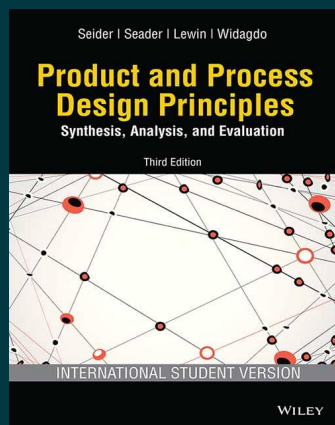




Product and Process Design Principles: Synthesis, Analysis and Evaluation, 3ed, ISV

By Seider, Seader, Lewin, Widagdo

Paperback

9788126557486

₹1,339.00

Pages: 764

Description

Book emphasizes a systematic approach and integrates product design more thoroughly throughout the chapters. New case studies on process design are included to make the concepts more relevant. The social aspects and economics of product design are introduced and the Stage-Gate Product Development Process is explored in parallel tracks for several chemical products. It also provides chemical engineers with numerous examples of the simulator input and output, with frame-by-frame instructions to discuss the nature of the models provided for the processing units.

About the Author

Seider, Seader, Lewin, Widagdo

Wareen D. Seider is Professor of Chemical Engineering at the University of Pennsylvania. Seider has contributed to the fields of process analysis

Table of Contents

1. Introduction to Chemical Product Design
1S Supplement to Chapter
2. Product-Development Process
Part 1 Basic Chemicals Product Design
3. Materials Technology for Basic Chemicals: Molecular-Structure Design
3S Supplement to Chapter
4. Process Creation for Basic Chemicals
5. Simulation to Assist in Process Creation
6. Heuristics for Process Synthesis
7. Reactor Design and Synthesis of Networks Containing Reactors
7S Supplement to Chapter
8. Synthesis of Separation Trains
9. Heat and Power Integration
9S Supplement to Chapter 9 Second Law Analysis
10. Mass Integration
11. Optimal Design and Scheduling of Batch Processes
12. Plant wide Controllability Assessment

12S Supplement to Chapter 12 Flowsheet Controllability Analysis

13. Basic Chemicals

Part 2 Industrial Chemicals Product Design

14. Materials and Process / Manufacturing Technologies for Industrial Chemical Products

15. Industrial Chemicals

Part 3 Configured Consumer Product Design

16. Materials, Process/Manufacturing, and Product Technologies for Configured Consumer Products

16S Supplement to Chapter 16

17. Configured Consumer

Part 4 Detailed Design, Equipment Sizing, Optimization and Product-Quality Analysis

18. Heat Exchanger Design

19. Separation Tower Design

20. Pumps, Compressors and Expanders

21. Polymer Compounding

22. Cost Accounting and Capital Cost Estimation

22S Supplement to Chapter 22

23. Annual Costs, Earnings and Probability Analysis

23S Supplement to Chapter 23

24. Design Optimization

25. Six-Sigma Design Strategies

Part 5 Design Report

26. Written Reports and Oral Presentations

Appendixes

Indices

To purchase this product, please visit:

<https://www.wileyindia.com/product-and-process-design-principles-synthesis-analysis-and-evaluation-3ed-isv.html>



Scan to buy