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Government Reports Announcements & Index - 1991

Anesthesiology Keywords Review - Raj K. Modak 2013-01-24
The Second Edition of this handy review is formatted for ease of use. Over 300 detailed entries include key points, a discussion, and suggested readings for each keyword. Broad-based coverage addresses all areas of anesthesiology, including pediatrics. New key words have been added to this edition, and questions and answers at the end of each keyword presentation test and reinforce readers' knowledge. A companion website includes fully searchable text.
Policy, Regulation and Innovation in China's Electricity and Telecom Industries - Loren Brandt 2019-05-30
Openness and competition sparked major advances in Chinese industry. Recent policy reversals emphasizing indigenous innovation seem likely to disappoint.
Neonatal Monitoring Technologies: Design for Integrated Solutions - Chen, Wei 2012-04-30
"This book presents a unique integration of knowledge from multidisciplinary fields of engineering, industrial design, and medical science for the healthcare of a specific user group"--Provided by publisher.
Government Reports Annual Index: Corporate author - 1987

Experimental Investigations on Power Scaling of High-Brightness cw Ytterbium-Doped Thin-Disk Lasers - Birgit Weichelt 2021

Deformation Processes in TRIP/TWIP Steels - Anja Weidner 2020-04-09
This book demonstrates the potential of novel in-situ experiments, performed on microscopic and macroscopic length scales, for investigating localized deformation processes in metallic materials, particularly their kinetics and the associated evolution of local strain fields. It features a broad methodological portfolio, spanning optical and electron microscopy, digital image correlation, infrared theromgraphy and acoustic emission testing, and particularly focuses on identifying the localized microscopic deformation processes in high-strength/high-ductility CrMnNi TRIP/TWIP (TRansformation Induced Plasticity/TWinning Induced Plasticity) steels. Presenting state-of-the art methodology applied to topical and pertinent problems in materials engineering, this book is a valuable resource for researchers and graduate students working in the field of plasticity and deformation of structural materials.
Rolling of Advanced High Strength Steels - Jingwei Zhao 2017-07-12
Advanced high strength steels (AHSSs) for auto-making are primarily produced by rolling, plus heat treatment technologies if necessary. However, due to the metallurgical complexity of AHSSs, it is impossible to roll all of the AHSS grades in a rolling mill with the same rolling technology. Each of AHSSs has unique applications in vehicles, and specified rolling technologies are required to produce high quality AHSS products where they might be the best employed to meet performance demands of the automotive parts. Such background has prompted the publication of this scholarly book in the area of rolling of AHSSs with a purpose of providing readers with a valuable technical document that can be used in the research and development of AHSSs for automotive and other manufacturing industries. With contributors from USA, Germany, Poland, Italy, Spain, Austria, Australia, China, India and Iran, the book highlights the latest advances in rolling technologies of AHSSs. It focuses on the theory, simulation and practice of the rolling of AHSSs: The book introduces the history, types and advances of AHSSs and their processes; proposes new theory that is applicable to the rolling of AHSSs, presents mathematical and numerical modelling of AHSSs in rolling; covers thermomechanical processing technologies of AHSSs; provides case studies on the rolling practice of the most popular AHSSs and includes other rolling-related technologies of AHSSs. The book will be useful for both theoretical and applied research aimed at AHSSs rolling technologies, and will be a scientific and valuable literature for the metallurgists, engineers, materials scientists, academics and graduate students who are studying and working with AHSSs and their rolling technologies worldwide.
Constitutive Models for Rubber X - Alexander Lion 2017-08-15
In order to develop innovative products, to reduce development costs and the number of prototypes and to accelerate development processes, numerical simulations become more and more attractive. As such, numerical simulations are instrumental in understanding complicated material properties like chemical ageing, crack propagation or the strain- and temperature-induced crystallisation of rubber. Therefore, experimentally validated and physically meaningful constitutive models are indispensable. Elastomers are used for products like tyres, engine and suspension mounts or seals, to name a few. The interest in modelling the quasi-static stress-strain behaviour was dominant in the past decades, but nowadays the interests also include influences of environmental conditions. The latest developments on the material behaviour of elastomers are collected in the present volume. Constitutive Models for Rubber X is a comprehensive compilation of nearly all oral and poster contributions to the European Conference on Constitutive Models for Rubber (Munich, 28-31 August 2017). The 95 highly topical contributions reflect the state of-the-art in material modelling and testing of elastomers. They cover the fields of material testing and processing, filler reinforcement, electromagnetic sensitive elastomers, dynamic properties, constitutive modelling, micromechanics, finite element implementation, stress softening, chemical ageing, fatigue and durability. In the area of rubbery materials and structures, applied research will play an important role also in the coming decades. Constitutive Models for Rubber X is of interest to developers and researchers involved in the rubber processing and CAE software industries, as well as for academics in nearly all disciplines of engineering and material sciences.
Hydrology - M. Robinson 2017-02-15
The book comprises nine chapters, with seven core chapters dealing in detail with the basic principles and processes of the main hydrological components of the water cycle: precipitation, interception, evaporation, soil water, groundwater, streamflow and water quality. It takes a broadly non-mathematical approach, although some numeracy is assumed particularly in the treatment of evaporation and soil water. The introductory and concluding chapters show the relations and interactions between these components, and also put the importance of water into a wider human context – its significant role in human history, its key role today, and potential role in future in the light of climate change and increasing global population pressures. The book is thoroughly up-to-date, contains over 100 diagrams and photographs to explain and amplify the concepts described, and contains over 750 references for further study.
Spatial Modelling and Failure Analysis of Natural and Engineering Disasters through Data-based Methods - Faming Huang 2022-10-07

