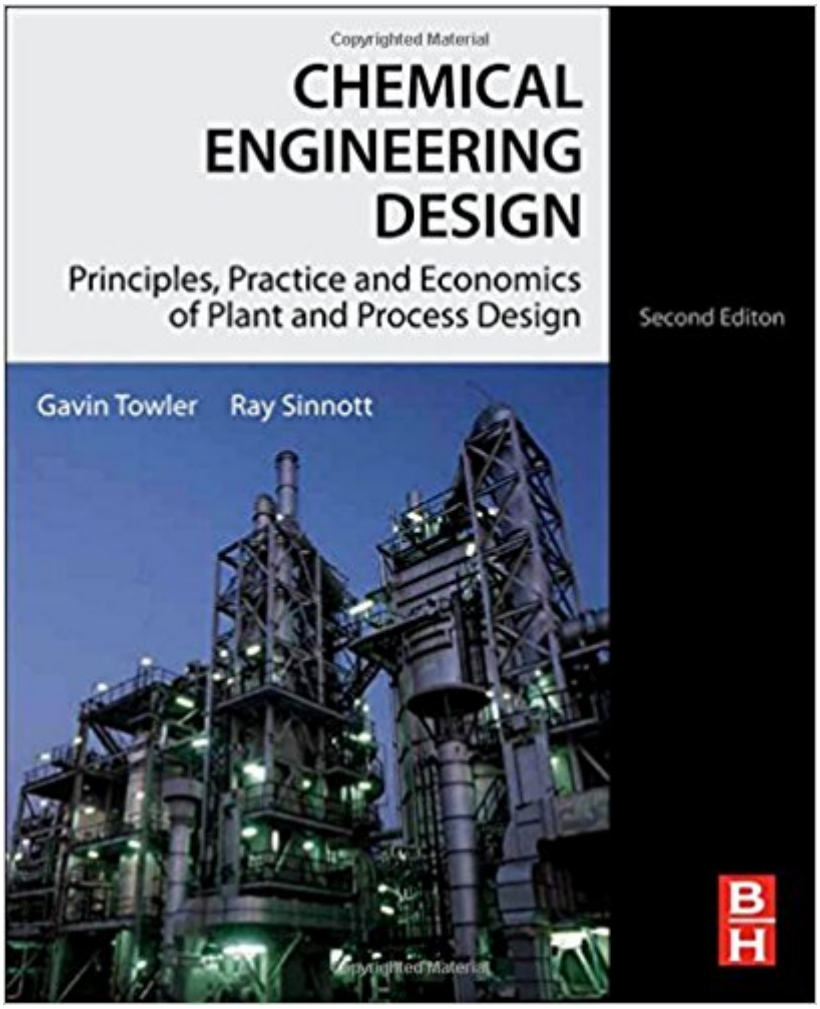
Chemical Engineering Design, Second Edition: Principles, Practice And Economics Of Plant And Process Design



Synopsis

"Bottom line: For a holistic view of chemical engineering design, this book provides as much, if not more, than any other book available on the topic" --Extract from Chemical Engineering Resources review Chemical Engineering Design is a complete course text for students of chemical engineering. Written for the Senior Design Course, and also suitable for introduction to chemical engineering courses, it covers the basics of unit operations and the latest aspects of process design, equipment selection, plant and operating economics, safety and loss prevention. It is a textbook that students will want to keep through their undergraduate education and on into their professional lives. New to this edition: Revised organization into Part I: Process Design, and Part II: Plant Design. The broad themes of Part I are flowsheet development, economic analysis, safety and environmental impact and optimization. Part II contains chapters on equipment design and selection that can be used as supplements to a lecture course or as essential references for students or practicing engineers working on design projects.New discussion of conceptual plant design, flowsheet development and revamp designSignificantly increased coverage of capital cost estimation, process costing and economicsNew chapters on equipment selection, reactor design and solids handling processesNew sections on fermentation, adsorption, membrane separations, ion exchange and chromatographyIncreased coverage of batch processing, food, pharmaceutical and biological processesAll equipment chapters in Part II revised and updated with current informationUpdated throughout for latest US codes and standards, including API, ASME and ISA design codes and ANSI standardsAdditional worked examples and homework problemsÂ The most complete and up to date coverage of equipment selection108 realistic commercial design projects from diverse industriesA rigorous pedagogy assists learning, with detailed worked examples, end of chapter exercises, plus supporting data and Excel spreadsheet calculations plus over 150 Patent References, for downloading from the companion websiteExtensive instructor resources: 1170 lecture slides plus fully worked solutions manual available to adopting instructors

