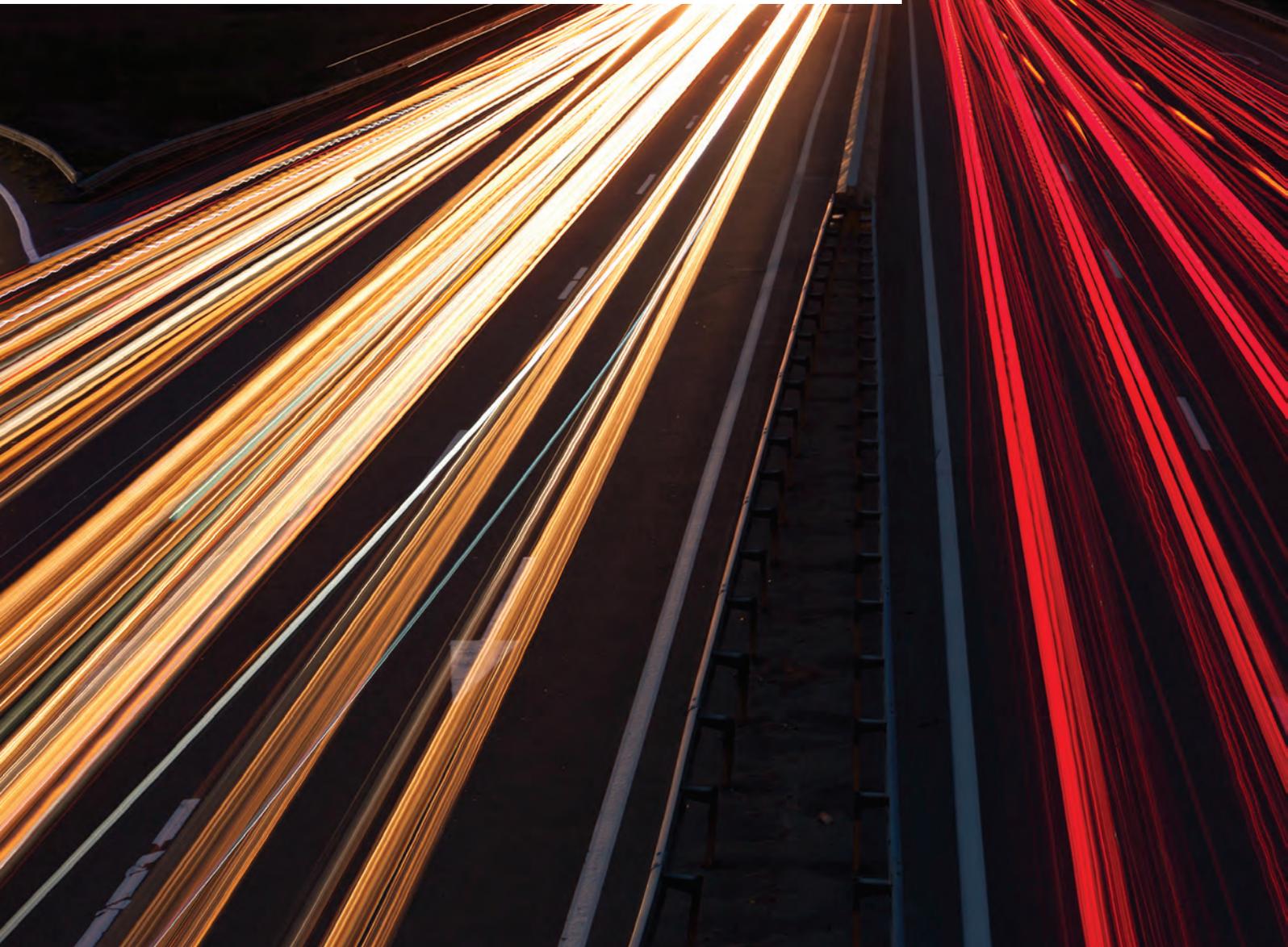


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# Gas, Oil and Petroleum

## 2017



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Topic's covered in this catalogue include Energy & Fuels, Mining, Mineral & Petroleum Engineering, Petroleum & Oil Industries and Rock Mechanics, Georisk & Hazards.

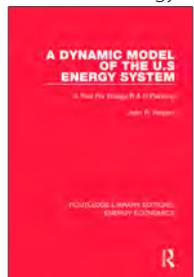
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Petroleum & Oil Industries .....	8
Rock Mechanics, Georisk & Hazards .....	12
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## A Dynamic Model of the US Energy System

A Tool For Energy R & D Planning



John P. Weyant

Series: *Routledge Library Editions: Energy Economics*

Originally published in 1984, this book develops a quantitative model designed for use in the evaluation of the relative merits of alternative energy R&D programmes. It is used to compare the merits of major energy-technology R&D programmes during the 1970s in the USA: Liquid-metal fast breeder reactors, synthetic fuels derived from coal and oil shale and improved efficiency in end-use technologies. The benefits/disadvantages are analyzed in terms of economics, security and the environment. Although published some years ago, the economic benefit assessed is in terms of the impact that commercialization of a particular energy-technology would have on the total 60

year cost of the US energy supply system. The security benefit is measured in terms of the reduction of crude oil imports and the environmental factors are measured here by the total tonnage of coal and oil shale that is extracted each year. All of these issues continue to be relevant today.

Routledge

Market: Energy Economics

October 2017: 234x156: 228pp

Hb: 978-1-138-50259-8: £90.00

eBook: 978-1-315-14497-9

\* For full contents and more information, visit: [www.routledge.com/9781138502598](http://www.routledge.com/9781138502598)

## Energy Science and Applied Technology

Proceedings of the 2nd International Conference on Energy Science and Applied Technology (ESAT 2015)



Edited by **Zhigang Fang**, School of Automotive Engineering, Wuhan University of Technology, Wuhan, China

This work contains papers on a wide range of topics from the 2015 Energy Science and Applied Technology conference and appeals to academics and engineers involved in energy and applied sciences.

CRC Press

Market: Water Science, Technology and Engineering

November 2015: 246x174: 554pp

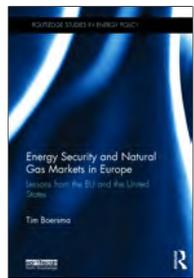
Hb: 978-1-138-02833-3: £184.00

eBook: 978-1-315-68095-8

\* For full contents and more information, visit: [www.crcpress.com/9781138028333](http://www.crcpress.com/9781138028333)

## Energy Security and Natural Gas Markets in Europe

Lessons from the EU and the United States



Tim Boersma, The Brookings Institution, USA

Series: *Routledge Studies in Energy Policy*

Moving beyond most conventional thinking about energy security in Europe which revolves around stability of supplies and the reliability of suppliers, this book presents the history of European policy-making regarding energy resources, including recent controversies about shale gas and fracking. Using the United States as a benchmark, the author tests the hypothesis that EU energy security is at risk primarily because of a lack of market integration and cooperation. This lack of integration prohibits natural gas to flow freely throughout the continent, which makes parts of Europe vulnerable in case of supply

disruptions.