Government reports annual index - 199?

Lock-in Thermography - Otwin Breitenstein 2010-09-05
This is the first book on lock-in thermography, an analytical method applied to the diagnosis of microelectronic devices. This useful introduction and guide reviews various experimental approaches to lock-in thermography, with special emphasis on the lock-in IR thermography developed by the authors themselves.
Lock-in Thermography - Otwin Breitenstein 2003

This is the first book on lock-in thermography, an analytical method applied to the diagnosis of microelectronic devices. This useful introduction and guide reviews various experimental approaches to lock-in thermography, with special emphasis on the lock-in IR thermography developed by the authors themselves.
Agrindex - 1991

Fatigue of Materials at Very High Numbers of Loading Cycles - Hans-Jürgen Christ 2018-11-19
This book represents the final reports of the scientific projects funded within the DFG-SPP1466 and, hence, provides the reader with the possibility to familiarize with the leading edge of VHCF research. It draws a balance on the existing knowledge and its enhancement by the joint research action of the priority program. Three different material classes are dealt with: structural metallic materials, long-fiber-reinforced polymers and materials used in micro-electro-mechanical systems. The project topics address the development of suitable experimental techniques for high-frequency testing and damage monitoring, the characterization of damage mechanisms and damage evolution, the development of mechanism-based models and the transfer of the obtained knowledge and understanding into engineering regulations and applications.
Smolin and Thoft's The Cornea - Gilbert Smolin 2005
Smolin and Thoft’s The Cornea is often praised as the best available source of information on corneal and external diseases. This new edition, with its greatly expanded color atlas section, continues to provide guidance on diagnosing and managing problems associated with the cornea. It is now fully updated and contains additional information on corneal surgery, refractive surgery, and stem cell grafting, and a new chapter on optical and therapeutic contact lenses.
Cereal Research Communications - 2002

