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Nota di contenuto	Frontmatter -- Preface -- Contents -- 1. The chemical industry -- 2. The structure of chemical and biochemical process systems -- 3. Principles of chemical reaction engineering -- 4. Chemical reactors and their industrial applications -- 5. Biochemical reaction technology -- 6. Evaporative separations -- 7. Extraction and leaching -- 8. Absorption and stripping -- 9. Adsorption and ion exchange -- 10. Solid-liquid separation -- 11. Particle removal from gases -- 12. Membrane separations -- 13. Crystallization and precipitation -- 14. Solids finishing technologies -- 15. Product technology -- 16. Development and engineering -- 17. Hydrodynamic aspects of scale-up -- 18. Process safety -- A. Base chemicals -- B. Polymer Manufacturing -- C. Life science products -- References and further reading -- Index
Sommario/riassunto	Process Technology provides a general overview about chemical and biochemical process technology. It focuses on the structure and

development of production processes, main technological operations and the important aspects of process economics. The theoretical foundations in each chapter are supplemented by case studies and examples in a clear and instructive manner to illustrate the practical aspects.The author highlights operating principles, reasons for application and available industrial equipment of technological operations. Aim is to facilitate those without a process technology background in multi-disciplinary cooperation with (bio-) chemical engineers by providing an overview of this exciting field.The textbook is organized into seven distinct parts:Structure of the chemical industry and (bio-) chemical processes(Bio-) Chemical reaction engineeringMolecular separations (distillation, extraction, absorption, adsorption)Mechanical separations (filtration, sedimentation, membranes)Particle and final product manufacturingDevelopment, scale-up, design and safety of processesMajor industrial process descriptions