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Recommended Resources for the ReaderQuestions for Thinking and Discussing; Chapter 5. What Pressure and Cake Filtration Are All About; Introduction; Constant Pressure Differential Filtration; Constant-Rate Filtration; Variable-Rate and -Pressure Filtration; Constant-Pressure and -Rate Filtration; Filter-Medium Filtration Formulas; Cake Filtration Equipment,; Nomenclature,; Recommended Resources for the Reader,; Questions for Thinking and Discussing; Chapter 6. Cartridge and Other Filters Worth Mentioning; Introduction; Cartridge Filters; The Tilting Pan Filter; The Table Filter
Questions for Thinking and DiscussingChapter 7. What Sand Filtration is All About; Introduction; Water Treatment Plant Operations; Granular Media Filtration; Let's Take a Closer Look at Sand Filters; Slow Sand Filtration; Rapid Sand Filtration; Chemical Mixing and Solids Contact Processes; Recommended Resources for the Reader; Questions for Thinking and Discussing; Chapter 8. Sedimentation, Clarification, Flotation, and Coalescence; Introduction; Let's Look at How a Single Particle Behaves in a Suspension; Gravity Sedimentation; The Sedimentation Process in Greater Detail
A Closer Look at Mechanical Clarification Process and the Chemistry of ClarificationRectangular Sedimentation Tanks; Air Flotation Systems; Separation Using Coalescers; Nomenclature; Recommended Resources for the Reader; Questions for Thinking and Discussing; Chapter 9. Membrane Separation Technologies; Introduction; An Overview of Membrane Processes; What Electrodialysis Is; What Ultrafiltration Is; What Microfiltration and Nanofiltration Are; What Reverse Osmosis Is; Recommended Resources for the Reader; Questions for Thinking and Discussing; Chapter 10. Ion Exchange and Carbon Adsorption Introduction

Sommario/riassunto

This Handbook is an authoritative reference for process and plant engineers, water treatment plant operators and environmental consultants. Practical information is provided for application to the treatment of drinking water and to industrial and municipal wastewater. The author presents material for those concerned with meeting government regulations, reducing or avoiding fines for violations, and making cost-effective decisions while producing a high quality of water via physical, chemical, and thermal techniques.Included in the texts are sidebar discussions, questions for thinking