Bildverarbeitung für die Medizin 2018 - Andreas Maier 2018-02-20
In den letzten Jahren hat sich der Workshop "Bildverarbeitung für die Medizin" durch erfolgreiche Veranstaltungen etabliert. Ziel ist auch 2018 wieder die Darstellung aktueller Forschungsergebnisse und die Vertiefung der Gespräche zwischen Wissenschaftlern, Industrie und Anwendern. Die Beiträge dieses Bandes - einige davon in englischer Sprache - umfassen alle Bereiche der medizinischen Bildverarbeitung, insbesondere Bildgebung und -akquisition, Maschinelles Lernen, Bildsegmentierung und Bildanalyse, Visualisierung und Animation, Zeitreihenanalyse, Computerunterstützte Diagnose, Biomechanische Modellierung, Validierung und Qualitätssicherung, Bildverarbeitung in der Telemedizin u.v.m.
Coding for Data and Computer Communications - David Salomon 2006-02-28
Details the most important techniques used to make the storage and transmission of data fast, secure, and reliable. Accessible to both specialists and nonspecialists: Avoids complex mathematics
Infrared Thermography - Raghu Prakash 2012-03-14
Infrared Thermography (IRT) is commonly as a NDE tool to identify damages and provide remedial action. The fields of application are vast, such as, materials science, life sciences and applied engineering. This book offers a collection of ten chapters with three major sections - relating to application of infrared thermography to study problems in materials science, agriculture, veterinary and sports fields as well as in engineering applications. Both mathematical modeling and experimental aspects of IRT are evenly discussed in this book. It is our sincere hope that the book meets the requirements of researchers in the domain and inspires more researchers to study IRT.
Thomas Register of American Manufacturers and Thomas Register Catalog File - 2002
Vols. for 1970-71 includes manufacturers' catalogs.
Prudent Practices in the Laboratory - National Research Council 2011-04-25
Prudent Practices in the Laboratory-the book that has served for decades as the standard for chemical laboratory safety practice-now features updates and new topics. This revised edition has an expanded chapter on chemical management and delves into new areas, such as nanotechnology, laboratory security, and emergency planning. Developed by experts from academia and industry, with specialties in such areas as chemical sciences, pollution prevention, and laboratory safety, Prudent Practices in the Laboratory provides guidance on planning procedures for the handling, storage, and disposal of chemicals. The book offers prudent practices designed to promote safety and includes practical information on assessing hazards, managing chemicals, disposing of wastes, and more. Prudent Practices in the Laboratory will continue to serve as the leading source of chemical safety guidelines for people working with laboratory chemicals: research chemists, technicians, safety officers, educators, and students.
Precision Agriculture ‘05 - J.V. Stafford 2005-06-03
The potential benefits of ‘doing things more precisely’ in agriculture include terms such as environmental, economic, audit trail, vehicle guidance, crop management and others. Whilst some benefits have proved elusive, others are contributing positively to today’s agriculture. In such an environment, continuing research is required - and needs to be reported and disseminated to a wide audience. These Proceedings contain papers presented at the 5th European Conference on Precision Agriculture, held in Uppsala, Sweden. The papers reflect the wide range of disciplines that impinge on precision agriculture - technology, crop science, soil science, agronomy, information technology, decision support, remote sensing and others. Peer-reviewed papers from the 2nd European Conference on Precision Livestock Farming are presented in a companion proceedings, Precision Livestock Farming ’05.
