



Practical Handbook of Material Flow Analysis

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Language: English

- Serves as the first book on Material Flow Analysis (MFA) methods
- Explains the terms, definitions, and procedures of MFA
- Discusses software compatible with MFA Provides proven, application-oriented MFA case studies
- Demonstrates the interdisciplinary nature of analyzing flows and stocks of complex real world systems
- Presents an outlook toward the potential future developments in the use of MFA
- Offers literature references and sample problems

The concept of a company, city, or region functioning as an anthrosphere, a living organism with metabolic processes, is now widely accepted among professionals within scientific, engineering, and materials management fields. While the traits of an anthrosphere are described throughout academia, until now there was no widely accepted methodology for applying these concepts.

Practical Handbook of Material Flow Analysis establishes a rigid, transparent and useful methodology for investigating the material metabolism of anthropogenic systems. Using Material Flow Analysis (MFA), engineers and planners can determine the main sources, flows, stocks, and emissions of man-made and natural materials. By demonstrating the application of MFA, this book reveals how resources can be conserved and the environment protected within complex systems. The fourteen case studies presented exemplify the potential for MFA to contribute to sustainable materials management. Exercises throughout the book deepen comprehension and expertise.

The authors have had success in applying MFA to various fields, and now promote the use of MFA in a uniform way so that future environmental engineers, resource managers, and urban planners have a common method in their toolboxes for solving resource-oriented problems.