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# Amines As Gas Sweetening Agents

## Aalborg Universitet

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Petroleum Science and Technology  
Shale Oil and Gas Production Processes  
Literature Search  
Air Pollution Abstracts  
Petroleum and Gas Field Processing  
Handbook of Gasification Technology  
Asinger's Vision Today  
Gas Conditioning and Processing  
Fundamentals of Natural Gas Processing  
Environmental Issues  
Technology and Engineering Design  
Energy Efficient Solvents for CO<sub>2</sub> Capture by Gas-Liquid Absorption  
Gas Sweetening and Processing Field Manual  
Compounds, Blends and Advanced Solvent Systems  
Methanol: The Basic Chemical and Energy Feedstock of the Future  
Fundamentals and Modeling  
Multifunctional Materials  
Encyclopedia of Renewable Energy  
Petroleum and Gas Field Processing  
Air Pollution Abstracts  
Natural Gas Processing  
Negative Emissions Technologies and Reliable Sequestration  
Carbon Dioxide Capture and Storage  
Science, Processes, and Applications  
Organic Pollutants in the Water Cycle  
Shale Oil and Gas Handbook  
10-12 January, 2009 - Qatar  
Properties, Occurrence, Analysis and Environmental Relevance of Polar Compounds  
Carbon Dioxide Chemistry  
Absorption-Based Post-Combustion Capture of Carbon Dioxide  
A Basic Handbook  
Special Report of the Intergovernmental Panel on Climate Change  
Oilfield Chemistry and its Environmental Impact  
Natural Gas  
Gas Conditioning and Processing: Gas and liquid sweetening  
Carbon Dioxide Chemistry, Capture and Oil Recovery  
Gas Purification  
11-12 January 1988, Los Angeles, California  
A Research Agenda

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## **JACK REYNOLDS**

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### **Petroleum Science and Technology**

#### Natural GasA Basic Handbook

This book reviews and characterises promising single-compound solvents, solvent blends and advanced solvent systems suitable for CO<sub>2</sub> capture applications using gas-liquid absorption. Focusing on energy efficient solvents with minimal adverse environmental impact, the contributions included analyse the major technological advantages, as well as research and development challenges of promising solvents and solvent systems in various sustainable CO<sub>2</sub> capture applications. It provides a valuable source of information for undergraduate and postgraduate students, as well as for chemical engineers and energy specialists.

#### Shale Oil and Gas Production Processes

#### Society of Photo Optical

IPCC Report on sources, capture, transport, and storage of CO<sub>2</sub>, for researchers, policy-makers and engineers.

**Literature Search** John Wiley & Sons  
Acquire the tools and techniques that will help meet the world's growing natural gas demand. Handbook of Natural Gas Transmission and Processing, 2nd Edition gives engineers and managers complete coverage of natural gas transmission and processing in the most rapidly growing sector to the petroleum industry. Emphasizing the practical aspects of natural gas production over the theoretical, the authors provide a unique discussion of new technologies that are energy efficient and environmentally appealing

at the same time. This 2nd edition examines ways to select the best processing route for optimal design of gas-processing plants and includes three new chapters on dynamics of process controls, process modeling and simulation and optimal design of gas processing plants. Both Chapter 7 (Acid Gas Treating) and Chapter 9 (Natural Gas Dehydration) are heavily revised. The objective of this work is to provide plant designers and owners/operators methods to decrease construction costs and total cost of ownership while addressing reliability and availability.

#### Air Pollution Abstracts Gulf Professional Publishing

This massively updated and expanded fifth edition is the most complete, authoritative engineering treatment of the dehydration and gas purification processes used in industry today. Of great value to design and operations engineers, it gives practical process and equipment design descriptions, basic data, plant performance results, and other detailed information on gas purification processes and hardware. This latest edition incorporates all significant advances in the field since 1985. You will find major new chapters on the rapidly expanding technologies of nitrogen oxide control, with discussions of regulatory requirements and available processes; absorption in physical solvents, covering single component and mixed solvent systems; and membrane permeation, with emphasis on the gas purification applications of membrane units. In addition, new sections cover areas of strong current interest, particularly liquid hydrocarbon treating, Claus plant tail gas treating, thermal oxidation of volatile organic compounds, and sulfur scavenging processes. This volume brings you expanded coverage

of alkanolamines for hydrogen sulfide and carbon dioxide removal, the removal and use of ammonia in gas purification, the use of alkaline salt solutions for acid gas removal, and the use of water to absorb gas impurities. The basic technologies and all significant advances in the following areas are thoroughly described: sulfur dioxide removal and recovery processes, processes for converting hydrogen sulfide to sulfur, liquid phase oxidation processes for hydrogen sulfide removal, the absorption of water vapor by dehydrating solutions, gas dehydration and purification by adsorption, and the catalytic and thermal conversion of gas impurities.