Frost Survival of Plants - Akira Sakai 2012-12-06
Low temperature represents, together with drought and salt stress, one of the most important environmental constraints limiting the pro ductivity and the distribution of plants on the Earth. Winter survival, in particular, is a highly complex phenomenon, with regards to both stress factors and stress responses. The danger from winter cold is the result not only of its primary effect, i. e. the formation of ice in plant tissues; additional threats are presented by the freezing of water in and on the ground and by the load and duration ofthe snow cover. In recent years, a number of books and reviews on the subject of chilling and frost resistance in plants have appeared: all of these publications, however, concentrate principally on the mechanisms of injury and resistance to freezing at the cellular or molecular level. We are convinced that analysis of the ultrastructural and biochemical alterations in the cell and particularly in the plasma membrane during freezing is the key to understanding the limits of frost resistance and the mechanisms of cold acclimation. This is undoubtedly the immediate task facing those of us engaged in resistance research. It is nevertheless our opinion that, in addition to understanding the basic physiological events, we should be careful not to overlook the importance of the comparative aspects of the freezing processes, the components of stress avoidance and tolerance and the specific levels of resistance.
Introduction to Thermodynamics of Mechanical Fatigue - Michael M. Khonsari 2012-09-17
Fatigue is probabilistic in nature and involves a complex spectrum of loading history with variable amplitudes and frequencies. Yet most available fatigue failure prediction methods are empirical and concentrate on very specific types of loading. Taking a different approach, Introduction to Thermodynamics of Mechanical Fatigue examines the treatment of fatigue via the principles of thermodynamics. It starts from the premise that fatigue is a dissipative process and must obey the laws of thermodynamics. In general, it can be hypothesized that mechanical degradation is a consequence of irreversible thermodynamic processes. This suggests that entropy generation offers a natural measure of degradation. An Entropic Approach to Fatigue and Degradation Drawing on recent cutting-edge research and development, the authors present a unified entropic approach to problems involving fatigue. They introduce the fundamentals of fatigue processes and explore a wide range of practical engineering applications. Fundamental Concepts and Methodologies The book reviews commonly observed failure modes, discusses how to analyze fatigue problems, and examines the deformation characteristics of a solid material subjected to fatigue loading. It also looks at how to use thermodynamics to determine the onset of fatigue failure. In addition, the book presents methodologies for improving fatigue life and for accelerated fatigue testing. Learn How to Apply the Entropic Approach to Fatigue Problems Comprehensive and well organized, this work helps readers apply powerful thermodynamics concepts to effectively treat fatigue problems at the design stage. It offers an accessible introduction to a new and exciting area of research in the field of fatigue failure analysis.
Thermal Infrared Sensors - Helmut Budzier 2011-03-29
The problems involved in designing optimal infrared (IR) measuring systems under given conditions are commensurately complex. The optical set-up and radiation conditions, the interaction between sensor and irradiation and the sensor itself, determine the operation of the sensor system. Simple calculations for solving these problems without