Routledge

Market: Energy / Environmental Policy / Economics

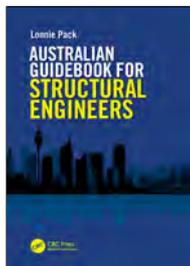
September 2015: 234x156: 196pp

Hb: 978-1-138-79512-9: £110.00

eBook: 978-1-315-75859-6

\* For full contents and more information, visit: [www.routledge.com/9781138795129](http://www.routledge.com/9781138795129)

## Australian Guidebook for Structural Engineers



Lonnie Pack, Tetra Tech Proteus, Australia

This valuable guide provides basic information for steel, concrete and geotechnical design, providing everything necessary for structural design engineers to create detailed and accurate calculations in accordance with Australian and other relevant international standards.

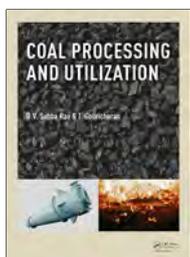
Detailed design items are also given, especially relevant to the mining and oil and gas industries. Examples include machine foundations, pipe racks, and bund design, and the book includes section calculations, force diagrams and capacity tables.

CRC Press

**Market:** Structural Engineering  
August 2017: 254 x 178: 490pp  
Hb: 978-1-138-03185-2: **£100.00**  
eBook: 978-1-315-19732-6

\* For full contents and more information, visit: [www.crcpress.com/9781138031852](http://www.crcpress.com/9781138031852)

## Coal Processing and Utilization



D.V. Subba Rao and T. Gouricharan, CSIR, Coal Preparation Division, Dhanbad, India

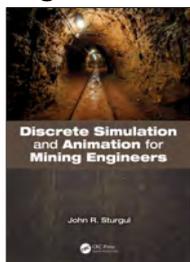
This book provides an integrated picture of the fundamentals of coal processing and utilization along with clean coal technology, while highlighting the presentation of all the basic principles, theory and practice in a systematic way. Every topic covered is dealt with in a self explanatory manner, and problems are introduced not so much to be solved as to be tackled. All the technical terminology used in this book has been sufficiently explained in order to allow the reader to understand the treated concepts effectively without needing to refer to other books.

CRC Press

**Market:** Mining Engineering  
May 2016: 246x174: 508pp  
Hb: 978-1-138-02959-0: **£125.00**  
eBook: 978-1-498-77859-6

\* For full contents and more information, visit: [www.crcpress.com/9781138029590](http://www.crcpress.com/9781138029590)

## Discrete Simulation and Animation for Mining Engineers



John R. Sturgul

This book explains how to model mining systems using GPSS/H® and PROOF® by Wolverine Software Corporation. Employing a unique approach that encourages engagement from the start, the text discusses animation first, and then slowly introduces simulation language. As each new topic is covered, an animation is provided to illustrate the key concepts. Leveraging valuable insight gained from the author's extensive experience modeling mines around the world, the book offers a comprehensive yet accessible treatment of mine simulation and animation useful in increasing the efficiency of industrial mining processes.

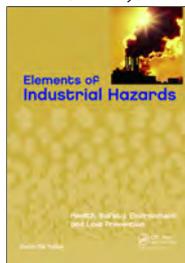
CRC Press

**Market:** Mining Engineering  
September 2015: 254 x 178: 600pp  
Hb: 978-1-482-25441-9: **£109.00**  
Pb: 978-1-138-74882-8: **£60.00**  
eBook: 978-1-482-25442-6

\* For full contents and more information, visit: [www.crcpress.com/9781482254419](http://www.crcpress.com/9781482254419)

## Elements of Industrial Hazards

Health, Safety, Environment and Loss Prevention



Ratan Raj Tatiya, Consultant – Need-Based Solutions, Jodhpur, India

An introductory course on Health, Safety and Environment as applicable to all manufacturing and exploration engineering industries. Its first part deals with fundamentals, ecology and environmental engineering and covers air and water pollution sources, magnitude, measuring techniques and remedial measures to minimize them. The second part deals with industrial hazards, health and safety. Includes standards, strategies, risk assessment and accident analysis. The last part treats elements of HSE management, a critical activity for virtually any engineering business. For a broad audience active in the

engineering, ranging from the plant supervisor to HSE consultants to operators in the field.

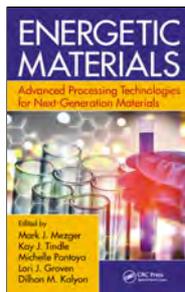
CRC Press

**Market:** Engineering Safety  
June 2017: 426pp  
Hb: 978-0-415-88645-1: **£115.00**  
Pb: 978-1-138-11526-2: **£59.99**  
eBook: 978-0-203-83612-5

\* For full contents and more information, visit: [www.crcpress.com/9781138115262](http://www.crcpress.com/9781138115262)

## Energetic Materials

Advanced Processing Technologies for Next-Generation Materials



Edited by Mark J. Mezger, US Army RDECOM-ARDEC Building 3022, Room 202 Picatinny Arsenal, NJ, 07801 USA, Kay J. Tindle, Texas Tech University, Lubbock, USA, Michelle Pantoya, Texas Tech University 2703 7th Street Lubbock, TX 79409-1021 USA, Lori J. Groven, South Dakota School of Mines and Technology 501 East St. Joseph Street Rapid City, SD 57701 USA and Dilhan Kalyon

This book will take an in-depth look at the technologies, processes, and capabilities to develop and produce "next generation" energetic materials for both commercial and defense applications, including military, mining operations, oil production and well perforation, and construction demolition. It will serve to highlight the critical technologies, latest developments, and

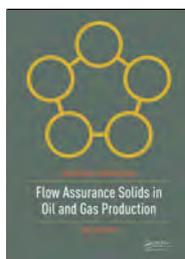
the current capability gaps that serve as barriers to military fielding or transition to the commercial marketplace. It will also explain how the processing technologies can be spun out for use in other non-energetics related industries.

CRC Press

**Market:** Engineering - Mining  
August 2017: 235 x 156: 290pp  
Hb: 978-1-138-03250-7: **£190.00**  
eBook: 978-1-315-16686-5

\* For full contents and more information, visit: [www.crcpress.com/9781138032507](http://www.crcpress.com/9781138032507)

## Flow Assurance Solids in Oil and Gas Production



Jon Steinar Gudmundsson

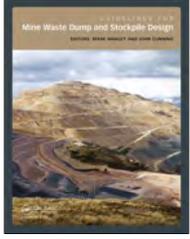
The precipitation and deposition of solids is a major challenge in the production of oil and gas. Five troublesome flow assurance solids are described in the book: asphaltene, paraffin wax, natural gas hydrate, naphthenate and inorganics scale. The technical, safety and environmental risks associated with deposition problems in near-wellbore formations, production tubing, wellhead equipment, flowlines and processing facilities, are relevant for decisions in the oil and gas industry and in outside entities such as regulatory and financial. The book is intended for professional engineers and natural scientist working in E&P, engineering, service, or specialized companies.

CRC Press

**Market:** Chemical Engineering  
August 2017: 246x174: 410pp  
Hb: 978-1-138-73784-6: **£92.00**  
eBook: 978-1-315-18511-8

\* For full contents and more information, visit: [www.crcpress.com/9781138737846](http://www.crcpress.com/9781138737846)

## Guidelines for Mine Waste Dump and Stockpile Design



Edited by **P. Mark Hawley**, Piteau Associates, Vancouver, Canada and **John Cunning**, Golder Associates, Vancouver, Canada

This work provides an illustrated reference covering the investigation, design, construction, operation and closure of mine waste rock dumps, dragline spoils and temporary stockpiles with a focus on geotechnical stability. It serves as a practical guide intended for a wide audience, including mine operators, geotechnical engineers, mining engineers, hydrogeologists, geologists and other specialists and generalists involved in the design, permitting, construction, operation, instrumentation, monitoring, and closure of mine waste rock dumps and stockpiles.

