lithosphere and deep interior and discuss the fundamental problems related to the formation, upwelling mechanisms, solidification and cooling of magmas. The text presents analytical methods that allow us to gain information on heat and groundwater flow from the analyses of temperature-depth data.

**Features**
- Offers a clear overview of the thermal structure of the Earth
- Gives an insight into the formation processes and upwelling mechanisms of magma
- Presents an interdisciplinary approach to the analysis of magma solidification, which involves phase change, and cooling of both intrusive igneous bodies and lava covers
- Introduces the methods for measuring the thermal properties and the radiogenic heat of rocks
- Presents analytical methods for the quantitative inference of the groundwater flow from analyses of subsurface temperature data

**Contents**
Lithosphere Structure and Dynamics.
- Heat Conduction and Thermal Parameters
- Heat Flow Model of the Lithosphere
- Temperature and Magnetic Processes
- Heat in the Groundwater Flow

**Fields of interest**
Geophysics/Geodesy; Geophysics and Environmental Physics; Renewable and Green Energy

**Target groups**
Research

**Product category**
Monograph

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J. Rabassa, CADIC-CONICET, Ushuaia, Argentina; C. Ollier, University of Western Australia, Perth, Australia (Eds)

**Gondwana Landscapes in southern South America**

Argentina, Uruguay and southern Brazil

**Contents**
Active Volcanoes of Chiapas (Mexico): El Chichón and Tacaná

This publication summarizes the studies carried out at two of the most active volcanoes of Chiapas (Mexico): El Chichón and Tacaná. El Chichón erupted explosively in 1982 killing more than 2000 people being the worst volcanic disaster in Mexico, and Tacaná produced two mild phreatic explosions in 1950 and 1986. Only after these explosions a surge of new studies began to unravel their volcanic history and impact. This book presents the state of the art advances in topics related to the geologic setting of the two volcanoes, their eruptive history and composition of erupted products, the hydrothermal systems and their manifestations.

Features
- State-of-the-art advances of the geological setting of El Chichón and Tacaná (Chiapas Region, Mexico)
- Hazard management based on the experiences after the 1982 eruption of El Chichón, one of the biggest eruptions on Earth in the 20th century
- The chapter on risk assessment covers among others: human health problems related with volcanic activity, successful and unsuccessful mitigation plans, infrastructure planning, and communication strategies

Contents

Fields of interest
Geology; Natural Hazards; Geophysics/Geodesy

Target groups
Research

Product category
Monograph

Due March 2014
2014. 250 p. 70 illus., 50 in color. (Active Volcanoes of the World) Hardcover
- approx. * € (D) 106,95 | € (A) 109,95 | sFr 143,50
- approx. € 99,95 | £90.00
ISBN 978-3-642-25889-3

Emission Factors of Carbonaceous Particulate Matter and Polycyclic Aromatic Hydrocarbons from Residential Solid Fuel Combustions

Emission inventory is basic for the understanding of environmental behaviors and potential effects of compounds, however, current inventories are often associated with relatively high uncertainties. One important reason is the lack of emission factors (EFs), especially for the residential solid fuel combustion in developing countries.

Features
- Measure emission factors of carbonaceous particulate matter and PAHs from residential combustions of a variety of solid fuels
- Identify and quantify the influences of fuel properties and combustion conditions
- Indicate much higher variations in field measurement compared to the laboratory study

Contents

Fields of interest
Environmental Science and Engineering; Atmospheric Protection/Air Quality Control/Air Pollution; Energy, general

Target groups
Research

Product category
Monograph

Due March 2014
2014. 180 p. 87 illus., 2 in color. (Springer Theses) Hardcover
- approx. * € (D) 106,99 | € (A) 109,99 | sFr 133,50
- approx. € 99,99 | £90.00
ISBN 978-3-642-39761-5

Typhoon Impact and Crisis Management

Major natural hazards have sparked growing public concern worldwide. This book provides new information on Typhoon Impact and Crisis Management using satellite remote sensing technology, linking the natural sciences and social sciences in typhoon studies. It examines remote sensing observations of typhoons (hurricanes), typhoon impacts on the environment, typhoon impacts on marine ecosystems, typhoon impacts and global changes, typhoon (hurricane) impacts on economics, and crisis management for typhoon (hurricane) disasters.

Features
- Links the natural sciences and social sciences in typhoon studies
- Provides information for typhoon crisis management using satellite remote sensing technology
- Describes links between atmospheric, ocean, and marine ecology

Contents

Fields of interest
Natural Hazards; Meteorology; Remote Sensing/Photogrammetry

Target groups
Research

Product category
Contributed volume

Due November 2013
2014. XVII, 581 p. 198 illus., 158 in color. (Advances in Natural and Technological Hazards Research, Volume 40) Hardcover
- * € (D) 106,99 | € (A) 109,99 | sFr 133,50
- € 99,99 | £90.00
ISBN 978-3-642-40694-2
News 10/2013

P. Tomascak, State University of New York, Oswego, NY, USA; T. Magna, Czech Geological Survey, Prague, Czech Republic; R. Dohmen, Ruhr-Universität Bochum, Bochum, Germany

Advances in Lithium Isotope Geochemistry

Not even a full decade has passed since the publication of a broadly inclusive summary of Li isotope research around the globe (Tomascak, 2004). Despite the short time, the use of this isotope system in the investigation of geo- and cosmochemical questions has veritably exploded, hinging in part on the advent of new analytical technology at the close of the millennium. Lithium, as a light element that forms low-charge, moderate-sized ions, manifests a number of chemical properties that make its stable isotope system useful in a wide array of geo- and cosmochemical research fields.

Features
- The most current summary of research on this topic available on the market (last major work in the field dates back to 2004)
- Offers complete coverage of all geochemical research on the topic in a field that has witnessed a massive boom in the last decade
- Includes long- and short-term historical perspectives of the field plus suggestions for profitable future research directions

Contents
Introduction.- Methodology of lithium analytical chemistry and isotope measurements.- Lithium in the cosmos.- Experimental constraints.- Li isotopes in the Earth’s mantle.- The surficial realm: Low T geochemistry of Li.- Linking deep and shallow Earth: arcs and orogens.- Summation: Li in the bulk Earth and comparison within the solar system.- Reflection: What have we learned and where can we go?

Field of interest
Geochemistry

Target groups
Research

Product category
Monograph

Due March 2014
2014. 120 p. 20 illus., 10 in color. (Advances in Isotope Geochemistry) Hardcover
➤ approx. *€ (D) 106,99 | € (A) 109,99 | sFr 133,50
➤ approx. € 99,99 | £90.00
ISBN 978-3-319-01429-6