any understanding of the causal relationships are not possible. Thermal Infrared Sensors offers a concise explanation of the basic physical and photometric fundamentals needed for the consideration of these interactions. It depicts the basics of thermal IR sensor systems and explains the manifold causal relationships between the most important effects and influences, describing the relationships between sensor parameters such as thermal and special resolution, and application conditions. This book covers: various types of thermal sensors, like thermoelectric sensor, pyroelectric sensors, microbolometers, micro-Golay cells and bimorphous sensors; basic applications for thermal sensors; noise - a limiting factor for thermal resolution and detectivity - including an outline of the mathematics and noise sources in thermal infrared sensors; the properties of IR sensor systems in conjunction with the measurement environment and application conditions; 60 examples showing calculations of real problems with real numbers, as they occur in many practical applications. This is an essential reference for practicing design and optical engineers and users of infrared sensors and infrared cameras. With this book they will be able to transform the demonstrated solutions to their own problems, find ways to match their commercial IR sensors and cameras to their measurement conditions, and to tailor and optimise sensors and set-ups to particular IR measurement problems. The basic knowledge outlined in this book will give advanced undergraduate and graduate students a thorough grounding in this technology.

Thermo-Mechanical Modeling of Additive Manufacturing - Michael Gouge 2017-08-03

Thermo-mechanical Modeling of Additive Manufacturing provides the background, methodology and description of modeling techniques to enable the reader to perform their own accurate and reliable simulations of any additive process. Part I provides an in depth introduction to the fundamentals of additive manufacturing modeling, a description of adaptive mesh strategies, a thorough description of thermal losses and a discussion of residual stress and distortion. Part II applies the engineering fundamentals to direct energy deposition processes including laser cladding, LENS builds, large electron beam parts and an exploration of residual stress and deformation mitigation strategies. Part III concerns the thermo-mechanical modeling of powder bed processes with a description of the heat input model, classical thermo-mechanical modeling, and part scale modeling. The book serves as an essential reference for engineers and technicians in both industry and academia, performing both research and full-scale production. Additive manufacturing processes are revolutionizing production throughout industry. These technologies enable the cost-effective manufacture of small lot parts, rapid repair of damaged components and construction of previously impossible-to-produce geometries. However, the large thermal gradients inherent in these processes incur large residual stresses and mechanical distortion, which can push the finished component out of engineering tolerance. Costly trial-and-error methods are commonly used for failure mitigation. Finite element modeling provides a compelling alternative, allowing for the prediction of residual stresses and distortion, and thus a tool to investigate methods of failure mitigation prior to building. Provides understanding of important components in the finite element modeling of additive manufacturing processes necessary to obtain accurate results Offers a deeper understanding of how the thermal gradients inherent in additive manufacturing induce distortion and residual stresses, and how to mitigate these undesirable phenomena Includes a set of strategies for the modeler to improve computational efficiency when simulating various additive manufacturing processes Serves as an essential reference for engineers and technicians in both industry and academia

Precision Agriculture â€˜05 - J.V. Stafford 2005-06-03

With ever-increasing pressures on world agriculture in both economic and environmental terms, application of the concept of precision agriculture is one way of enabling farmers and producers to cope. 'Doing arable agriculture and horticulture more precisely' means that the use of inputs is optimised, crop yield and quality are maximised and leakage of agro-chemicals and fertilisers to the environment is minimised.These Proceedings contain peer-reviewed papers presented at the 5th European Conference on Precision Agriculture, a biennial series of conferences initiated by John V Stafford in Warwick, UK in 1997. The papers reflect the wide range of disciplines that impinge on precision agriculture - technology, crop science, soil science, agronomy, information technology, decision support, remote sensing and others.The wide range of research topics reported will be a valuable resource for researchers, advisors, teachers and professionals in agriculture long after the conference has finished.

Sensors Application in Agriculture - Dimitrios S. Paraforos 2020-11-06

Novel technologies are playing an important role in the development of crop and livestock farming and have the potential to be the key drivers of sustainable intensification of agricultural systems. In particular, new sensors are now available with reduced dimensions, reduced costs, and increased performances, which can be implemented and integrated in production systems, providing more data and eventually an increase in information. It is of great importance to support the digital transformation, precision agriculture, and smart farming, and to eventually allow a revolution in the way food is produced. In order to exploit these results, authoritative studies from the research world are still needed to support the development and implementation of new solutions and best practices. This Special Issue is aimed at bringing together recent developments related to novel sensors and their proved or potential applications in agriculture.

Lock-in Thermography - Otwin Breitenstein 2019-01-09

This is the first book on lock-in thermography, an analytical method applied to the diagnosis of microelectronic devices. This useful introduction and guide reviews various experimental approaches to lock-in thermography, with special emphasis on the lock-in IR thermography developed by the authors themselves.