CRC Press

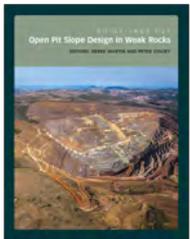
**Market:** Mining Engineering

April 2017: 270 x 210: 368pp

Hb: 978-1-138-19731-2: **£155.00**

\* For full contents and more information, visit: [www.crcpress.com/9781138197312](http://www.crcpress.com/9781138197312)

## Guidelines for Open Pit Slope Design in Weak Rocks



Edited by **Derek Martin**, University of Alberta, Edmonton, Canada and **Peter Stacey**, Stacey Mining Geotechnical Ltd, Vancouver, BC, Canada

Outlining the challenges and solutions for planning and operating open pit mines in 'weak rocks'. It was recognized that *Guidelines for Open Pit Slope Design* (2009) was focused primarily on open pit slopes in hard rocks and did not address the challenges that are often associated with open pits in 'weak rocks'. While open pits in weak rocks tend to be shallower than hard rock pits the pit wall failures can still be large. It is therefore critical that the presence of weak rocks is recognized early in

the design process, since they often cannot be treated in the same way as hard rocks. This recognition may require a different site characterization and design approach.

CRC Press

**Market:** Mining

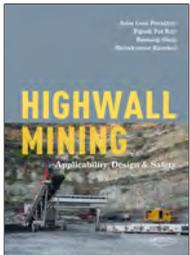
January 2018: 210 x 280: 550pp

Hb: 978-1-138-29809-5: **£145.00**

\* For full contents and more information, visit: [www.crcpress.com/9781138298095](http://www.crcpress.com/9781138298095)

## Highwall Mining

Applicability, Design & Safety



**John Loui Porathur**, CSIR-CIMFR Regional Centre, Nagpur, India, **Pijush Pal Roy**, Baotang Shen, CSIRO, Brisbane, Australia and **Shivakumar Karekal**, University of Wollongong, NSW, Australia

Highwall Mining Method is a remotely operated mining technology offering an economical and productive method to extract coal from surface mines which have reached their pit limits. This comprehensive technical book contains eight extensive chapters covering the description of highwall mining, world scenario, economic potential, methods of coal extraction, design methodology and safety concerns, along with case examples and norms and guidelines for practice. It also

summarizes some results of collaborative research carried out by the CSIR-Central Institute of Mining and Fuel Research (CSIR-CIMFR), India and the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia.

CRC Press

**Market:** Engineering - Mining

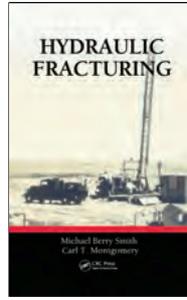
June 2017: 246x174: 324pp

Hb: 978-1-138-04690-0: **£115.00**

eBook: 978-1-315-17123-4

\* For full contents and more information, visit: [www.crcpress.com/9781138046900](http://www.crcpress.com/9781138046900)

## Hydraulic Fracturing



Edited by **Michael Berry Smith**, NSI Technologies, LLC, Tulsa, Oklahoma, USA and **Carl Montgomery**

*Series: Emerging Trends and Technologies in Petroleum Engineering*

This book explains how to properly engineer and optimize a hydraulically fractured well by selecting the right materials, evaluating the economic benefits, and ensuring the safety and success of the people, project, environment, and equipment. From data estimation to design, operation, and performance, the text presents a logical, step-by-step process for hydraulic fracturing that aids in proper engineering decision making when stimulating a particular reservoir. Numerous problem sets reinforce the learning and aid in risk assessment. Additional

material is available from the CRC Press website.

CRC Press

**Market:** Petroleum Engineering

June 2015: 235 x 156: 812pp

Hb: 978-1-466-56685-9: **£152.00**

eBook: 978-1-466-56692-7

\* For full contents and more information, visit: [www.crcpress.com/9781466566859](http://www.crcpress.com/9781466566859)

## Mechanical Behaviour of Salt VIII



Edited by **Lance Roberts**, South Dakota School of Mines & Technology, Rapid City, USA, **Kirby Mellegard** and **Frank Hansen**

The technical contributions contained in this volume characterize the continuity of science, engineering and modeling regarding the mechanical behavior of salt, and will appeal to a broad community involved in salt research and practice.

CRC Press

**Market:** Civil Engineering

May 2015: 246x174: 434pp

Hb: 978-1-138-02840-1: **£138.00**

eBook: 978-1-315-67885-6

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2nd Edition · NEW EDITION

## Mechanized Tunnelling in Urban Areas, 2nd edition

Design methodology and construction control

Edited by **Vittorio Guglielmetti**, Mechanized Tunnelling Consultant, Gazzola, Italy, **Piergiorgio Grasso**, **Ashraf Mahtab**, Geodata S.p.A., Torino, Italy and **Shulin Xu**, Geodata S.p.A., Turin, Italy

Mechanized tunnelling in urban areas has not previously received the attention that it deserves, despite there being specific hazards associated with the construction of tunnels in metropolitan areas. The application of technologies for achieving stability of tunnels and for minimizing surface settlement is described in this book. Accurate characterisation of the ground; rigorous assessment and management of risk from design to maintenance; the correct choice of a tunnel boring machine and a plan for the advancement of the tunnel; specific excavation procedures and real-time monitoring of excavation parameters are all discussed in this wholly revised and updated second edition.

CRC Press

**Market:** Civil Engineering; Tunnelling

January 2018: 246x174: 550pp

Hb: 978-1-138-00027-8: **£99.00**

eBook: 978-0-203-77144-0

Prev. Ed Hb: 978-0-415-42010-5

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## Mine Safety and Efficient Exploitation Facing Challenges of the 21st Century

International Mining Forum 2010



Edited by **Liu Zegong**, Jerzy Kicki, Polish Academy of Sciences, Cracow, Poland, **Hua Xinzhu**, **Yuan Shujie**, Anhui University of Science and Technology, Anhui, P.R. China, **Dai Guanglong** and **Eugeniusz J. Sobczyk**, Polish Academy of Sciences, Cracow, Poland

The International Mining Forum is a meeting of scientists and professionals for exchanging new ideas and experiences, evaluating previously implemented solutions, and discussing fresh ideas that might change the mining industry's image. The International Mining Forum 2010 will provide experts all over the world with an opportunity and platform to exchange information and ideas. Purpose of the forum is to promote

research and development of mine safety, efficient exploitation theory and provide theoretical and technical support for mine safety improvement.

CRC Press

**Market:** Mining

June 2017: 246x174: 300pp

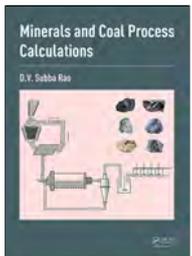
Hb: 978-0-415-59896-5: **£83.00**

Pb: 978-1-138-11786-0: **£59.99**

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## Minerals and Coal Process Calculations



D.V. Subba Rao

This book covers process calculations, the most vital part of mineral and coal processing operations. The aim of these calculations is to evaluate the performance of mineral and coal processing operations in terms of the efficiency of the operation and recovery of the required constituents. Process calculations are also necessary to understand the principles of separation processes. The majority of the calculations are performed by using two basic material balance equations without using derived formulae. This is the first book entirely devoted to process calculations by way of worked out examples and problems for practice.

