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2.5.2 Consecutive First-Order Reactions, A B C · · ·2.5.3 Quasi-Steady Hypothesis; 2.5.4 Autocatalytic Reactions; 2.6 Variable-Volume Batch Reactors; 2.6.1 Systems with Constant Mass; 2.6.2 Fed-Batch Reactors; 2.7 Scaleup of Batch Reactions; 2.8 Stoichiometry and Reaction Coordinates; 2.8.1 Matrix Formulation of Reaction Rates; 2.8.2 Stoichiometry of Single Reactions; 2.8.3 Stoichiometry of Multiple Reactions; Suggested Further Readings; Problems; Appendix 2.1 Numerical Solution of Ordinary Differential Equations; 3 Isothermal Piston Flow Reactors; 3.1 Piston Flow with Constant Mass Flow
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The classic reference, now expanded and updatedChemical Reactor Design, Optimization, and Scaleup is the authoritative sourcebook on chemical reactors. This new Second Edition consolidates the latest information on current optimization and scaleup methodologies, numerical methods, and biochemical and polymer reactions. It provides the comprehensive tools and information to help readers design and specify chemical reactors confidently, with state-of-the-art skills. This authoritative guide: Covers the fundamentals and principles of chemical reactor design, along with adva