Api Technical Data Petroleum Refining

Oils and Gas JournalJournal of Petroleum TechnologyAnalytical Advances for Hydrocarbon ResearchPetroleum RefiningRefinery Energy ProfileEnergy ProgressPetroleum RefiningAbstracts of PapersChemical Engineering ThermodynamicsSociety of Petroleum Engineers JournalModeling and Simulation of Catalytic Reactors for Petroleum RefiningBook of AbstractsProceedingsProceedings-Refining DepartmentHydrocarbon ProcessingNational Union CatalogEncyclopedia of Chemical Processing and DesignMaterials Research and StandardsTuckerPetroleum Refinery Process ModelingPhysical Constants of Hydrocarbon and Non-hydrocarbon CompoundsActes Et DocumentsPetroleum Refining in Nontechnical LanguageHandbook of Petroleum ProcessingRefining Processes HandbookProceedingsPublications, Programs & ServicesAmerican Petroleum IndustryProceedingsFundamentals of Petroleum RefiningIndustrial Chemical Process Design, 2nd EditionTechnical support document for the 2004 effluent guidelines program planOil and Gas Production Handbook: An Introduction to Oil and Gas ProductionDictionary of Oil, Gas, and Petrochemical ProcessingCrude Oil ChemistryIndustrial & Engineering Chemistry Process Design and DevelopmentThe National Union Catalogs, 1963-Advances in Engineering Fluid Mechanics: Mixed-Flow HydrodynamicsCharacterization and Properties of Petroleum FractionsPetroleum Refining Design and

Applications Handbook

Oils and Gas Journal

Fundamentals of Petroleum Refining presents the fundamentals of thermodynamics and kinetics, and it explains the scientific background essential for understanding refinery operations. The text also provides a detailed introduction to refinery engineering topics, ranging from the basic principles and unit operations to overall refinery economics. The book covers important topics, such as clean fuels, gasification, biofuels, and environmental impact of refining, which are not commonly discussed in most refinery textbooks. Throughout the source, problem sets and examples are given to help the reader practice and apply the fundamental principles of refining. Chapters 1-10 can be used as core materials for teaching undergraduate courses. The first two chapters present an introduction to the petroleum refining industry and then focus on feedstocks and products. Thermophysical properties of crude oils and petroleum fractions, including processes of atmospheric and vacuum distillations, are discussed in Chapters 3 and 4. Conversion processes, product blending, and alkylation are covered in chapters 5-10. The remaining chapters discuss hydrogen production, clean fuel production, refining economics and safety, acid gas treatment and removal, and methods for environmental and effluent treatments. This source can serve both professionals and students (on undergraduate and graduate levels) of Chemical and Petroleum Engineering, Chemistry, and Chemical

Technology. Beginners in the engineering field, specifically in the oil and gas industry, may also find this book invaluable. Provides balanced coverage of fundamental and operational topics Includes spreadsheets and process simulators for showing trends and simulation case studies Relates processing to planning and management to give an integrated picture of refining

Journal of Petroleum Technology

In industry, miscommunication can cause frustration, create downtime, and even trigger equipment failure. By providing a common ground for more effective discourse, the Dictionary of Oil, Gas, and Petrochemical Processing can help eliminate costly miscommunication.An essential resource for oil, gas, and petrochemical industry professionals, enginee

Analytical Advances for Hydrocarbon Research

"The most complete, up-to-date, problem-solving toolkit for chemical engineers and process designers. Industrial Chemical Process Design, Second Edition provides a step-by-step methodology and 25 downloadable, customizable, needs-specific software applications that offer quick, accurate solutions to complex process design problems. These applications uniquely fill the gaps left by large, very expensive commercial process simulation software packages used to select, size, and design industrial chemical process equipment. Written by a hands-on industry

