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Mathematical Modelling and Analysis of Converting and Enduse -- Backmatter

Sommario/riassunto

This four volume set covers the entire spectrum of pulp and paper chemistry and technology from starting material to processes and products including market demands. This work is essential for all students of wood science and a useful reference for those working in the pulp and paper industry or on the chemistry of renewable resources. This volume examines the physical properties of paper and modern demands on this versatile material. The book presents fundamental definitions of fibre networks and their structure, physical properties of the paper and their development during pressing and drying, interactions with moisture and its affect on mechanical properties, interactions between light and fibrous materials and the determination of optical properties of the paper, physical action of dry-strength and wet-strength chemicals, physical properties of the paper surface with special emphasis on printing and print quality, overview of packaging materials and the demands on paper from a packaging materials perspective, laminate theories for papermakers and theoretical models of paper for converting and end-uses.