Petroleum Economics Editions Technip

This compendium covers unconventional fuel sources, i.e., sources other than crude oil and natural gas with the aim of presenting these sources as future alternates to fossil fuels. The contents of this must-have volume are important aspects of the non-fossil fuel sources of availability of alternate sources of fuels. The properties of these fuels are well documented and compared to other fuels from non-petroleum sources (such as tar sand, coal, and oil shale). The environmental effects of non-petroleum fuels will also be compared to other fuels in terms of current environmental regulations.

With the encroachment of the Internet into nearly all aspects of work and life, it seems as though information is everywhere. However, there is information and then there is correct, appropriate, and timely information. While we might love being able to turn to Wikipedia® for encyclopedia-like information or search Google® for the thousands of links on a topic, engineers need the best information, information that is evaluated, up-to-date, and complete. Accurate, vetted information is necessary when building new skyscrapers or developing new prosthetics for returning military veterans While the award-winning first edition of Using the Engineering Literature used a roadmap analogy, we now need a three-dimensional analysis reflecting the complex and dynamic nature of research in the information age. Using the Engineering Literature, Second Edition provides a guide to the wide range of resources available in all fields of engineering. This second edition has been thoroughly revised and features new sections on nanotechnology as well as green engineering. The information age has greatly impacted the way engineers find information. Engineers have an effect, directly and indirectly, on almost all aspects of our lives, and it is vital that they find the right information at the right time to create better products and processes. Comprehensive and up to date, with expert chapter authors, this book fills a gap in the literature, providing critical information in a user-friendly format.

Rarely has the world's energy sector known such a complicated and fragile environment as that being experienced in 2011. Energy demand is increasing rapidly because of growth in the developing countries. It is largely met by fossil fuels : oil, natural gas and coal, and also by hydraulic and nuclear power. The use of all these forms of energy now gives rise to controversy. A year after the uncontrollable oil leaks from the Macondo well in the Gulf of Mexico, the consequences of the accident are still being debated. The development of shale gas, currently the source of half natural gas production in the United States, meets strong opposition in a number of European countries. Even more serious, the accident at Fukushima has put into question the future development of nuclear power, particularly in Europe but also in the USA. There is considerable criticism of the use of coal, which is the source for most of the energy needs in China and a number of developing countries, because of its emissions of CO2 and other pollutants. Even traditional biomass, whose use leads to deforestation and to respiratory diseases, and the development of hydraulic power are the subject of debate. How should one judge between these different energies ? How can decisions be taken between reducing consumption and increasing production ? What is the future for new renewable energies ? These are the issues at stake on the energy sector. This book appears just at the right time to provide clear and well documented replies to the questions that all of us, as energy users, are posing. How are the different forms of energy produced ? What does the future hold for them ? Who are the players active in the energy scene ? What are the supply constraints ? What is the impact of the strong growth in India and China on energy resources ? The book is in two parts. The first sets out the major characteristics of the energy sector. The second provides an analysis of the global energy issues region by region and details the geopolitical aspects. This work is well illustrated and accessible to all, as it does not require any specific prior knowledge. It will particularly interest readers seeking a global perspective of a sector that is fundamental both to our economy and also for our international policies.

The steps that lead to the production of oil and gas are diverse, complex and costly. They are diverse because the detection of oil and gas involves input from many specialties, ranging from geology to reservoir engineering. They are complex, as shown by the development of the job of the petroleum architect, who coordinates all the operations. They are costly, as the investments for exploration and production represent more than half of all investments in the oil and gas sector. Moreover, exploration is a risky activity, both from the technical and financial viewpoint: only one well in five produces marketable oil. Meanwhile, the areas for exploration and production are spread throughout the world.

Handbook of Refinery Desulfurization describes the operation of the various desulfurization process units in a petroleum refinery. It also explains the processes that produce raw materials for the petrochemical industry. It illustrates all the possible processes to lower the sulfur contents in petroleum and its fractions to decrease emissions of sulfur oxides. This book introduces you to desulfurization concepts, including biodesulfurization, as well as technology, giving guidance on how to accomplish desulfurization in various refining processes. It contains background chapters on the composition and evaluation of feedstocks and includes diagrams and tables of feedstocks and their respective produce. It also outlines how to decide which method should be employed to remove sulfur from different feedstocks. A practical and thorough discussion of the field, Handbook of Refinery Desulfurization gives you a strong grasp of the various processes involved with industrial desulfurization while giving you pointers on which procedures to use under certain conditions.