Sheet Metal Forming - Taylan Altan 2012

Studying Tree Responses to Extreme Events - Achim Bräuning 2017-06-05

Trees are among the longest-living organisms. They are sensitive to extreme climatic events and document the effects of environmental changes in form of structural modifications of their tissues. These modifications represent an integrated signal of complex biological responses enforced by the environment. For example, temporal change in stem increment integrates multiple information of tree performance, and wood anatomical traits may be altered by climatic extremes or environmental stress. Recent developments in preparative tools and computational image analysis enable to quantify changes in wood anatomical features, like vessel density or vessel size. Thus, impacts on their functioning can be related to climatic forcing factors. Similarly, new developments in monitoring (cambial) phenology and mechanistic modelling are enlightening the interrelationships between environmental factors, wood formation and tree performance and mortality. Quantitative wood anatomy is a reliable indicator of drought occurrence during the growing season, and therefore has been studied intensively in recent years. The variability in wood anatomy not only alters the biological and hydraulic functioning of a tree, but may also influence the technological properties of wood, with substantial impacts in forestry. On a larger scale, alterations of sapwood and phloem area and their ratios to other functional traits provide measures to detect changes in a tree’s life functions, and increasing risk of drought-induced mortality with possible impacts on hydrological processes and species composition of plant communities. Genetic variability within and across populations is assumed to be crucial for species survival in an unpredictable future world. The magnitude of genetic variation and heritability of adaptive traits might define the ability to adapt to climate change. Is there a relation between genetic variability and resilience to climate change? Is it possible to link genetic expression and climate change to obtain deeper knowledge of functional genetics? To derive precise estimates of genetic determinism it is important to define adaptive traits in wood properties and on a whole-tree scale. Understanding the mechanisms ruling these processes is fundamental to assess the impact of extreme climate events on forest ecosystems, and to provide realistic scenarios of tree responses to changing climates. Wood is also a major carbon sink with a long-term residence, impacting the global carbon cycle. How well do we understand the link between wood growth dynamics, wood carbon allocation and the global carbon cycle? Papers contribution to this Research Topic will cover a wide range of ecosystems. However, special relevance will be given to Mediterranean-type areas. These involve coastal regions of four continents, making Mediterranean-type ecosystems extremely interesting for investigating the potential impacts of global change on growth and for studying responses of woody plants under extreme environmental conditions. For example, the ongoing trend towards warmer temperatures and reduced precipitation can increase the susceptibility to fire and pests. The EU-funded COST Action STREeSS (Studying Tree Responses to extreme Events: a SynthesiS) addresses such crucial tree biological and forest ecological issues by providing a collection of important methodological and scientific insights, about the

current state of knowledge, and by opinions for future research needs.
Heat Pipes - David Reay 2013-10-01
Heat Pipes, 6th Edition, takes a highly practical approach to the design and selection of heat pipes, making it an essential guide for practicing engineers and an ideal text for postgraduate students. This new edition has been revised to include new information on the underlying theory of heat pipes and heat transfer, and features fully updated applications, new data sections, and updated chapters on design and electronics cooling. The book is a useful reference for those with experience and an accessible introduction for those approaching the topic for the first time. Contains all information required to design and manufacture a heat pipe Suitable for use as a professional reference and graduate text Revised with greater coverage of key electronic cooling applications
Energy Research Abstracts - 1987