Petroleum and Gas Field Processing  
Elsevier

There is a renaissance that is occurring in chemical and process engineering, and it is crucial for today's scientists, engineers, technicians, and operators to stay current. With so many changes over the last few decades in equipment and processes, petroleum refining is almost a living document, constantly needing updating. With no new refineries being built, companies are spending their capital re-tooling and adding on to existing plants. Refineries are like small cities, today, as they grow bigger and bigger and more and more complex. A huge percentage of a refinery can be changed, literally, from year to year, to account for the type of crude being refined or to integrate new equipment or processes. This book is the most up-to-date and comprehensive coverage of the most significant and recent changes to petroleum refining, presenting the state-of-the-art to the engineer, scientist, or student. Useful as a textbook, this is also an excellent, handy go-to reference for the veteran engineer, a volume no chemical or process engineering library

should be without. Written by one of the world's foremost authorities, this book sets the standard for the industry and is an integral part of the petroleum refining renaissance. It is truly a must-have for any practicing engineer or student in this area.

### **Handbook of Gasification**

**Technology** Gulf Professional Publishing

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

*Asinger's Vision Today* CRC Press

*Fundamentals of Natural Gas Processing* explores the natural gas industry from the wellhead to the marketplace. It compiles information from the open literature, meeting proceedings, and experts to accurately depict the state of gas processing technology today and highlight technologies that could become important in the future. This book cov

*Gas Conditioning and Processing* Elsevier

Provides comprehensive coverage of corrosion inhibitors in the oil and gas industries Considering the high importance of corrosion inhibitor development for the oil and gas sectors, this book provides a thorough overview of the most recent advancements in this field. It systematically addresses corrosion inhibitors for various applications in the oil and gas value chain, as well as the fundamentals of corrosion inhibition and interference of inhibitors with co-additives. *Corrosion Inhibitors in the Oil and Gas Industries* is presented in three parts. The first part on *Fundamentals and Approaches* focuses on principles and processes in the oil and gas industry, the types of corrosion encountered and their control methods, environmental factors affecting inhibition, material selection strategies, and economic aspects of corrosion. The second part on *Choice of Inhibitors* examines corrosion inhibitors for acidizing processes, inhibitors for sweet and sour corrosion, inhibitors in refinery operations, high-temperature corrosion inhibitors, inhibitors for challenging corrosive environments, inhibitors for microbiologically influenced corrosion, polymeric inhibitors, vapor

phase inhibitors, and smart controlled release inhibitor systems. The last part on *Interaction with Co-additives* looks at industrial co-additives and their interference with corrosion inhibitors such as antiscalants, hydrate inhibitors, and sulfide scavengers. -Presents a well-structured and systematic overview of the fundamentals and factors affecting corrosion -Acts as a handy reference tool for scientists and engineers working with corrosion inhibitors for the oil and gas industries -Collectively presents all the information available on the development and application of corrosion inhibitors for the oil and gas industries -Offers a unique and specific focus on the oil and gas industries *Corrosion Inhibitors in the Oil and Gas Industries* is an excellent resource for scientists in industry as well as in academia working in the field of corrosion protection for the oil and gas sectors, and will appeal to materials scientists, electrochemists, chemists, and chemical engineers.

*Fundamentals of Natural Gas Processing*

BoD - Books on Demand

ENCYCLOPEDIA OF RENEWABLE ENERGY

Written by a highly respected engineer and prolific author in the energy sector, this is the single most comprehensive, thorough, and up-to-date reference work on renewable energy. The world's energy industry is and has always been volatile, sometimes controversial, with wild swings upward and downward. This has, historically, been mostly because most of our energy has come from fossil fuels, which is a finite source of energy. Every so often, a technology comes along, like hydrofracturing, that is a game-changer. But is it, really? Aren't we just delaying the inevitable with these temporary price fixes The only REAL game-changer is renewable

energy. For decades, renewable energy sources have been sought, developed, and studied. Sometimes wind is at the forefront, sometimes solar, and, for the last decade or so, there has been a surge in interest for biofeedstocks and biofuels. There are also the “old standbys” of nuclear and geothermal energy, which have both been around for a very long time. This groundbreaking new volume presents these topics and trends in an encyclopedic format, as a go-to reference for the engineer, scientist, student, or even layperson who works in the industry or is simply interested in the topic. Compiled by one of the world’s best-known and respected energy engineers, this is the most comprehensive and up-to-date encyclopedia of renewable energy ever written, a must-have for any library.