consultant and featuring more than 200 illustrations, this book thoroughly details: Sizing and cost estimating of process unit operation equipment Design and rating of fractionation equipment and three-phase separation equipment Chemical optimization Commercial distillation Packaged plant cost analysis Estimating cost for modular packages Performing operations such as liquid-liquid extraction and gas liquid separation vessel sizing and rating Green engineering New to the Second Edition: Added focus on sustainability with new green engineering coverage: crude oil database; vegetable oils and plant greenhouse production for use in automobile fuels; gasoline and diesel fuel database; greenhouse fuels; water removal treatment in three-phase vessel design New focus on engineering economics Simplified shell/tube design method and improved shell/tube exchanger software improvements Fluid flow coverage includes both single- and two-phase flow and the very desirable addition of complete process engineering of NOx removal and catalytic SCR reactor processes necessary in all electric generator power plants and refinery furnace systems (per mandatory EPA regulations) Coverage of the Fischer-Tropsch process converting natural methane gas to crude oil products, liquids, gasoline, diesel, and jet fuel - all sulfur-free! Includes a plan to decrease reliance on crude oil imports Contains a packaged cost analysis natural gas-to-liquids plant turn-key software program "--

Petroleum Refining

Refinery Energy Profile

Energy Progress

Petroleum Refining

The notebook is beautifully produced. Perfect for personal use or for an affortable gift. Great gift for your Friend, Boyfriend, Boss whose name is Tucker. Get yours today! Visit our author page "Johny Style Publishing" for more from this series. To easily find the name you are interested in follow a certain pattern. Write : "name + notebook + simple gift " in search option in amazon. For example you are interested in name "Johnny". So you just write in search window: "Johnny notebook simple gift ". If you still can not find it on the first page, probably is not available yet. We're constantly working on new names so you can try again later. Specifications: Cover Finish: Matte Dimensions: 6" x 9" (15.24 x 22.86 cm) Interior: Blank, White Paper, lined Pages: 110

Abstracts of Papers

Chemical Engineering Thermodynamics

Society of Petroleum Engineers Journal

Modeling and Simulation of Catalytic Reactors for Petroleum Refining

Book of Abstracts

Includes entries for maps and atlases.

Proceedings

Determining the composition and properties of complex hydrocarbon mixtures in petroleum, synthetic fuels, and petrochemical products usually requires a battery of analytical techniques that detect and measure specific features of the molecules, such as boiling point, mass, nuclear magnetic resonance frequencies, etc. there have always been a need for new and improved analytical technology to better understand hydrocarbon chemistry and processes. This book provides an overview of recent advances and future challenges in modern analytical techniques that are commonly used in hydrocarbon applications. Experts in each of the areas covered have reviewed the state of the art, thus creating a book that will be useful to readers at all levels in academic, industry, and research institutions.

Proceedings-Refining Department

Hydrocarbon Processing

A comprehensive review of the theory and practice of

the simulation and optimization of the petroleum refining processes Petroleum Refinery Process Modeling offers a thorough review of how to quantitatively model key refinery reaction and fractionation processes. The text introduces the basics of dealing with the thermodynamics and physical property predictions of hydrocarbon components in the context of process modeling. The authors - three experts on the topic - outline the procedures and include the key data required for building reaction and fractionation models with commercial software. The text shows how to filter through the extensive data available at the refinery and using plant data to begin calibrating available models and extend the models to include key fractionation sub-models. It provides a sound and informed basis to understand and exploit plant phenomena to improve yield, consistency, and performance. In addition, the authors offer information on applying models in an overall refinery context through refinery planning based on linear programming. This important resource: -Offers the basic information of thermodynamics and physical property predictions of hydrocarbon components in the context of process modeling -Uses the key concepts of fractionation lumps and physical properties to develop detailed models and workflows for atmospheric (CDU) and vacuum (VDU) distillation units -Discusses modeling FCC, catalytic reforming and hydroprocessing units Written for chemical engineers, process engineers, and engineers for measurement and control, this resource explores the advanced simulation tools and techniques that are available to support experienced and aid new

operators and engineers.

National Union Catalog

Encyclopedia of Chemical Processing and Design

Materials Research and Standards

Tucker

Petroleum Refinery Process Modeling

The letter symbols for the concepts most widely used in chemical engineering are listed on the following pages.

Physical Constants of Hydrocarbon and Non-hydrocarbon Compounds

Actes Et Documents

Petroleum Refining in Nontechnical Language

Using analogies, graphs, formulas and illustrations,

the author overviews key topics in the refining industry for professionals in finance and marketing. The third edition reflects changes in petroleum processing and the impact of environmental regulation. Annotation c. Book News, Inc., Portland, OR

Handbook of Petroleum Processing

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.

Refining Processes Handbook

Proceedings

For the first time, an essential reference for the multi-billion dollar petrochemical industry that covers the complex topics involved in refining.