Introduction to Mineralogy and Petrology - Swapan Kumar Haldar 2020-07-29
Introduction to Mineralogy and Petrology, second edition, presents the essentials of both disciplines through an approach accessible to industry professionals, academic researchers, and students alike. This new edition emphasizes the relationship between rocks and minerals, right from the structures created during rock formation through the economics of mineral deposits. While petrology is classified on the lines of geological evolution and rock formation, mineralogy speaks to the physical and chemical properties, uses, and global occurrences for each mineral, emphasizing the need for the growth of human development. The primary goal is for the reader to identify minerals in all respects, including host-rocks, and mineral deposits, with additional knowledge of mineral-exploration, resource, extraction, process, and ultimate use. To help provide a comprehensive analysis across ethical and socio-economic dimensions, a separate chapter describes the hazards associated with minerals, rocks, and mineral industries, and the consequences to humanity along with remedies and case studies. New to the second edition: includes coverage of minerals and petrology in extra-terrestrial environments as well as case studies on the hazards of the mining industry. Addresses the full scope of core concepts of mineralogy and petrology, including crystal structure, formation and grouping of minerals and soils, definition, origin, structure and classification of igneous, sedimentary and metamorphic rocks Features more than 250 figures, illustrations and color photographs to vividly explore the fundamental principles of mineralogy and petrology Offers a holistic approach to both subjects, beginning with the formation of geologic structures that is followed by the hosting of mineral deposits and the exploration and extraction of lucrative, usable products that improve the health of global economies Includes new content on minerals and petrology in extraterrestrial environments and case studies on hazards in the mining industry
Operando Research in Heterogeneous Catalysis - Joost Frenken 2016-12-26
This book is devoted to the emerging field of techniques for visualizing atomic-scale properties of active catalysts under actual working conditions, i.e. high gas pressures and high temperatures. It explains how to understand these observations in terms of the surface structures and dynamics and their detailed interplay with the gas phase. This provides an important new link between fundamental surface physics and chemistry, and applied catalysis. The book explains the motivation and the necessity of operando studies, and positions these with respect to the more traditional low-pressure investigations on the one hand and the reality of industrial catalysis on the other. The last decade has witnessed a rapid development of new experimental and theoretical tools for operando studies of heterogeneous catalysis. The book has a strong emphasis on the new techniques and illustrates how the challenges introduced by the harsh, operando conditions are faced for each of these new tools. Therefore, one can also read this book as a collection of recipes for the development of operando instruments. At present, the number of scientific results obtained under operando conditions is still limited and mostly focused on a simple test reaction, the catalytic oxidation of CO. This reaction thus forms a natural binding element between the chapters, linking the demonstrations of new techniques, and also connecting the theoretical and experimental studies. Some first results on other reactions are also presented. If there is one thing that can be concluded already in this early stage, it is that the catalytic conditions themselves can have dramatic effects on the structure and composition of the surfaces of catalysts, which, in turn can greatly affect the mechanisms, the activity, and the selectivity of the chemical reactions that they catalyze.
Fatigue Crack Growth in Rubber Materials - Gert Heinrich 2021-03-23
The book summarizes recent international research and experimental developments regarding fatigue crack growth investigations of rubber materials. It shows the progress in fundamental as well as advanced research of fracture investigation of rubber material under fatigue loading conditions, especially from the experimental point of view. However, some chapters will describe the progress in numerical modeling and physical description of fracture mechanics and cavitation phenomena in rubbers. Initiation and propagation of cracks in rubber materials are dominant phenomena which determine the lifetime of these soft rubber materials and, as a consequence, the lifetime of the corresponding final rubber parts in various fields of application. Recently, these phenomena became of great scientific interest due to the development of new experimental methods, concepts and models. Furthermore, crack phenomena have an extraordinary impact on rubber wear and abrasion of automotive tires; and understanding of crack initiation and growth in rubbers will help to support the growthing number of activities and worldwide efforts of reduction of tire wear losses and abrasion based emissions.
Thermal Infrared Remote Sensing - Claudia Kuenzer 2013-06-17
This book provides a comprehensive overview of the state of the art in the field of thermal infrared remote sensing. Temperature is one of the most important physical environmental variables monitored by earth observing remote sensing systems. Temperature ranges define the boundaries of habitats on our planet. Thermal hazards endanger our resources and well-being. In this book renowned international experts have contributed chapters on currently available thermal sensors as well as innovative plans for future missions. Further chapters discuss the underlying physics and image processing techniques for analyzing thermal data. Ground-breaking chapters on applications present a wide variety of case studies leading to a deepened understanding of land and sea surface temperature dynamics, urban heat island effects, forest fires, volcanic eruption precursors, underground coal fires, geothermal systems, soil moisture variability, and temperature-based mineral discrimination. ‘Thermal Infrared Remote Sensing: Sensors, Methods, Applications’ is unique because of the large field it spans, the potentials it reveals, and the detail it provides. This book is an indispensable volume for scientists, lecturers, and decision makers interested in thermal infrared technology, methods, and applications.
Fossil Energy Update - 1986