**Encyclopedia of Renewable Energy: Is** written in an encyclopedic style, covering every aspect of renewable energy, including wind, solar, and many other topics Offers a comprehensive coverage of the industry, from the chemical processes of biofeedstocks and biofuels to the machinery and equipment used in the production of fuel and power generation Is filled with workable examples and designs that are helpful for practical applications Covers the state of the art, an invaluable resource for any engineer Audience Engineers across a variety of industries, including wind, solar, process engineering, waste utilization for fuels, and many others, such as process engineers, chemical engineers, electrical engineers, petroleum engineers, civil engineers, and the technicians and other scientists who work in this field

John Wiley & Sons  
Written by a scientist and researcher

with more than 25 years of experience in the field, this serves as a complete guide to catalyst activity loss during the hydroprocessing of heavy oils. Explores the physical and chemical properties of heavy oils and hydroprocessing catalysts; the mechanisms of catalyst deactivation; catalyst characterization by a variety of techniques and reaction conditions; laboratory and commercial information for model validations; and more Demonstrates how to develop correlations and models for a variety of reaction scales with step-by-step descriptions and detailed experimental data Contains important implications for increasing operational efficiencies within the petroleum industry An essential reference for professionals and researchers working in the refining industry as well as students taking courses on chemical reaction engineering

**Environmental Issues** Springer Science & Business Media

**Natural Gas: A Basic Handbook, Second Edition** provides the reader with a quick and accessible introduction to a fuel source/industry that is transforming the energy sector. Written at an introductory level, but still appropriate for engineers and other technical readers, this book provides an overview of natural gas as a fuel source, including its origins, properties and composition. Discussions include the production of natural gas from traditional and unconventional sources, the downstream aspects of the natural gas industry. including processing, storage, and transportation, and environmental issues and emission controls strategies. This book presents an ideal resource on the topic for engineers new to natural gas, for advisors and consultants in the natural gas industry, and for technical readers

interested in learning more about this clean burning fuel source and how it is shaping the energy industry. Updated to include newer sources like shale gas Includes new discussions on natural gas hydrates and flow assurance Covers environmental issues Contain expanded coverage of liquefied natural gas (LNG) Technology and Engineering Design John Wiley & Sons

Volume 1 of the book discusses such topics as absorption, chromatography, crystallization, microcapsules, adsorbent methods, chemical complexing, parametric pumping, molecular sieve adsorption, enzyme membrane systems, immobilized solvent membranes and liquid surfactant membranes.

Energy Efficient Solvents for CO<sub>2</sub> Capture by Gas-Liquid Absorption Gulf Professional Publishing

This book derives from a workshop held in Sweden to examine the environmental implications of the dramatic increase in carbon dioxide levels in the atmosphere in the last 50 years and to find ways of mitigating greenhouse gas emissions. This multi-disciplinary approach makes it essential reading not only for chemists but for all engineers, biologists and environmentalists concerned with this crucially important issue.

**Gas Sweetening and Processing Field Manual** Gulf Professional Publishing

Natural gas is considered the dominant worldwide bridge between fossil fuels of today and future resources of tomorrow. Thanks to the recent shale boom in North America, natural gas is in a surplus and quickly becoming a major international commodity. Stay current with conventional and now unconventional gas standards and procedures with *Natural Gas Processing: Technology and Engineering Design*.

Covering the entire natural gas process, Bahadori's must-have handbook provides everything you need to know about natural gas, including:

Fundamental background on natural gas properties and single/multiphase flow factors How to pinpoint equipment selection criteria, such as US and international standards, codes, and critical design considerations A step-by-step simplification of the major gas processing procedures, like sweetening, dehydration, and sulfur recovery

Detailed explanation on plant engineering and design steps for natural gas projects, helping managers and contractors understand how to schedule, plan, and manage a safe and efficient processing plant Covers both conventional and unconventional gas resources such as coal bed methane and shale gas Bridges natural gas processing with basic and advanced engineering design of natural gas projects including real world case studies Digs deeper with practical equipment sizing calculations for flare systems, safety relief valves, and control valves

Compounds, Blends and Advanced Solvent Systems John Wiley & Sons Equipment and process trouble-shooting techniques.