CRC Press

**Market:** Environmental Engineering

December 2016: 246x174: 332pp

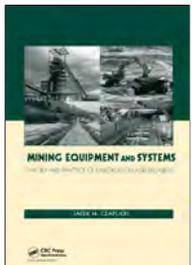
Hb: 978-1-138-62662-1: **£110.00**

eBook: 978-1-315-22552-4

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## Mining Equipment and Systems

Theory and Practice of Exploitation and Reliability



**Jacek M. Czaplicki**, Silesian University of Technology, Gliwice, Poland

This book gives an explanation of the mutual relationships between terotechnology and the theory of exploitation, and presents the fundamentals of the theory of exploitation and its role in relation to mining engineering where mine machines and machinery systems are concerned. Further, statistical diagnostics, exploitation processes of machines, reliability and its models, and the methods of modelling and analysis of the processes of changes of states are treated.

CRC Press

**Market:** Mining Engineering

June 2017: 296pp

Hb: 978-0-415-87731-2: **£85.00**

Pb: 978-1-138-11403-6: **£59.99**

eBook: 978-0-203-85280-4

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## Mining in Ecologically Sensitive Landscapes



**Mark Tibbett**, University of Western Australia, Crawley, Australia

Many areas of unusual geology that contain ore bearing bodies also support unique ecological communities of plants and animals. Where we have increasing demand to exploit rich mineral deposits this can lead to a conflict between mining and conservation interests in such landscapes. This book brings together experts in the field of mining and conservation and focusses on natural and semi-natural ecosystems, where

landscape beauty, biodiversity and conservation value are at their highest measure and the mineral wealth they contain can bring affluence of regional or even national importance.

CRC Press

**Market:** Environmental Sciences

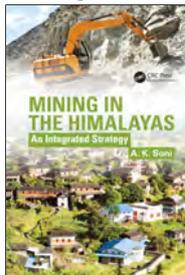
August 2015: 270 x 210: 276pp

Hb: 978-0-415-62091-8: **£90.00**

\* For full contents and more information, visit: [www.crcpress.com/9780415620918](http://www.crcpress.com/9780415620918)

## Mining in the Himalayas

An Integrated Strategy



**A.K. Soni**, CSIR-Central Institute of Mining and Fuel Research (CIMFR), Nagpur, Maharashtra, India

Himalaya, the world's most prominent mountain system of the world is a source of sustenance for the social, cultural and economic development of population across different countries. Unscientific, small-scale mining for harnessing resources including minerals has caused ecosystem damage. Therefore, an integrated and holistic approach to deal with the resource management is required. This book makes a focussed effort to explain how mining in the Himalaya is practiced with discussions pertaining to critiques and lacunas of mining and environmental practices. Status of mining practices in Himalaya is included along with the legal/environmental repercussions of mining.

CRC Press

**Market:** Engineering - Mining

September 2016: 235 x 156: 225pp

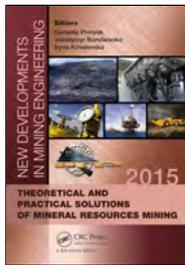
Hb: 978-1-498-76234-2: **£95.00**

eBook: 978-1-315-36755-2

\* For full contents and more information, visit: [www.crcpress.com/9781498762342](http://www.crcpress.com/9781498762342)

## New Developments in Mining Engineering 2015

Theoretical and Practical Solutions of Mineral Resources Mining



Edited by **Genadiy Pivnyak**, National Mining University, Dnipro, Ukraine, **Volodymyr Bondarenko**, National Mining University of Ukraine, Dnipropetrovsk, Ukraine and **Iryna Kovalevska**, National Mining University, Dnipropetrovsk, Ukraine

This volume presents multiple aspects of mining technology implementation in several aspects: extraction of coal, iron, manganese, uranium and other ores. Capturing and utilization of coalbed methane by various methods including alternative ones, safety measures in mining, ecological aspects, etc.; Specific attention is paid to intensification of mineral resources extraction processes by way of modernizing opening methods, development and mining methods depending on mining-geological conditions.

Experimental results of stress-strain state rock massif forecast by means of computational experiments using recursive methods are also discussed.

CRC Press

**Market:** Mining Engineering

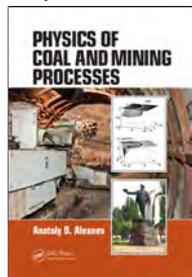
October 2015: 246x174: 600pp

Hb: 978-1-138-02883-8: **£110.00**

eBook: 978-1-315-64877-4

\* For full contents and more information, visit: [www.crcpress.com/9781138028838](http://www.crcpress.com/9781138028838)

## Physics of Coal and Mining Processes



Anatoly D. Alexeev, The National Academy of Sciences of Ukraine - Institute of Physics of Mining Processes, Donetsk  
Presenting a unifying methodology for addressing problems such as outbursts and explosions of methane in coal mining, this book integrates theoretical and experimental research on coal and bearing rocks and examines the anthropogenic processes that occur during deep underground mining. It reviews the latest in modern instrumentation and physical methods of analysis, including x-ray analysis of coal structure combined with computer simulation and nuclear magnetic resonance (NMR) spectroscopy combined with gas chromatography. Bridging the gap between the academic and practical aspects of coal mining, the text provides novel methods

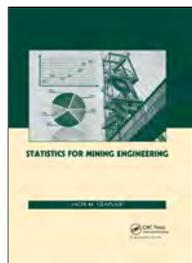
to predict rock mass conditions, control gas-dynamic phenomena, and estimate safe mining loads.

CRC Press

March 2017: 235 x 156: 383pp  
Hb: 978-1-439-87634-3: £135.00  
Pb: 978-1-138-07494-1: £59.95  
eBook: 978-1-439-87635-0

\* For full contents and more information, visit: [www.crcpress.com/9781138074941](http://www.crcpress.com/9781138074941)

## Statistics for Mining Engineering



Jacek M. Czaplicki, Silesian University of Technology, Gliwice, Poland

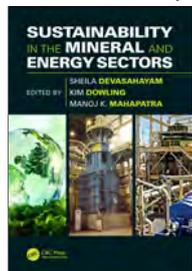
Knowledge about modern statistics is necessary for mining engineers; not only on how statistical analysis of data should be conducted and statistical synthesis should be done, but also on understanding the results obtained and how to use them to make appropriate decisions connected with a mining operation; This book on statistical analysis and synthesis is preceded by a short repetition of the probability theory. A special section about statistical prediction is also included. The text is illustrated by many examples taken from mine practice, moreover the tables required to conduct statistical inference are attached.

CRC Press

Market: Mining Engineering  
March 2017: 246x174: 288pp  
Hb: 978-1-138-00113-8: £110.00  
Pb: 978-1-138-07558-0: £59.95  
eBook: 978-1-315-81503-9

\* For full contents and more information, visit: [www.crcpress.com/9781138075580](http://www.crcpress.com/9781138075580)

## Sustainability in the Mineral and Energy Sectors



Edited by Sheila Devasahayam, Federation University Australia, Ballarat, Victoria, Australia, Kim Dowling, Federation University Australia, Victoria and Manoj K. Mahapatra, University of Alabama at Birmingham

This book examines sustainability issues facing the mining and energy sectors by addressing six major themes: Mining and Mineral Processing; Metallurgy and Recycling; Environment; Energy; Socioeconomic and Regulatory; and Sustainable Materials and Fleets. Emphasizing an integrated transdisciplinary approach, it deliberates on optimizing mining productivity and energy efficiency and discusses integrated waste management practices. It discusses risk management, cost cutting, and

integration of sustainable practices for long-term business value. The book covers water treatment and remediation and energy sustainability in mining and offers analytical perspectives on alternative and conventional energy and their integration into the mineral sector.