The last three chapters of this book deal with application of methods presented in previous chapters to estimate various thermodynamic, physical, and transport properties of petroleum fractions. In this chapter, various methods for prediction of physical and thermodynamic properties of pure hydrocarbons and their mixtures, petroleum fractions, crude oils, natural gases, and reservoir fluids are presented. As it was discussed in Chapters 5 and 6, properties of gases may be estimated more accurately than properties of liquids.

Theoretical methods of Chapters 5 and 6 for estimation of thermophysical properties generally can be applied to both liquids and gases; however, more accurate properties can be predicted through empirical correlations particularly developed for liquids. When these correlations are developed with some theoretical basis, they are more accurate and have wider range of applications. In this chapter some of these semitheoretical correlations are presented. Methods presented in Chapters 5 and 6 can be used to estimate properties such as density, enthalpy, heat capacity, heat of vaporization, and vapor pressure. Characterization methods of Chapters 2-4 are used to determine the input parameters needed for various predictive methods. One important part of this chapter is prediction of vapor pressure that is needed for vapor-liquid equilibrium calculations of Chapter 9.

Many oil production processes present a significant challenge to the oil and gas field processing facilities and equipment design. The optimization of the sequential operations of handling the oil–gas mixture can be a major factor in increasing oil and gas production rates and reducing operating costs. Petroleum and Gas Field Processing provides an all-inclusive guide to surface petroleum operations and solves these and other problems encountered in the field processing of oil and gas. Fully revised and updated to reflect major changes over the past decade or so, this second edition builds on the success attained in the first edition. It delivers an expanded and updated treatment that covers the principles and procedures related to the processing of reservoir fluids for the separation, handling, treatment, and production of quality petroleum oil and gas products. With five new chapters, this second edition covers additional subjects, in particular natural gas, economics and profitability, oil field chemicals, and piping and pumps. The book also contains worked-out examples and case studies from a variety of oil field operations.

Shale Oil and Gas Handbook: Theory, Technologies, and Challenges provides users with information on how shale oil and gas exploration has revolutionized today’s energy industry. As activity has boomed and job growth continues to increase, training in this area for new and experienced engineers is essential. This book provides comprehensive information on both the engineering design and research aspects of this emerging industry. Covering the full spectrum of basic definitions, characteristics, drilling techniques, and processing and extraction technologies, the book is a great starting point to educate oil and gas personnel on today’s shale industry. Critical topics covered include characterization of shale gas, theory and methods, typical costs, and obstacles for exploration and drilling, R&D and technology development in shale production, EOR methods in shale oil reservoirs, and the current status and impending challenges for shale oil and gas, including the inevitable future prospects relating to worldwide development. Reveals all the basic information needed to quickly understand today’s shale oil and gas industry, including advantages and disadvantages, equipment and costs, flow diagrams, and processing stages Evenly distributes coverage between oil and gas into two parts, as well as upstream and downstream content Provides a practical handbook with real-world case studies and problem examples, including formulas and calculations

The Fischer-Tropsch process is gaining recognition again due to the world-wide increase in energy needs and decrease in oil availability. The increasing interest in utilizing biomass as a potential renewable feedstock in energy generation is further supporting this development. The book covers the production and refining of Fischer-Tropsch syncrude to fuels and chemicals systematically and comprehensively, presenting a wealth of new knowledge and material. As such, it deals extensively with aspects of engineering, chemistry and catalysis. This handbook and ready reference adopts a fundamental approach, looking at the molecules and their transformation from feed to product. Numerous examples illustrate the possibilities and limitations of Fischer-Tropsch syncrude as feesdstock. Of great interest to everyone interested in refining - not just Fischer-Tropsch specialists. From the Contents: Fischer-Tropsch Facilities and Refineries at a Glance Production of Fischer-Tropsch Syncrude Industrial Fischer-Tropsch Facilities Synthetic Transportation Fuels Refining Technology Refinery Design

