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Ready for the World, Part 2; 1.5.9 In Summary - Toward the End; References; Further Reading for Section 1.3; Further Reading for Section 1.5; 2 Fibrous Materials for Paper and Board Manufacture; 2.1 Overview; 2.2 Chemical Pulp; 2.2.1 Introduction; 2.2.2 Wood Preparation for Pulping Processes; 2.2.3 Sulfate Process; 2.2.3.1 Cooking; 2.2.3.2 Regeneration of Spent Cooking Liquor; 2.2.4 Sulfite Pulp; 2.2.5 Bleaching of Chemical Pulp; 2.2.6 Semimechanical Pulp; 2.2.7 Properties of Chemical Pulps 2.2.8 Properties of SemiMechanical Pulps 2.3 Mechanical Pulp; 2.3.1 Introduction; 2.3.2 The Grinding Process; 2.3.3 The Refiner Process; 2.3.3.1 Refining Principles; 2.3.3.2 Mechanical, Thermal, and Chemical Impacts in the Refiner Process; 2.3.3.3 Machines and Aggregates for the Refiner Process; 2.3.4 Mechanical Pulp Processing; 2.3.5 Mechanical Pulp Bleaching; 2.3.6 Properties of Mechanical Pulp; 2.4 Recovered Paper, Recycled Fibers; 2.4.1 Role of Recovered Paper in the Paper and Board Industry; 2.4.2 Main Definitions for Statistics; 2.4.3 Utilization Rates for Different Paper Grades 2.4.4 Resources of Recovered Paper 2.4.5 Lists for Recovered Paper Grades; 2.4.6 Use of Recovered Paper Grades; 2.4.7 Requirements of Paper Products with Respect to Recyclability; 2.4.7.1 Deinkability; 2.4.7.2 Removability of Adhesives Applications from Graphic Paper Products; 2.4.7.3 Removability of Adhesives Applications from Packaging Products; 2.4.8 Multiple Paper Recycling; 2.5 Wood Pulp Fiber Suspensions; 2.5.1 Introduction; 2.5.2 Flocculation; 2.5.3 The Flow of Wood Pulp Fiber Suspensions; 2.5.4 The Mechanisms of Flow; 2.5.4.1 Sub-Regime Zero-A; 2.5.4.2 Sub-Regime A-B 2.5.4.3 Sub-Regime B-C

Sommario/riassunto

Papermaking is a fascinating art and technology. The second edition of this successful handbook provides a comprehensive view on the technical, economic, ecologic and social background of paper and board. It has been updated, revised and largely extended in depth and width including the further use of paper and board in converting and printing. A wide knowledge basis is a prerequisite in evaluating and optimizing the whole process chain to ensure efficient paper and board production. The same is true in their application and end use. The 2 Volume Set covers a wide range of topics:
