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Nota di contenuto	I Process Design -- 1. Introduction to Design -- 2. Process Flowsheet Development -- 3. Utilities and Energy-Efficient Design -- 4. Process Simulation -- 5. Instrumentation and Process Control -- 6. Materials of Construction -- 7. Capital Cost Estimating -- 8. Estimating Revenues and Production Costs -- 9. Economic Evaluation of Projects -- 10. Safety and Loss Prevention -- 11. General Site Considerations -- 12. Optimization in Design -- Part II: Plant Design -- 13. Equipment Selection, Specification, and Design -- 14. Design of Pressure Vessels -- 15. Design of Reactors and Mixers -- 16. Separation of Fluids -- 17. Separation Columns (Distillation, Absorption, and Extraction) -- 18. Specification and Design of Solids-Handling Equipment -- 19. Heat

Sommario/riassunto

Chemical Engineering Design: Principles, Practice and Economics of Plant and Process Design is one of the best-known and most widely adopted texts available for students of chemical engineering. The text deals with the application of chemical engineering principles to the design of chemical processes and equipment. The third edition retains its hallmark features of scope, clarity and practical emphasis, while providing the latest US codes and standards, including API, ASME and ISA design codes and ANSI standards, as well as coverage of the latest aspects of process design, operations, safety, loss prevention, equipment selection, and more. The text is designed for chemical and biochemical engineering students (senior undergraduate year, plus appropriate for capstone design courses where taken), and professionals in industry (chemical process, biochemical, pharmaceutical, petrochemical sectors).