At a time when the topic of energy is front and centre, this book examines the basic concepts that are essential to grasping the energy issues of the 21st century. All the main questions that people have about energy, especially oil and gas, are addressed, providing students, academics, journalists, representatives of government and other institutions and interested readers in general with the information they need to understand the complex, multifaceted energy sector. Abundantly illustrated, this book represents five years of exhaustive research on a fascinating and highly controversial topic. It discusses all the processes related to fossil forms of energy, from the formation of hydrocarbons (crude oil and natural gas) to the delivery of oil and gas to consumers. Il also examines renewable energy options and climate change issues in addressing the major geopolitical challenges facing the energy sector.

The petrochemical industry is a scientific and engineering field that encompasses the production of a wide range of chemicals and polymers. The purpose of this book is not only to provide a follow-on to form the later chapters of the highly successful Chemistry and Technology of Petroleum 5th Edition but also provides a simplified approach to a very diverse chemical subject dealing with the chemistry and technology of various petroleum and petrochemical process. Following from the introductory chapters, this book provides the readers with a valuable source of information containing insights into petrochemical reactions and products, process technology, and polymer synthesis. Provides readers with a valuable source of information containing insights into petrochemical reactions and products, process technology, and polymer synthesis Introduces the reader to the various petrochemical intermediates are generally produced by chemical conversion of primary petrochemicals to form more complicated derivative products The reactions and processes involved in transforming petroleum-based hydrocarbons into the chemicals that form the basis of the multi-billion dollar petrochemical industry are reviewed and described The book includes information on new process developments for the production of raw materials and intermediates for petrochemicals Includes a description of the origin of the raw materials for the petrochemicals industry – including an overview of the coal chemicals industry