Publications, Programs & Services

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.

American Petroleum Industry

Proceedings

Fundamentals of Petroleum Refining

This first volume in the series previously titled Encyclopedia of Fluid Mechanics covers multiphase systems and the transport problems associated with turbulent mixing, defining a fluid as any material displaying liquid-like behavior under the influence of deformation forces. Reports on research and application of the engineering principles associated with flow systems, highlighting topics such as jet mixing; mechanical agitation; fluidized bed reactors; and multiphase chemical reactors. Includes numerous bandw diagrams. Useful as a reference for researchers and engineers. Annotation copyright by Book News, Inc., Portland, OR

Industrial Chemical Process Design, 2nd Edition

Technical support document for the 2004 effluent guidelines program plan

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.

Oil and Gas Production Handbook: An Introduction to Oil and Gas Production

Dictionary of Oil, Gas, and Petrochemical Processing

Modeling and Simulation of Catalytic Reactors for Petroleum Refining deals with fundamental descriptions of the main conversion processes employed in the petroleum refining industry: catalytic hydrotreating, catalytic reforming, and fluid catalytic cracking. Common approaches for modeling of catalytic reactors for steady-state and dynamic simulations are also described and analyzed. Aspects such as thermodynamics, reaction kinetics, process variables, process scheme, and reactor design are discussed in detail from both research and commercial points of view. Results of simulation with the developed models are compared with those determined at pilot plant scale as well as commercial practice. Kinetics data used in the reactor model are either taken from the literature or obtained under controlled experiments at the laboratory.

Crude Oil Chemistry

Crude Oil Chemistry is foremost a scientifically exact guide to the full family of classical and modern analytical and process technologies in petroleum

refining. In widening its vision also to incorporate a geological history of petroleum formation, present-day geopolitical and economic issues, and approaches to redress and improve the delicate ties between the petroleum industry and the environment, this reference succeeds as a total representation of the factors going into the chemistry of crude oil and their outward bound ramifications. The book thoroughly evaluates the chemistry and processing of low API gravity high-sulfur heavy crude oil increasingly relied on in the industry.

Industrial & Engineering Chemistry Process Design and Development

This third edition presents the latest developments in the fundamental aspects of petroleum refining technology and economics, discussing both the physical and chemical properties of petroleum, petroleum products and oxygenate fuel additives. It examines current environmental requirements and downstream implications of the Clean Air Act regarding processing, fuels and product specifications. End-of-chapter problems, a case study and sample illustrations are included.

The National Union Catalogs, 1963-

Advances in Engineering Fluid Mechanics: Mixed-Flow Hydrodynamics

Characterization and Properties of Petroleum Fractions

This extensively updated second edition of the already valuable reference targets research chemists and engineers who have chosen a career in the complex and essential petroleum industry, as well as other professionals just entering the industry who seek a comprehensive and accessible resource on petroleum processing. The handbook describes and discusses the key components and processes that make up the petroleum refining industry. Beginning with the basics of crude oils and their nature, it continues with the commercial products derived from refining and with related issues concerning their environmental impact. More in depth coverage of many topics previously covered in the first edition, such as hydraulic fracturing or fracking as it is often termed, help ensure this reference remains a relevant and up-to- date resource. At its core is a complete overview of the processes that make up a modern refinery, plus a brief history of the development of processes. Also described in detail are design techniques, operations and in the case of catalytic units, the chemistry of the reaction routes. These discussions are supported by calculation procedures and examples, which enable readers to use today's simulation-software packages. The handbook also covers off-sites and utilities, as well as environmental and safety aspects relevant to the industry. The chapter on refinery planning covers both operational planning and the decision making procedures for new or revamped processes. Major equipment used in the

industry is reviewed along with details and examples of the process specifications for each. An extensive glossary and dictionary of the terms and expressions used in petroleum refining, plus appendices supplying data such as converging factors and selected crude oil assays, as well as an example of optimizing a refinery configuration using linear programming are all included to aid the reader. The 2nd edition of the Handbook of Petroleum Processing is an indispensable desk reference for chemists and engineers as well as an essential part of the libraries of universities with a chemical engineering faculty and oil refineries and engineering firms performing support functions or construction.

Petroleum Refining Design and Applications Handbook