CRC Press

Market: Engineering-Mining  
September 2016: 254 x 178: 730pp  
Hb: 978-1-498-73302-1: £127.00  
eBook: 978-1-315-36985-3

\* For full contents and more information, visit: [www.crcpress.com/9781498733021](http://www.crcpress.com/9781498733021)

## Technical and Geoinformational Systems in Mining

School of Underground Mining 2011



Edited by Genadiy Pivnyak, National Mining University, Dnipro, Ukraine, Volodymyr Bondarenko, National Mining University of Ukraine, Dnipropetrovsk, Ukraine and Iryna Kovalevs'ka, National Mining University, Dnipropetrovsk, Ukraine

New trends of mineral deposits mining in the world consist of intensifying and concentration of mining operations. This is achieved with help of new technical equipment and its introduction into operations.

Alternative resources such as gas hydrates and alternative minerals extraction technologies such as underground coal gasification take a special place in our society nowadays and, thus, the description of these trends is given in this collection of scientific papers.

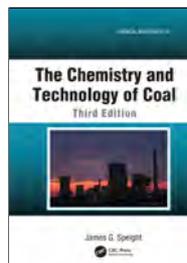
CRC Press

Market: Mining  
May 2017: 246x174: 360pp  
Hb: 978-0-415-68877-2: £110.00  
Pb: 978-1-138-11244-5: £59.99  
eBook: 978-0-203-33266-5

\* For full contents and more information, visit: [www.crcpress.com/9781138112445](http://www.crcpress.com/9781138112445)

3rd Edition

## The Chemistry and Technology of Coal, Third Edition



James G. Speight, CD&W Inc., Laramie, Wyoming, USA  
Series: Chemical Industries

The Chemistry and Technology of Coal, Third Edition covers the relationship of coal industry processes with environmental regulations, as well as the effects of combustion products on the atmosphere. It introduces the science of coal, beginning with its formation in the ground, leading to the production of a wide variety of products and petrochemical intermediates in the twenty-first century. The book is designed for scientists, engineers, and students engaged in the coal and/or catalyst manufacturing industry looking for a general overview or update on the science of coal.

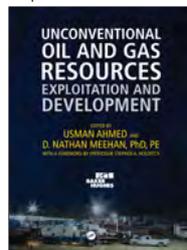
CRC Press

Market: Industrial Chemistry  
November 2016: 254x178: 845pp  
Hb: 978-1-439-83646-0: £146.00  
Pb: 978-1-138-19922-4: £51.99  
eBook: 978-1-439-83648-4

\* For full contents and more information, visit: [www.crcpress.com/9781138199224](http://www.crcpress.com/9781138199224)

## Unconventional Oil and Gas Resources

Exploitation and Development



Edited by Usman Ahmed, CTO, Unconventional Oil and Gas Resources Technology and Executive Technical Advisor, WellDog, Houston, Texas, USA and D. Nathan Meehan, Baker Hughes Incorporated, Houston, Texas, USA

Series: Emerging Trends and Technologies in Petroleum Engineering

This book provides a comprehensive understanding of the latest advances in the exploitation and development of unconventional resources, with an emphasis on shale. The text addresses all aspects of the process, from data mining and accounting to drilling, completion, stimulation, production, and

environmental issues.

CRC Press

Market: Petroleum Engineering  
June 2016: 279 x 216: 860pp  
Hb: 978-1-498-75940-3: £136.00  
eBook: 978-1-498-75941-0

\* For full contents and more information, visit: [www.crcpress.com/9781498759403](http://www.crcpress.com/9781498759403)

## Vertical and Decline Shaft Sinking

Good Practices in Technique and Technology, International Mining Forum 2015



Edited by **Jerzy Kicki**, Polish Academy of Sciences, Cracow, Poland, **Eugeniusz J. Sobczyk**, Polish Academy of Sciences, Cracow, Poland and **Pawel Kaminski**

Shaft sinking for underground transportation purposes is a very complex technological process in mining and geotechnology which requires specific and specially designed technological equipment. This technological process is dealt with for a long time, since mining is one of the oldest industries in the world. This book presents the technical papers that were presented at the International Mining Forum 2015. The International Mining Forum (IMF) is a meeting place of scientists and professionals who are engaged in confronting ideas and

experience, evaluating solutions implemented, and discussing new ideas that might change the image of the mining industry.

CRC Press

**Market:** Civil Engineering

March 2015; 246x174; 208pp

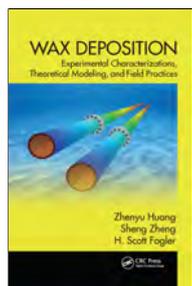
Hb: 978-1-138-02820-3; £82.00

eBook: 978-1-315-68383-6

\* For full contents and more information, visit: [www.crcpress.com/9781138028203](http://www.crcpress.com/9781138028203)

## Wax Deposition

Experimental Characterizations, Theoretical Modeling, and Field Practices



**Zhenyu Huang**, Assured Flow Solutions LLC, Sugar Land, Texas, USA, **Sheng Zheng**, University of Michigan, Ann Arbor, USA and **H. Scott Fogler**, University of Michigan, Ann Arbor, USA

*Series: Emerging Trends and Technologies in Petroleum Engineering*

This book provides a detailed description of the thermodynamic and transport theories for wax deposition modeling as well as a comprehensive review of laboratory testing for the establishment of appropriate field control strategies. Offering valuable insight from academic research and the flow assurance industry, this text aids engineers in identifying the severity and in providing guidance to control the problem of wax deposition.

The book also shows students and researchers how thermodynamics, heat, and mass transfer principles can be applied to solve a problem common to the petroleum industry.

CRC Press

**Market:** Petroleum Engineering

May 2015; 235 x 156; 184pp

Hb: 978-1-466-56766-5; £131.00

eBook: 978-1-466-56767-2

\* For full contents and more information, visit: [www.crcpress.com/9781466567665](http://www.crcpress.com/9781466567665)

## Digital Oil Fields, Big Data and Low Cost Oil Field Development

Proceedings of the 5th Digital Oilfield Summit Forum and International Academic Conference (DOSFIAC 2017), October 19-20, 2017, Qingdao, China

Edited by **Tracy Lee**

The proceedings of DOSFIAC 2017 consist of papers on topics such as artificial intelligence, machine learning, big data, cloud computing, IOT, smart reservoir, visualization, GIS and SCADA systems. The proceedings are of interest to those in related academic fields as well as professionals in the petroleum field.

CRC Press

**Market:** Petroleum Engineering

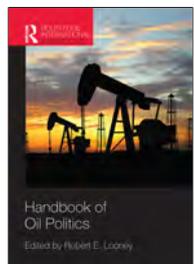
October 2017: 246x174: 325pp

Hb: 978-1-138-08703-3: **£130.00**

eBook: 978-1-315-11070-7

\* For full contents and more information, visit: [www.crcpress.com/9781138087033](http://www.crcpress.com/9781138087033)

## Handbook of Oil Politics



Edited by **Robert E. Looney**, Naval Postgraduate School, Monterey, California, USA

*Series: Routledge International Handbooks*

To many, oil markets and their linkages to a whole spectrum of events remain something of a mystery. Unfortunately, most of the easily obtained information on oil is deeply flawed. Whole web-conspiracy sites depict ruthless insiders and reckless dictators manipulating energy markets at will. The 30 essays in this volume, written by the leading experts in the field, attempt to set the record straight. While their assessments may lack the sensationalism of many popular pundits, serious readers will find their insights invaluable in the years to come in providing

a framework for understanding many of the events of the day. The five sections: Politics of Oil Supply, Political Responses, Regional Dimensions, Country Case Studies and Key Issues for the Future give a comprehensive overview of the politics of oil world-wide.