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.
Petroleum refining involves refining crude petroleum as well as producing raw materials for the petrochemical industry. This book covers current refinery processes and process-types that are likely to come on-stream during the next three to five decades. The book includes (1) comparisons of conventional feedstocks with heavy oil, tar sand bitumen, and bio-feedstocks; (2) properties and refinability of the various feedstocks; (3) thermal processes versus hydroprocesses; and (4) the influence of refining on the environment.
Since its modest beginning in the 1970s, the academic and research focus on energy has grown substantially and energy has established itself as an independent, interdisciplinary subject area. It attracts attention from people in a range of different fields including engineers, scientists, geologists, environmentalists, bankers, investors, policy makers and politicians. Energy Economics introduces the basic concepts of energy economics and explains how simple economic tools can be used to analyse contemporary energy issues. Energy Economics is organised into six parts that give the reader a thorough grounding in various key aspects of the subject: basic demand-related concepts and ideas used in energy economics; supply-side economics; energy markets, with specific emphasis on oil, gas and coal; the application of simple economic principles in analysing contemporary energy issues; environmental aspects of energy use; and regulatory and governance issues. Energy Economics is an easily accessible reference book for students of energy economics at the postgraduate level, as well as for a wider interdisciplinary audience. It provides readers with the skills required to understand and analyse complex energy issues from an economic perspective.
These proceedings contain 270 papers outlining ideas and contributions to the new scientific, technical and political discipline of Greenhouse Gas (GHG) Control. The contributions were presented at the 4th International Conference on Greenhouse Gas Control Technologies (GHGT-4). It was the largest gathering of experts active in this new and fast-developing field. GHGT-4 was different from its predecessors in that it included all greenhouse gases, not only CO2, and all issues which could contribute to the mitigation of the greenhouse problem - technical, economic and political. The main focus was on practical solutions and real demonstrations of mitigation technology being planned and implemented today. It also addressed ways to increase the efficiency of power production and utilisation, and looked at proposals to encourage the development of renewable energy sources. During the Opening Session, 10 keynote addresses were heard from prominent personalities in government, industry and academia. To tackle this very inter-disciplinary problem and to achieve acceptable solutions, it is essential for industry and government to initiate intense dialogue and cooperation. Conferences like this can provide the opportunity for a meeting of minds between engineers and politicians in the face of global challenge. The primary attributes of this global challenge are manifold: the problem is global and international; it is inter-disciplinary, both in substance and approach; it covers technical, political and economic issues and involves government, science, industry and academia; it is complex and non-linear; and it will take the efforts of all parties involved to solve the problem. These proceedings contain ideas for starting demonstration projects and for making better use of the power and flexibility of market measures. They also show it is a problem we can influence and that there is a wealth of ideas. The challenge now is to find the right partners to put these ideas into action.
This book provides an account of work in the Schumpeterian and evolutionary tradition of industrial dynamics and the evolution of industries. It is shown that over time industries evolve and change their structure. In this dynamic process, change is affected and sometimes constraint by many factors, including knowledge and technologies, the capabilities and incentives of actors, new products and processes, and institutions.
For four decades, Petroleum Refining has guided thousands of readers toward a reliable understanding of the field, and through the years has become the standard text in many schools and universities around the world offering petroleum refining classes, for self-study, training, and as a reference for industry professionals. The sixth edition of this perennial bestseller continues in the tradition set by Jim Gary as the most modern and authoritative guide in the field. Updated and expanded to reflect new technologies, methods, and topics, the book includes new discussion on the business and economics of refining, cost estimation and complexity, crude origins and properties, fuel specifications, and updates on technology, process units, and catalysts. The first half of the book is written for a general audience to introduce the primary economic and market characteristics of the industry and to describe the inputs and outputs of refining. Most of this material is new to this edition and can be read independently or in parallel with the rest of the text. In the second half of the book, a technical review of the main process units of a refinery is provided, beginning with distillation and covering each of the primary conversion and treatment processes. Much of this material was reorganized, updated, and rewritten with greater emphasis on reaction chemistry and the role of catalysis in applications. Petroleum Refining: Technology, Economics, and Markets is a book written for users, the practitioners of refining, and all those who want to learn more about the field.
In this unique volume, renowned experts discuss the applications of fractals in petroleum research-offering an excellent introduction to the subject. Contributions cover a broad spectrum of applications from petroleum exploration to production. Papers also illustrate how fractal geometry can quantify the spatial heterogeneity of different aspects of geology and how this information can be used to improve exploration and production results.
Vexing issues concerning internal and external change challenge Europe as it tries hard to regroup, reform and refocus. This series is intended to present an ongoing forum to stimulate discussion of these issues. Political Bailout in Germany; Integrating European Financial Services: Developing Substantive Theory; The External and Internal Balance of the Convergence Process of Transformation Economies to the EU; Economic Effects of Nuclear Phase-Out in Germany; The Asymmetric Adjustment of Prices: Theory and Evidence from UK Manufacturing; European Union: Deeper Integration or Wider Membership? A Multivariate Statistical Analysis: Introduction; Research Design; The European Community on an Uncertain Path; Active Citizenship in the Changing Society -- Evidence from Six European Countries; European Union Media Policy: Finding a Path Between

Commercial and Public Broadcasting in a Dual System; Index.

A comprehensive textbook on petrochemical conversion processes for petroleum and natural gas fractions as produced by refinery operations This innovative textbook provides essential links between the chemical sciences and chemical technology, between petrochemistry and hydrocarbon technology. The book brings alive key concepts forming the basis of chemical technology and presents a solid background for innovative process development. In all chapters, the processes described are accompanied by simplified flow schemes, encouraging students to think in terms of conceptual process designs. Petrochemistry: Petrochemical Processing, Hydrocarbon Technology and Green Engineering introduces students to a variety of topics related to the petrochemical industry, hydrocarbon processing, fossil fuel resources, as well as fuels and chemicals conversion. The first chapter covers the fundamentals and principals for designing several of the processes in the book, including discussions on thermodynamics, chemical kinetics, reactor calculations, and industrial catalysts. The following chapters address recent advances in hydrocarbon technology, energy technology, and sources of hydrocarbons. The book then goes on to discuss the petrochemical industry based on four basic pillars, all derived from petroleum and natural gas: Production of lower alkenes; other sources of lower alkenes; petrochemicals from C2-C3 alkenes Production of BTX aromatics; chemicals from BTX aromatics C1 technology Diversification of petrochemicals The growing importance of sustainable technology, process intensification and addressing greenhouse gas emissions is reflected throughout the book. Written for advanced students working in the areas of petrochemistry, hydrocarbon technology, natural gas, energy materials and technologies, alternative fuels, and recycling technologies the book is also a valuable reference for industrial practitioners in the oil and gas industry.

