Chemistry/Physics

Concise Chemical Thermodynamics

Third Edition

A.P.H. PETERS

The first two editions of ***Concise Chemical Thermodynamics*** proved to be a very popular introduction to a subject many undergraduate students perceive to be difficult due to the underlying mathematics. With its concise explanations and clear examples, the text has for the past 40 years clarified for countless students one of the most complicated branches of science. Following in the tradition of its predecessors, this ***Third Edition*** continues to offer a practical, example-based exploration of a critical topic, maintaining academic rigor but eschewing complicated calculations.

Updated to reflect new concerns in the 21st century, this edition now includes

- An extensive outlook on the world's current energy consumption and the role of renewable energy in the future
- An example of an exothermic reaction through a discussion of the Mond process for extracting and purifying nickel
- The use of Mathcad® to calculate a plot of Gibbs energy for a reaction mixture versus the extent of reaction
- An explanation of the Lambda sensor, which reduces vehicle emissions
- The use of FactSage software to calculate and describe the production of silicon in an arc (oven) furnace

This latest edition reworks problems that have proven to be the most difficult for students and adds several new ones to further amplify complex areas. The book also provides an updated list of suggested readings. Keeping pace with new technology and the shift in emphasis to green chemistry, this volume provides an up-to-date treatment of a foundational topic.

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