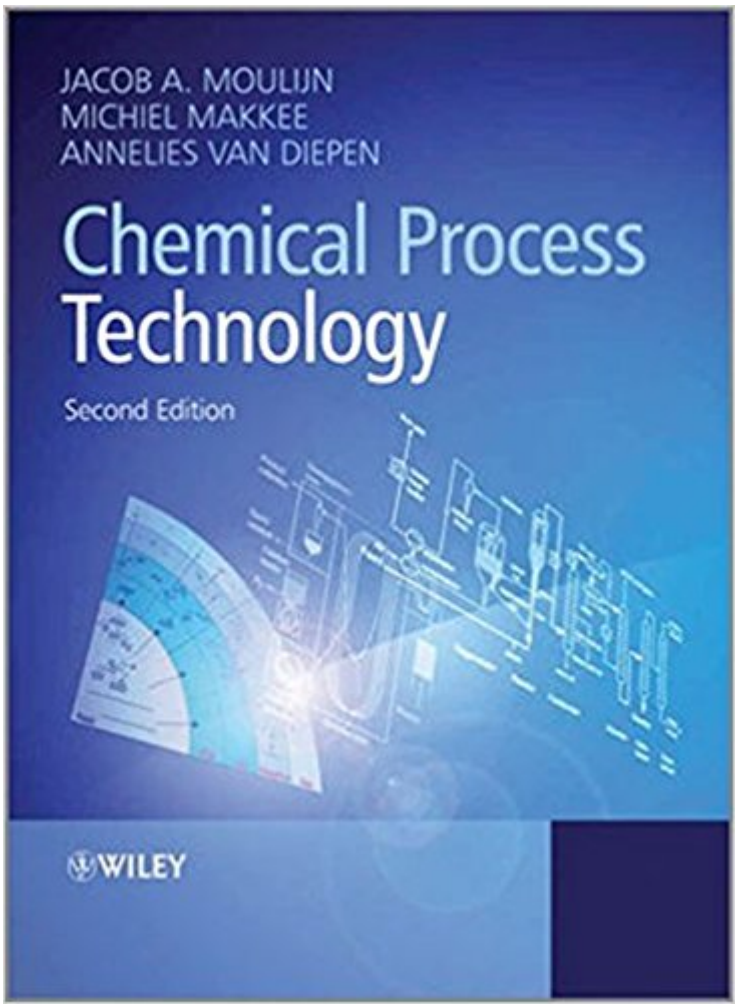
Chemical Process Technology



Synopsis

With a focus on actual industrial processes, e.g. the production of light alkenes, synthesis gas, fine chemicals, polyethene, it encourages the reader to think â œout of the boxâ • and invent and develop novel unit operations and processes. Reflecting todayâ ™s emphasis on sustainability, this edition contains new coverage of biomass as an alternative to fossil fuels, and process intensification. The second edition includes: New chapters on Process Intensification and Processes for the Conversion of Biomass Updated and expanded chapters throughout with 35% new material overall Text boxes containing case studies and examples from various different industries, e.g. synthesis loop designs, Sasol I Plant, Kaminsky catalysts, production of Ibuprofen, click chemistry, ammonia synthesis, fluid catalytic cracking Questions throughout to stimulate debate and keep students awake! Richly illustrated chapters with improved figures and flow diagrams Chemical Process Technology, Second Edition is a comprehensive introduction, linking the fundamental theory and concepts to the applied nature of the subject. It will be invaluable to students of chemical engineering, biotechnology and industrial chemistry, as well as practising chemical engineers. Â From reviews of the first edition: â œThe authors have blended process technology, chemistry and thermodynamics in an elegant mannerâ | Overall this is a welcome addition to books on chemical technology.â • â “ The Chemist â œImpressively wide-ranging and comprehensiveâ | an excellent textbook for students, with a combination of fundamental knowledge and technology.â • â “ Chemistry in Britain (now Chemistry World)