Routledge

**Market:** Handbooks, Politics, International Relations, Economics, Reference

August 2015: 246x174: 448pp

Hb: 978-1-857-43583-2: **£185.00**

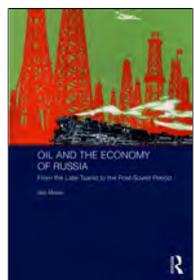
Pb: 978-1-857-43808-6: **£39.99**

eBook: 978-0-203-85101-2

\* For full contents and more information, visit: [www.routledge.com/9781857438086](http://www.routledge.com/9781857438086)

## Oil and the Economy of Russia

From the Late-Tsarist to the Post-Soviet Period



Edited by **Nat Moser**

*Series: BASEES/Routledge Series on Russian and East European Studies*

This book examines the development of the Russian economy from tsarist times to the present through the lens of the oil industry. It considers the role of the state, business-state relations, foreign participation, enterprise performance and technology. Besides providing much rich detail on the changing nature of the oil industry, the book also puts forward important conclusions, including the fact that in the late-nineteenth century private enterprise rather than the state was the principal driver of economic development, and that after the collapse of the Soviet Union incumbent managers were more effective in

running their companies than financier entrants, whose main concern was short term gain.

Routledge

**Market:** Russian Studies / Economics / Economic History

November 2017: 234x156: 208pp

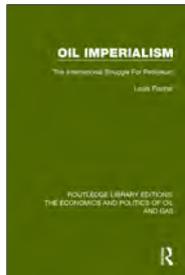
Hb: 978-1-138-24287-6: **£115.00**

eBook: 978-1-315-27750-9

\* For full contents and more information, visit: [www.routledge.com/9781138242876](http://www.routledge.com/9781138242876)

## Oil Imperialism

The International Struggle for Petroleum



Edited by **Louis Fischer**

*Series: Routledge Library Editions: The Economics and Politics of Oil and Gas*

The close dovetailing between the interests of oil trusts and the policies of diplomats was one of the most significant and absorbing political developments of 1910-1920. This book examines the growing importance of oil to Soviet Russia at the start of the twentieth century and the impact this had on the geo-politics of the region.

Routledge

**Market:** Economics

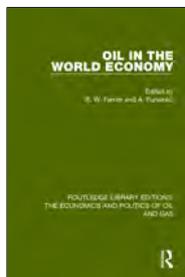
March 2016: 234x156: 256pp

Hb: 978-1-138-65566-9: **£80.00**

eBook: 978-1-315-62235-4

\* For full contents and more information, visit: [www.routledge.com/9781138655669](http://www.routledge.com/9781138655669)

## Oil In The World Economy



Edited by **R. W. Ferrier** and **A. Fursenko**

*Series: Routledge Library Editions: The Economics and Politics of Oil and Gas*

This book discusses the oil industry and its impact on the world economy in the 20th century. It examines the importance of oil in different sectors, and stresses the relevance of oil as a factor in modern economic history. The book includes chapters on American policy towards developing economies in the early 20<sup>th</sup> century; the policy of Russian oil exports in the 20s and 30s; the financing of the German and French oil industries; and the role of oil in the Japanese economy. On the international front, the book covers the impact of the Middle East national oil

companies, the effect of oil on the developing countries of South America and the relevance of the oil crisis of 1973.

Routledge

**Market:** Economics

March 2016: 234x156: 142pp

Hb: 978-1-138-64845-6: **£85.00**

eBook: 978-1-315-62642-0

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## Oil Shale Technology, Second Edition

Edited by **Sunggyu Lee**, Ohio University, Sustainable Energy and Advanced Materials Laboratory, Athens, USA

*Series: Green Chemistry and Chemical Engineering*

This book on science and technology of oil shale discusses petroleum and natural gas engineering, geology, oil shale formation, chemistry and petrochemistry, physicochemical and thermomechanical properties, analysis and characterization, oil and gas extraction/recovery technology, EOR, hydraulic fracture, horizontal drilling, frac fluid formulations, contaminated water treatment and soil remediation, greenhouse gas emission, corrosion, crude refining and upgrading, gas cleanup, process engineering and design, environmental technology, long-term sustainability, etc. It is updated throughout and new chapters added on hydraulic fracture of oil shale, shale gas economy, and environmental safety.

CRC Press

**Market:** Engineering - Chemical

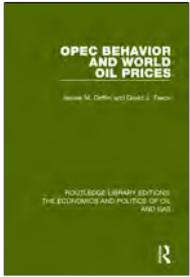
July 2018: 254 x 178: 448pp

Hb: 978-1-498-75519-1: **£99.00**

eBook: 978-1-498-75520-7

\* For full contents and more information, visit: [www.crcpress.com/9781498755191](http://www.crcpress.com/9781498755191)

## OPEC Behaviour and World Oil Prices



James M. Griffin and David J. Teece

Series: *Routledge Library Editions: The Economics and Politics of Oil and Gas*

This volume, originally published in 1982, brings together economists, political scientists and industry experts to explain OPEC's past achievements and future (in the early 1980s) prospects. The book opens with a clear, concise and easy to follow treatment of the economics of exhaustible resources under monopoly and competition, the framework frequently used to examine pricing issues. The role of wealth maximisation, wealth satisfying and political factors as OPEC objectives are discussed and implications for world oil prices assessed. The

stability of OPEC and the limitations of its pricing policy are examined and OPEC oil pricing and importers' policies analysed.

Routledge

Market: Economics

March 2016: 234x156: 238pp

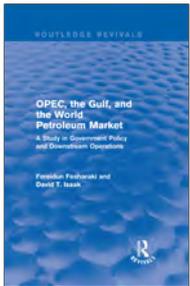
Hb: 978-1-138-64683-4: **£100.00**

eBook: 978-1-315-62735-9

\* For full contents and more information, visit: [www.routledge.com/9781138646834](http://www.routledge.com/9781138646834)

## OPEC, the Gulf, and the World Petroleum Market (Routledge Revivals)

A Study in Government Policy and Downstream Operations



Fereidun Fesharaki, Bank details updated SF 903598 22.8.16 DB and David T. Isaak, Bank details updated SF 903598 22.8.16 DB

First published in 1983, this book provides a detailed look at the OPEC nations' changing roles in the world oil market as they expanded their participation in "downstream" activities. The authors begin with a detailed survey of world oil resources and an overview of the production capabilities and policies of major oil exporters. They then examine the contemporary refinery overcapacity crisis in the developed world, outline the refinery construction plans of the OPEC nations and the refinery scrapping problems in the industrialised world, and employ simulation tools to estimate the future output mix of refineries

in key OPEC nations. They then examine the tanker industry, OPEC's ventures into petrochemical manufacturing and natural gas processing before concluding with a chapter on OPEC's future.