With demand for petroleum products increasing worldwide, there is a tendency for existing refineries to seek new approaches to optimize efficiency and throughput. In addition, changes in product specifications due to environmental regulations greatly influence the development of petroleum refining technologies. These factors underlie the need for this fifth edition of The Chemistry and Technology of Petroleum, which continues in the tradition of the bestselling fourth edition, proving readers with a detailed overview of the chemistry and technology of petroleum as it evolves into the twenty-first century. The new edition has been updated with the latest developments in the refining industry, including new processes as well as updates on evolving processes and various environmental regulations. The book covers issues related to economics and future refineries, examines the changing character of refinery feedstock, and offers new discussions on environmental aspects of refining. It contains more than 300 figures and tables, including chemical structures and process flow sheets. A useful reference for scientists and engineers in the petroleum industry as well as in the catalyst manufacturing industry, this book introduces readers to the science and technology of petroleum, beginning with its formation in the ground and culminating in the production of a wide variety of products and petrochemical intermediates.

With contributions by D. Babusiaux (IFP Energies nouvelles), S. Barreau (IFP Energies nouvelles), P.-R. Bauquis (Total), N. Bret-Rouzaut (IFP Energies nouvelles), A. Chétrit (Total), P. Copinschi (IFP Energies nouvelles), J.-P. Favennec (IFP Energies nouvelles), R. Festor (Total), E. Feuillet-Midrier (IFP Energies nouvelles), M. Grossin (Total), D. Guirauden (Beicip), V. Lepez (Total), P. Sigonney (Total) et M. Valette (Total). The first edition of this book has been selected for inclusion in Choice’s annual Outstanding Academic titles list. It has been rewarded for its excellence in scholarship and presentation, the significance of its contribution to the field, and its value as important treatment of the subject. The steps that lead to the production of oil and gas are diverse, complex and costly. They are diverse because the detection of oil and gas involves input from many specialties, ranging from geology to reservoir engineering. They are complex, as shown by the development of the job of the petroleum architect, who coordinates all the operations. They are costly, as the investments for exploration and production represent more than half of all investments in the oil and gas sector. Moreover, exploration is a risky activity, both from the technical and financial viewpoint: only one well in five produces marketable oil. Meanwhile, the areas for exploration and production are spread throughout the world. This book provides a complete overview of the stakes and challenges involved in oil and gas exploration and production. Following a historical review and a survey of the markets, the technical phases are covered, as are the evaluation of reserves, the estimation of investments and costs, the decision-making and control processes, and the accounting, legal and contractual environment for these activities. The book concludes with a discussion of the role of safety, and of environmental and ethical issues. This work, which is designed for readers concerned with the various aspects of the oil and gas upstream sector, is accessible to all. This second edition takes into account the huge changes in the oil and gas industry, particularly the large increases in oil prices, investments and costs observed since the first edition. This book is available in French under the title "Recherche et production du pétrole et du gaz". Contents : 1. Petroleum: a strategic product. 2. Oil and gas exploration and production. 3. Hydrocarbon reserves. 4. Investments and costs. 5. Legal, fiscal and contractual framework. 6. Decision-making on exploration and production. 7. Information, accounting and competition analysis. 8. Health, safety, the environment, ethics. Bibliography. Glossary. Index.

This volume will enable the reader to successfully undertake pre-project evaluations, especially in the areas of refining and petrochemistry. It encompasses all the essential steps: market analysis, comparative studies of technical and economic issues, sensitivity studies, sizing and costing of the equipment required for an industrial-scale plant, estimation of capital spending, calculation of costs and sales prices, etc. The first edition of this manual proved to be a very valuable teaching tool for universities and advanced engineering and business schools, both in France and abroad. It is essential for the rapid evaluation of the cost and profitability of proposed plants and of those already in operation. It has been widely used by engineers, consulting firms, and corporate research and development departments. Its status as the only current publication that covers all the steps involved in the economic evaluation of projects will render it particularly valuable to its users. It will quickly become indispensable to everyone whose job it is to evaluate the economic impact of the development, cancellation or reorientation of a project.Contents: 1. Market analysis. 2. The elements of economic calculation. 3. The determination of battery limits investments. Appendix 1. Functional modules method (FMM). Appendix 2. PrE-estime method. Bibliography. Index