Book Information

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Customer Reviews

â œIn conclusion, this excellent textbook is highly recommended to those readers wishing to have up-to-date knowledge of the chemical industry and its processes. Organic chemists, in particular, will learn the chemical engineerâ ™s approach to process design and process development and will appreciate the differences and hopefully understand how the methods used for bulk chemicals can be used for more complex molecules book.â •Â (Organic Process Research & Development, 1 September 2014) â œThe book could serve as a valuable text for lower-level chemical engineering students, but it could also be useful to professionals in biotechnology and industrial chemistry.Â Summing Up: Recommended.Â All academic, two-year technical program, and professional engineering collections.â •Â (Choice, 1 December 2013) Â

Chemical process technology is a broad area that brings together expertise in chemical engineering, chemistry and biotechnology, as well as project management, and the economic and environmental aspects of process and product development. This book provides an essential bridge between the chemical sciences and the chemical industry. With a focus on actual industrial processes, e.g. the production of light alkenes, synthesis gas, fine chemicals, polyethene, it encourages the reader to think â œout of the boxâ • and invent and develop novel unit operations and processes. Reflecting todayâ ™s emphasis on sustainability, this edition contains new coverage of biomass as an alternative to fossil fuels, and process intensification. The second edition includes: New chapters on Process Intensification and Processes for the Conversion of Biomass Updated and expanded chapters throughout with 35% new material overall Text boxes containing case studies and examples from various different industries, e.g. synthesis loop designs, Sasol I Plant, Kaminsky catalysts, production of Ibuprofen, click chemistry, ammonia synthesis, fluid catalytic cracking Questions throughout to stimulate debate and keep students awake! Richly illustrated chapters with improved figures and flow diagrams Chemical Process Technology Second Edition is a comprehensive introduction, linking the fundamental theory and concepts to the applied nature of the subject. It will be invaluable to students of chemical engineering, biotechnology and industrial chemistry, as well as practising chemical engineers. Praise for the best-selling first edition From The Chemist, Summer 2003 â œThe authors have blended process technology, chemistry and thermodynamics in an elegant mannerâ | Overall this is a welcome addition to books on chemical technology.â • From Chemistry in Britain (now Chemistry World), July 2001 â œImpressively wide-ranging and comprehensive... an excellent textbook for students, with a combination of fundamental knowledge and technology.â •

Best introductory textbook for chemical process technology. I hope it gets even better with future editions.

Very clean and good bok. Thx.

Please note I'm reviewing the 2001 printing (obtained at the local library) -- but it seems unlikely that the book has changed fundamentally.This book is a SURVEY of various processes for large-scale chemical engineering, NOT a textbook. It has lots and lots of examples of how specific chemicals are produced, with schematic diagrams of the reaction hardware. But if you don't already know how everything works, you will not learn it here. A large number of reaction schemes are shown, but no explanation is provided about why they work the way they do. Numerous statements are made about mass transfer and fluid flow, but the book does not mention either the Reynolds or Peclet numbers that characterize the regimes of operation with respect to these processes. The Thiele modulus, important for describing simultaneous diffusion and reaction in narrow channels characteristic of catalysis, is simply pulled out of a hat with no explanation of its physical origin. So don't buy this book if you are trying to UNDERSTAND a reaction or reaction vessel: it won't help. But if you want to know the names and general characteristics of all the different ways people produce chemical substances, this is a useful volume.

Physical and Chemical Engineering Sciences) Advances in Chemical Physics, Volume 15: Stochastic Processes in Chemical Physics (v. 15) Healing Severe Chemical and EMF Sensitivity: Our Breakthrough Cure for Multiple Chemical Sensitivities (MCS) and Electro-hypersensitivity (EHS) Basic Principles and Calculations in Chemical Engineering (8th Edition) (Prentice Hall International Series in the Physical and Chemical Engineering Sciences) Kinetics of Chemical Processes: Butterworth-Heinemann Series in Chemical Engineering Solvent Effects and Chemical Reactivity (Understanding Chemical Reactivity) Contemporary Theory of Chemical Isomerism (Understanding Chemical Reactivity) Chemical Reactions and Chemical Reactors Chemical Oscillations and Instabilities: Non-linear Chemical Kinetics (International Series of Monographs on Chemistry) Elements of Chemical Reaction Engineering (5th Edition) (Prentice Hall International Series in the Physical and Chemical Engineering Sciences)