Routledge

Market: Economics/Politics

May 2016: 234x156: 268pp

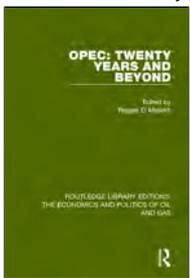
Hb: 978-1-138-68665-6: **£100.00**

Pb: 978-1-138-68667-0: **£27.99**

eBook: 978-1-315-54260-7

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## OPEC: Twenty Years and Beyond



Edited by Ragaei el Mallakh

Series: *Routledge Library Editions: The Economics and Politics of Oil and Gas*

Addressing the major issues arising from the power ascribed to the Organization of the Petroleum Exporting Countries (OPEC), this book reflects the breadth, expertise and multifaceted viewpoints of the contributors: members of OPEC itself, industry representatives, and scholars and energy specialists from the USA, Europe and the Middle East. Throughout the book, the authors look at the potential of OPEC, discernible trends in such crucial areas as global petroleum supply and pricing, and the international economic and political implications of both.

Routledge

Market: Economics

March 2016: 234x156: 298pp

Hb: 978-1-138-64287-4: **£100.00**

eBook: 978-1-315-62967-4

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## Politics of Oil

A Survey



Edited by Bulent Gokay, Keele University, UK

Series: *Europa Politics of... series*

This title presents key information on the oil industry world-wide, and will be of interest to anyone involved in or studying the politics of oil production, processing and selling. Oil has long been at the forefront of political agendas, and with increased tensions in the Middle East, there has never been a greater need for up-to-date, reliable information on this key industry. Includes essays covering topics such as oil companies and geopolitics, oil in Iraq, environment conflict in Nigeria and oil and the global political economy, an A-Z glossary for reference of theories, issues, organizations and conflicts, and a detailed maps and a statistics section.

Routledge

Market: Politics, Economics, International Relations

October 2017: 234x156: 260pp

Hb: 978-1-857-43340-1: **£170.00**

Pb: 978-1-857-43754-6: **£34.99**

eBook: 978-1-315-72829-2

\* For full contents and more information, visit: [www.routledge.com/9781857437546](http://www.routledge.com/9781857437546)

## Prospects for the World Oil Industry



Edited by Tim Niblock and Richard Lawless

Series: *Routledge Library Editions: The Economics and Politics of Oil and Gas*

Written in 1985, at a time when the world oil industry was facing a difficult period of over-supply and falling prices, this book examines some of the most important strategic issues facing both the producers and consumers of oil and gas. A theme underlying all the papers is the need for strengthening the co-operation between producing and consuming nations, especially between the Arab Gulf States and the members of the EU. The security of supply is also examined in the light of regional instability and peace in the Middle East.

Routledge

Market: Economics

March 2016: 234x156: 138pp

Hb: 978-1-138-64803-6: **£85.00**

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\* For full contents and more information, visit: [www.routledge.com/9781138648036](http://www.routledge.com/9781138648036)

## Routledge Library Editions: The Economics and Politics of Oil



Various Authors

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The books in this set, originally published between 1927 and 1996 discuss the oil industry and its impact on the world economy in the twentieth century. The volumes analyse and discuss:

The extent to which American dominance in world affairs is based on the control of oil resources Trends in such crucial areas as global petroleum supply and pricing, and the international economic and political implications of both. The impact of North Sea oil and gas on the British economy. Relations between oil exporters and importers, and between the USA, Europe and the Arab world The most important strategic issues facing both the producers and consumers of oil and gas.

Routledge

Market: Economics

March 2016: 234x156: 2830pp

Hb: 978-1-138-64127-3: **£790.00**

eBook: 978-1-315-62232-3

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## Routledge Revivals: A Failed Strategy (1993)

The Offshore Oil Industry's Development of the Outer Continental Shelf



**Geoffrey C. Laendner**

First published in 1993, this book traces and analyses the changing policies of American offshore oil companies concerning the exploration and development of the Outer Continental Shelf in the period from 1970 to 1976 — covering environmental legislation, the oil embargo, presidential initiatives, and proposed international laws. Where previous studies concerning the Outer Continental Shelf had only examined broad policy issues on an international level, this study focuses on those American offshore companies who were major actors in ocean affairs, especially in the exploration and development of the region.

Routledge

**Market:** Economics/Oil Industry

August 2016: 234x156: 206pp

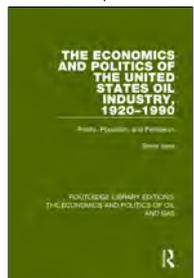
Hb: 978-1-138-23121-4: **£100.00**

eBook: 978-1-315-31568-3

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## The Economics and Politics of the United States Oil Industry, 1920-1990

Profits, Populism and Petroleum



**Steve Isser**

*Series: Routledge Library Editions: The Economics and Politics of Oil and Gas*

This book, originally published in 1996, traces the development of US government policy toward the oil industry during the 1920s and 30s. It charts the development & collapse of oil import controls, and the wild scramble for economic rents generated by Government regulation. It discusses the two oil crises and the 'phantom' Gulf War crisis, and the importance of public opinion in shaping the policy agenda. It also provides an in-depth study of Congressional oil votes from the 50s to the 80s and the formation of oil policy, beginning with theories of

economic regulation, the role of interest groups in developing the policy agenda and the role of money in politics.

Routledge

**Market:** Economics

March 2016: 234x156: 486pp

Hb: 978-1-138-65485-3: **£95.00**

eBook: 978-1-315-62293-4

\* For full contents and more information, visit: [www.routledge.com/9781138654853](http://www.routledge.com/9781138654853)

## The Impact of Joint Ventures on Bidding for Offshore Oil



**John Douglass Klein**

*Series: Routledge Library Editions: Energy Economics*

This volume, originally published in 1983 investigates joint venture participants in outer continental shelf sales from institutional, theoretical and statistical points of view. It includes a section on the 1975 joint bidding ban, which reviews the principal study which led to the ban and several which are critical of it. The study of offshore leasing sales goes far beyond the field of economics and this volume will therefore be of interest to those in geology and geophysics, finance, law, politics and statistics.

Routledge

**Market:** Energy Economics

October 2017: 234x156: 256pp

Hb: 978-1-138-50075-4: **£90.00**

eBook: 978-1-315-14397-2

\* For full contents and more information, visit: [www.routledge.com/9781138500754](http://www.routledge.com/9781138500754)

## The Nature of the Firm in the Oil Industry

International Oil Companies in Global Business



**Basak Beyazay**

*Series: Routledge Studies in International Business and the World Economy*

*The Nature of the Firm in the Oil Industry* analyzes the relationship between International Oil Companies, which are among the world's biggest firms and 'core system integrators', and the Oil Services Companies, which help to find, extract, produce and distribute oil along the oil industry supply chain. Aimed at researchers and academics, the book offers a thorough examination of this relationship to shed light on the nature of the firm, both in the oil industry and in global business today.

Routledge

**Market:** International Business

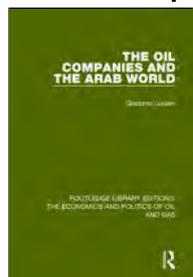
November 2015: 229 x 152: 168pp

Hb: 978-1-138-82684-7: **£110.00**

eBook: 978-1-315-73892-5

\* For full contents and more information, visit: [www.routledge.com/9781138826847](http://www.routledge.com/9781138826847)

## The Oil Companies and the Arab World



**Giacomo Luciani**

*Series: Routledge Library Editions: The Economics and Politics of Oil and Gas*

This structure of the oil industry was radically transformed in the 1970s and this book, originally published in 1984, examines whether the dis-integration which resulted was a long-term trend or a temporary phase. It examines the attitude of the major international oil companies, discusses the policies adopted by oil producing and oil importing countries, and the limits of 'government to government' deals underlined. The political and strategic implications of re-integration are explored, and relations between oil exporters and importers, and between the USA,

Europe and the Arab world discussed.