The aim of this book is to help readers assimilate the concepts and methods for investment decision and project evaluation. It offers a wide range of exercises, problems and case studies taken from business, which are the fruit of many years of teaching, consulting and research. Some are direct application of basics, others require a higher degree of reflection for more complex applications. Our approach borrows elements from microeconomics, engineering economics and finance theory. This book is suited to both professionals and students who seek to master capital budgeting techniques. A

review of essential points is proposed at the beginning of each chapter and key methodological elements are recalled in the solutions.

Used lubricating oil is a valuable resource. However, it must be re-refined mainly due to the accumulation of physical and chemical contaminants in the oil during service. Refining Used Lubricating Oils describes the properties of used lubricating oils and presents ways these materials can be re-refined and converted into useful lubricants as well as other products. It provides an up-to-date review of most of the processes for used lubricating oil refining that have been proposed or implemented in different parts of the world, and addresses feasibility and criteria for selecting a particular process. The book begins with an overview of lubricating oil manufacturing, both petroleum-based and synthetic-based. It reviews the types and properties of lubricating oils and discusses the characteristics and potential of used lubricating oils. The authors describe the basic steps of used oil treatment including dehydration, distillation or solvent extraction, and finishing. They explore the combustion of used oil for use as fuel, covering chemistry and equipment, fuel oil properties, and combustion emissions. The book considers alternative processing options such as refinery processing and re-refining. It also reviews the major refining processes that have been suggested over the years for used oil. These include acid/clay, simple distillation, combinations of distillation and hydrogenation, solvent extraction, filtration, and coking processes. The book addresses economic, life cycle assessment, and other criteria for evaluating the attractiveness of an oil recycling project, examining various costs and presenting an economic evaluation method using an Excel spreadsheet that can be downloaded from the publisher’s website. The book concludes with a chapter offering insights on how to choose the most suitable process technology.

This unique book offers a comprehensive and integrated introduction to the five fundamental elements of life and society: energy, information, feedback, adaptation, and self-organization. It is divided into two parts. Part I is concerned with energy (definition, history, energy types, energy sources, environmental impact); thermodynamics (laws, entropy definitions, energy, branches of thermodynamics, entropy interpretations, arrow of time); information (communication and transmission, modulation–demodulation, coding–decoding, information theory, information technology, information science, information systems); feedback control (history, classical methodologies, modern methodologies); adaptation (definition, mechanisms, measurement, complex adaptive systems, complexity, emergence); and self-organization (definitions/opinions, self-organized criticality, cybernetics, self-organization in complex adaptive systems, examples in nature). In turn, Part II studies the roles, impacts, and applications of the five above-mentioned elements in life and society, namely energy (biochemical energy pathways, energy flows through food chains, evolution of energy resources, energy and economy); information (information in biology, biocomputation, information technology in office automation, power generation/distribution, manufacturing, business, transportation), feedback (temperature, water, sugar and hydrogen ion regulation, autocatalysis, biological modeling, control of hard/technological and soft/managerial systems), adaptation and self-organization (ecosystems, climate change, stock market, knowledge management, man-made self-organized controllers, traffic lights control).

This book is a valuable tool in understanding the dynamics of the oil industry from both a broad and specific economic perspective. It contains insights into the underlying features and mechanisms of the oil industry and its many branches, as well as a special emphasis on relevant international problems. It also provides a wealth of statistical information and should be of interest to all concerned with energy matters” (Euroil). “Petroleum Economics, by Jean Masseron, is a fine introductory text to the entire scope of activities and economic conditions facing the world-wide petroleum industry” (AAPG Bulletin). “This book, already used by many organizations, should be especially useful for engineers, economists and managers concerned with energy matters, and also those who, beyond the technical aspects, wish to acquire and in-depth understanding of the economic mechanisms in a vital sector for world development today” (JCPT). Contents : Introduction: Principal economic characteristics. I. Crude oil supply and demand. 1. The crude oil market. 2. Technical cost of exploration and production. 3. Tax and legal aspects. II. The economics of crude oil transportation. 1. Transportation by tanker. 2. Crude oil pipelining. III. Finished products supply: refining. 1. The search for optimal economic conditions. 2. Present unit location and cost of refinery processing. 3. Legal organization. IV. Demand and marketing of petroleum products. 1. The petroleum products in the principal consuming countries. 2. The distribution of petroleum products. 3. The marketing of petroleum products. V. Petrochemicals. 1. General characteristics. 2. Economics of two large basic units. 3. The market for the principal finished products. 4. Problems of today. VI. Natural gas. 1. Natural gas supply in the world. 2. Transportation. 3, International markets and prices. Conclusion: Energy and petroleum problems of the future. Bibliography.