Book Information

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Customer Reviews

"An essential support text for the traditional design product. ...Well written, it is easy to read and is superbly indexed" --Trans IChemE Â "Bottom line: For a holistic view of chemical engineering design, this book provides as much, if not more, than any other book available on the topic. Nearly every subject is accompanied by examples and new technologies are also addressed. In short, a complete, well-written and illustrated resource that is a pleasure to use." --From www.cheresources.com (Chemical Engineering Resources) "Chemical Engineering Design is a complete text for students of chemical engineering. Written for the senior design course, and also suitable for introduction to chemical engineering courses, it covers the basics of unit operations and the latest aspects of process design, equipment selection, plant and operating economics, safety and loss prevention. It includes detailed worked examples, case studies, end-of-chapter exercises, plus supporting data, spreadsheet calculations and equipment specification sheets for downloading." --Chemical Engineering Progress "The book was originally written by British chemical engineer Sinnott as Volume Six of the Chemical Engineering series edited by Coulson and Richardson. It was intended as a stand-alone design textbook for undergraduate design projects that would supplement the other volumes, so it was no long stretch to publish it separately in 2008. Towler (chemical engineering, Northwestern U., Illinois) helped update and revise it, and integrated US laws, codes, and standards into it. This second edition takes account of comments about strengths and weaknesses by students and instructors. It also is rearranged to fit a typical two-course senior design sequence better, focusing first on process design then on plant design." --Reference and Research Book News, Inc.

â ˆBottom line: For a holistic view of chemical engineering design, this book provides as much, if not more, than any other book available on the topic.â ™ Extract from Chemical Engineering Resources review. Chemical Engineering Design is a complete course text for students of chemical engineering. Written for the Senior Design Course, and also suitable for introduction to chemical

engineering courses, it covers the basics of unit operations and the latest aspects of process design, equipment selection, plant and operating economics, safety and loss prevention. It is a textbook that students will want to keep through their undergraduate education and on into their professional lives.

Chemical Engineering Design, Second Edition: Principles, Practice and Economics of Plant and Process Design Chemical Engineering Design: Principles, Practice and Economics of Plant and Process Design Plant Design and Economics for Chemical Engineers Chemical Engineering Design and Analysis: An Introduction (Cambridge Series in Chemical Engineering) The Principles of Chemical Equilibrium: With Applications in Chemistry and Chemical Engineering Analysis, Synthesis and Design of Chemical Processes (4th Edition) (Prentice Hall International Series in the Physical and Chemical Engineering Sciences) 4th (fourth) Edition by Turton, Richard, Bailie, Richard, Whiting, Wallace B., Shaei [2012] Plant Guidelines for Technical Management of Chemical Process Safety Handbook of Chemical Compound Data for Process Safety (Library of Physico-Chemical Property Data) Analysis of Engineering Design Studies for Demilitarization of Assembled Chemical Weapons at Pueblo Chemical Depot (The Compass series) Handbook of Fire and Explosion Protection Engineering Principles, Second Edition: for Oil, Gas, Chemical and Related Facilities FIBER OPTIC NETWORKS outside plant construction & project management techniques: A Guide to Outside Plant Engineering Wetland Economics, 1989-1993: A Selected, Annotated Bibliography (Bibliographies and Indexes in Economics and Economic History) Stochastic Methods in Economics and Finance, Volume 17 (Advanced Textbooks in Economics) Fluid Mechanics for Chemical Engineers (McGraw-Hill Chemical Engineering) Kinetics of Chemical Processes: Butterworth-Heinemann Series in Chemical Engineering Plant and Process Engineering 360 Process Fluid Mechanics, (Prentice-Hall International Series in the Physical and Chemical Engineering Sciences) Separation Process Principles with Applications Using Process Simulators Groups: Process and Practice, 9th Edition (HSE 112 Group Process I) Groups: Process and Practice (HSE 112 Group Process I)