Routledge

**Market:** Economics

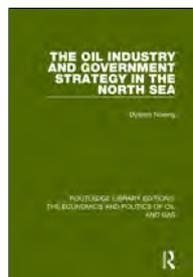
March 2016: 234x156: 206pp

Hb: 978-1-138-64781-7: **£100.00**

eBook: 978-1-315-62685-7

\* For full contents and more information, visit: [www.routledge.com/9781138647817](http://www.routledge.com/9781138647817)

## The Oil Industry and Government Strategy in the North Sea



**Oystein Noreng**

*Series: Routledge Library Editions: The Economics and Politics of Oil and Gas*

Originally published in 1980, this book presents a comparative analysis of British and Norwegian oil policies, focusing on the interdependence and bargaining relationship between governments and oil companies, as well as the policy choices, concerns and constraints for the two governments. The perspective is largely that of a government planner, whose main concerns are the long-term and complex interests of the state, orderly development as well as social and political stability.

Routledge

**Market:** Economics

March 2016: 234x156: 268pp

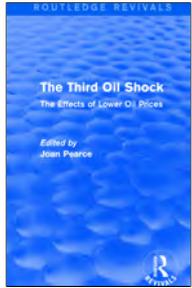
Hb: 978-1-138-65561-4: **£80.00**

eBook: 978-1-315-62241-5

\* For full contents and more information, visit: [www.routledge.com/9781138655614](http://www.routledge.com/9781138655614)

## The Third Oil Shock (Routledge Revivals)

The Effects of Lower Oil Prices



Edited by **Joan Pearce**

Series: *Routledge Revivals*

First published in 1983, this book collects the essays about the effects of a sustained period of low oil prices. The opening chapter describes how oil prices have impinged on other elements of the economy and assesses the costs and benefits, in the short and long term, of low prices. The following three chapters deal with different groups of countries and indicate clearly that for none of them do lower oil prices have unequivocally positive or negative effects — a situation examined in the chapter on the international financial system. The last three chapters analyse the shifts lower prices are likely to produce in relations among the groups closely involved in

the oil market.

Routledge

Market: Economics/International

April 2016: 216x138: 109pp

Hb: 978-1-138-66596-5: **£85.00**

Pb: 978-1-138-66968-0: **£27.99**

eBook: 978-1-315-61807-4

\* For full contents and more information, visit: [www.routledge.com/9781138665965](http://www.routledge.com/9781138665965)

## The United States and the Control of World Oil



Edward H. Shaffer

Series: *Routledge Library Editions: The Economics and Politics of Oil and Gas*

This volume, originally published in 1983, analyses the extent to which American dominance in world affairs is based on the control of oil resources and the changes which will inevitably take place with the end of the oil era. The author concludes that the USA will be forced to take part in a struggle to control both the new sources of energy and the new technology which must be developed to make use of them.

Routledge

Market: Economics

March 2016: 234x156: 256pp

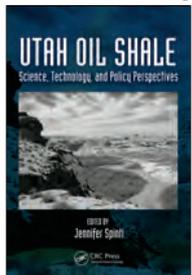
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Edited by **Jennifer Spinti**, Institute for Clean and Secure Energy, University of Utah, Salt Lake City, USA

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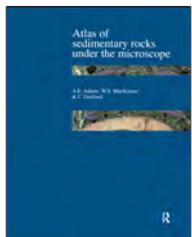
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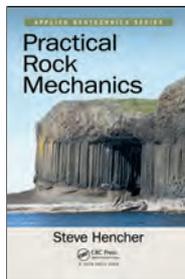
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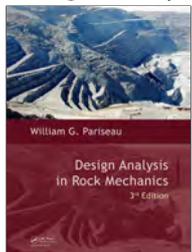
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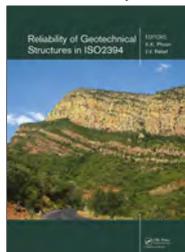
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\* For full contents and more information, visit: [www.crcpress.com/9781138029583](http://www.crcpress.com/9781138029583)**Reliability of Geotechnical Structures in ISO2394**

Edited by K.K. Phoon and J.V. Retief, Department of Civil Engineering, Stellenbosch University, Matieland, South Africa

This book provides data, methods and examples that can be used for probabilistic design of geotechnical structures in line with the topics covered in Annex D (Uncertainty representation of geotechnical design parameters, statistical characterization of multivariate geotechnical data and model factors, and implementation issues in geotechnical reliability-based design). The book unlocks the general principles of reliability as presented in the revised version of ISO 2394 for extended application in geotechnical practice effectively. The resulting systematic application of reliability based geotechnical design will

consequently be soundly founded on the reputable international standard.

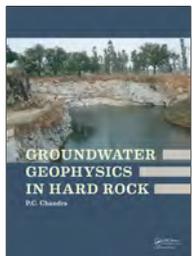
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\* For full contents and more information, visit: [www.crcpress.com/9781138029118](http://www.crcpress.com/9781138029118)**Groundwater Geophysics in Hard Rock**

Prabhat Chandra Chandra, Ministry of Water Resources Government of India, Patna, India

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interpretation of data with case studies and drilling results and the preparation of different utility maps.

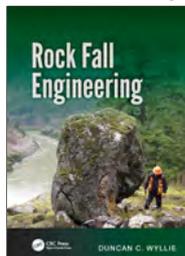
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Duncan C. Wyllie, Wyllie &amp; Norrish Rock Engineers Ltd., Vancouver, Canada

Rock falls can be a public safety issue; this book provides comprehensive information on the identification of these hazards related to geology, climate and topography, and the design and construction of protection structures. It sets out the theoretical background to rock fall behaviour in terms of impact and trajectory phases of rock falls, and applies this to the modeling of falls and the design of high impact energy capacity attenuator fences. The theory is supported by information from five carefully documented rock fall case studies.

CRC Press

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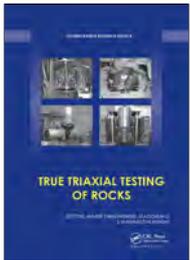
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## True Triaxial Testing of Rocks



Edited by Marek Kwasniewski, Silesian University of Technology, Gliwice, Poland, Xiaochun Li, Institute of Rock and Soil Mechanics, Chinese Academy of Sciences, Wuhan, P.R. China and Manabu Takahashi, Geological Survey of Japan, Tsukuba, Japan

*Series: Geomechanics Research Series*

The book provides a guide to rock engineers and engineering geologists as to how to perform laboratory tests and how to use the existing data for solving practical rock engineering design and operating problems. Knowledge of the behavior of rocks under general triaxial compression is also of crucial importance in the fields of structural geology and tectonophysics as the

effect of the intermediate and the minimum principal stresses may be a decisive factor in the mode of deformation and processes of gross-fracturing, faulting and earthquakes. In general, state-of-the-art advancements in the field of experiment and theory of the behavior of rocks under true triaxial stress conditions will be discussed in depth and paths for new research directions will be defined in the book.

CRC Press

**Market:** Rock Mechanics

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