Port Business is essential reading for all those with an interest in trade and transportation and the role of ports in the global supply chain. It discusses the various types of ports in existence, identifies the major ports per category, analyzes what the key business drivers are, describes their governance, how they are managed, which trends influence them, and what kind of impact they have on supply chains. Dr. Jürgen Sorgenfrei uses his significant consulting and project development experience within the international ports, shipping, rail & logistics sector, and in global economics, trade, analytics, and forecasting as well as in intermodal hinterland transport to provide this comprehensive overview of port management. The book is a combination of a strong background in principles and practical knowledge and is an indispensable resource for those interested in maritime economics. .

Future Energy: Improved, Sustainable and Clean Options for Our Planet, Third Edition provides scientists and decision-makers with the knowledge they need to understand the relative importance and magnitude of various energy production methods in order to make the energy decisions necessary for sustaining development and dealing with climate change. The third edition of Future Energy looks at the present energy situation and extrapolates to future scenarios related to global warming and the increase of carbon dioxide and other greenhouse gases in the atmosphere. This thoroughly revised and updated edition contains over 40 chapters on all aspects of future energy, with each chapter updated and expanded by expert scientists and engineers in their respective fields. Provides readers with an up-to-date overview of available energy options, both traditional and renewable, as well as the necessary tools needed to make informed decisions Covers a wide spectrum of future energy resources presented in a single book with chapters written by experts from each particular field Includes many new chapters that cover topics on conventional oil and fossil fuels, a new section on energy storage, and a look at new energy

For the past half-century, a debate has raged over when ¿peak oil¿ will occur ¿ the point at which output can no longer increase and production begins to level off or gradually decline. Determining how long the oil supply will last has become even more pressing because the world¿s energy supply still relies heavily on oil, and global energy demand is expected to rise steeply over the next twenty years. This article seeks to bring the peak oil debate into focus. The author provides definitions of frequently used terms, delineating types of reserves and conventional versus non-conventional resources. She also discusses how technological innovations, gov¿t. policies, and prices influence oil production. Illus. A print on demand report.

With frequent discoveries of energy resources in remote and undeveloped areas, the importance of transnational oil and gas pipelines is set to grow ever more prominent. This study dissects the diplomacy and bargaining power of the transit country and the shifting economic relations involved in cross-border energy transportation.

Gasification is one of the most important advancements that has ever occurred in energy production. Using this technology, for example, coal can be gasified into a product that has roughly half the carbon footprint of coal. On a large scale, gasification could be considered a revolutionary development, not only prolonging the life of carbon-based fuels, but making them “greener” and cleaner. As long as much of the world still depends on fossil fuels, gasification will be an environmentally friendlier choice for energy production. But gasification is not just used for fossil fuels. Waste products that would normally be

dumped into landfills or otherwise disposed of can be converted into energy through the process of gasification. The same is true of biofeedstocks and other types of feedstocks, thus making another argument for the widespread use of gasification. The Handbook of Gasification Technology covers all aspects of the gasification, in a “one-stop shop,” from the basic science of gasification and why it is needed to the energy sources, processes, chemicals, materials, and machinery used in the technology. Whether a veteran engineer or scientist using it as a reference or a professor using it as a textbook, this outstanding new volume is a must-have for any library.

The field of engineering is becoming increasingly interdisciplinary, and there is an ever-growing need for engineers to investigate engineering and scientific resources outside their own area of expertise. However, studies have shown that quality information-finding skills often tend to be lacking in the engineering profession. Using the Engineerin