

Table of Contents

- Introduction: "Food is Life"
- 1 Physical Properties of Food Materials
- 2 Fluid Flow
- 3 Heat and Mass Transfer, Basic Principles
- 4 Reaction Kinetics
- 5 Elements of Process Control
- 6 Size Reduction
- 7 Mixing
- 8 Filtration
- 9 Centrifugation
- 10 Membrane Processes
- 11 Extraction
- 12 Adsorption and Ion Exchange
- 13 Distillation
- 14 Crystallization and Dissolution
- 15 Extrusion
- 16 Spoilage and Preservation of Foods
- 17 Thermal Processing
- 18 Thermal Processes, Methods and Equipment
- 19 Refrigeration-Chilling and Freezing
- 20 Refrigeration-Equipment and Methods
- 21 Evaporation
- 22 Dehydration
- 23 Freeze-Drying (lyophilization) and Freeze Concentration
- 24 Frying, Baking, Roasting
- 25 Chemical Preservation
- 26 Ionizing Irradiation and other Non-Thermal Preservation
- 27 Food Packaging
- 28 Cleaning, Disinfection, Sanitation
- Appendices: Tables and Figures