

### Third Edition of Product and Process Design Principles Recently Published

John Wiley & Sons has recently published the *Third Edition of Product and Process Design Principles* by Warren D. Seider, J. D. Seader, Daniel R. Lewin, and Soemantri Widagdo. The third edition is a major revision of the 2004 Second Edition, and includes a new coauthor, Dr. Soemantri Widagdo of 3M Company.

A principal objective of this updated Third Edition is to describe modern strategies for the design of chemical products and processes, with an emphasis on a systematic approach. This third edition expands upon the strategies for product design, beginning with the need for a project charter, followed by the creation of an innovation map in which potential new technologies are linked to consumer needs. Then, it focuses on the Stage-Gate™ Product-Development Process (SGPDP) for the design of basic, industrial, and configured consumer chemical products. *Eight new case studies have been added to illustrate these product design strategies.*

This text and the Using Process Simulators In Chemical Engineering courseware that accompanies it support a teaching and learning approach that blends modern computational strategies with simple heuristics. The Using Process Simulators courseware uses voice, video, and animation to introduce new users of the steady-state simulators to the specifics of two of the most widely used process simulation programs, ASPEN PLUS and HYSYS (UNISIM). Also, video segments show portions of a petrochemical complex in operation, including distillation towers, heat exchangers, pumps and compressors, and chemical reactors. The courseware includes files that contain the solutions for more than 60 examples using either ASPEN PLUS or HYSYS (UNISIM), as well as problems solved using GAMS (an optimization package) and the MATLAB scripts in Chapter 12.

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New and expanded features in the Third Edition include:

- Six new chapters on product design
- Part One on Basic Chemical Product Design
- Part Two on Industrial Chemicals Product Design.
- Part Three on Configured Consumer Product Design.
- One chapter on Six-Sigma Design Strategies.
- Multi-media Using Process Simulators courseware downloaded from web site.
- Tubular reactor design using computational fluid dynamics.
- New exercises to reinforce concepts and an updated solution manual.
- Power point slides available for instructors to modify and use.

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