*Methanol: The Basic Chemical and Energy Feedstock of the Future* Woodhead Publishing

Fossil fuels still need to meet the growing demand of global economic development, yet they are often considered as one of the main sources of the CO<sub>2</sub> release in the atmosphere. CO<sub>2</sub>, which is the primary greenhouse gas (GHG), is periodically exchanged among the land surface, ocean, and atmosphere where various creatures absorb and produce it daily. However, the balanced processes of producing and consuming

the CO<sub>2</sub> by nature are unfortunately faced by the anthropogenic release of CO<sub>2</sub>. Decreasing the emissions of these greenhouse gases is becoming more urgent. Therefore, carbon sequestration and storage (CSS) of CO<sub>2</sub>, its utilization in oil recovery, as well as its conversion into fuels and chemicals emerge as active options and potential strategies to mitigate CO<sub>2</sub> emissions and climate change, energy crises, and challenges in the storage of energy.

#### **Fundamentals and Modeling** CRC Press

Aimed at students and professionals, this book covers every major aspect of petroleum: the origin of fossil hydrocarbons and their chemical/physical properties; discovering hydrocarbon reserves; recovering oil, gas, and bitumen; purifying gas; the chemical and physical characterization of crude oil; refining crudes into fuels and lubricants; and converting simple chemicals into solvents, polymers, fibers, rubbers, coatings, and myriad other products, including pharmaceuticals. Readers will learn how the industry operates, from "upstream" exploration and production, "midstream" transportation to "downstream" refining, and manufacturing of finished products. The book also contains unique chapters on midstream operations, learnings from major accidents, and safety/environmental laws and regulations. It builds on the authors' previous books and teaching material from a highly rated course that is taught at the Florida A&M University/Florida State University (USA).

#### **Multifunctional Materials** Springer

This first in-depth and comprehensive reference on the most pertinent polar contaminant classes and their behavior

in the whole water cycle includes, among others, industrial chemicals, consumer products, polar herbicides and pharmaceuticals. All chapters are uniformly structured, covering properties, pollution sources, occurrence in wastewater, surface water, and groundwater as well as water treatment aspects, while ecotoxicological and assessment aspects are also covered. Among the authors are leading experts in their relevant fields, many of whom provide here groundbreaking research results. The result is an up-to-date information source for researchers and professionals working in water quality monitoring, water supply, or wastewater treatment, as well as environmental and water chemists, geochemists, ecologists, chemists and engineers.

#### Encyclopedia of Renewable Energy

Butterworth-Heinemann

Natural Gas A Basic Handbook Gulf Professional Publishing

#### *Petroleum and Gas Field Processing* CRC Press

The immediate product extracted from oil and gas wells consists of mixtures of oil, gas, and water that is difficult to transport, requiring a certain amount of field processing. This reference analyzes principles and procedures related to the processing of reservoir fluids for the separation, handling, treatment, and production of quality petroleum oil and gas products. It details strategies in equipment selection and system design, field development and operation, and process simulation and control to increase plant productivity and safety and avoid losses during purification, treatment, storage, and export. Providing guidelines for developing efficient and economical treatment systems, the book features solved design examples that demonstrate the

application of developed design equations as well as review problems

and exercises of key engineering concepts in petroleum field development and operation.

Best Sellers - Books :

- [Why A Daughter Needs A Dad: Celebrate Your Father Daughter Bond This Father's Day With This Special Picture Book! \(always In My Heart\) By Gregory E. Lang](#)
- [Verity By Colleen Hoover](#)
- [A Letter From Your Teacher: On The First Day Of School By Shannon Olsen](#)
- [The Four Agreements: A Practical Guide To Personal Freedom \(a Toltec Wisdom Book\) By Don Miguel Ruiz](#)
- [Remarkably Bright Creatures: A Read With Jenna Pick](#)
- [Playground](#)
- [Atomic Habits: An Easy & Proven Way To Build Good Habits & Break Bad Ones By James Clear](#)
- [Fahrenheit 451 By Ray Bradbury](#)
- [Lessons In Chemistry: A Novel By Bonnie Garmus](#)
- [Why A Daughter Needs A Dad: Celebrate Your Father Daughter Bond This Father's Day With This Special Picture Book! \(always In My Heart\) By Gregory E. Lang](#)