



# Basic Principles and Calculations in Chemical Engineering (8th Edition) (Prentice Hall International Series in the Physical and Chemical Engineering Sciences)

By David M. Himmelblau, James B. Riggs

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Engineering Sciences)** By David M. Himmelblau, James B. Riggs

**The Number One Guide to Chemical Engineering Principles, Techniques,  
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***Basic Principles and Calculations in Chemical Engineering, Eighth Edition*** goes far beyond traditional introductory chemical engineering topics, presenting applications that reflect the full scope of contemporary chemical, petroleum, and environmental engineering. Celebrating its fiftieth Anniversary as the field's leading practical introduction, it has been extensively updated and reorganized to cover today's principles and calculations more efficiently, and to present far more coverage of bioengineering, nanoengineering, and green engineering.

Offering a strong foundation of skills and knowledge for successful study and practice, it guides students through formulating and solving material and energy balance problems, as well as describing gases, liquids, and vapors. Throughout, the authors introduce efficient, consistent, student-friendly methods for solving problems, analyzing data, and gaining a conceptual, application-based understanding of modern chemical engineering processes. This edition's improvements include many new problems, examples, and homework assignments.

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## **Editorial Review**

### **About the Author**

**David M. Himmelblau** was (until his death in April) the American Petrofina Foundation Centennial Professor in Chemical Engineering at the University of Texas, Austin. The author of sixteen books, his areas of research included the use of artificial neural networks for fault diagnosis and data rectification. **James B. Riggs** is Professor in the Chemical Engineering Department at Texas Tech University, where he directs the Texas Tech Process Control and Optimization Consortium. His books include *Chemical Process Control, Second Edition* and *An Introduction to Numerical Methods for Chemical Engineers, Second Edition*.

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