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4.7 Membranes for FO4.8 Desalination by FO; 4.9 Conclusion; List of symbols; Abbreviations; References; 5 - Membrane bioreactors for water treatment; 5.1 Introduction; 5.2 Fundamentals; 5.3 Aerobic MBR; 5.4 Anaerobic MBRs; 5.5 Forward osmosis MBRs; 5.6 Conclusion and perspectives; List of abbreviations; References; 6 - Advances in electrodialysis for water treatment; 6.1 Introduction; 6.2 Fundamentals of electrodialysis for water treatment; 6.3 Advances in membrane materials for electrodialysis for water treatment
6.4 Advances in membrane modules and system configurations for electrodialysis for water treatment6.5 Applications of electrodialysis for water treatment; 6.6 Future trends; Sources of further information and advice; References; 7 - Photocatalytic membrane reactors for water treatment; 7.1 Introduction; 7.2 Fundamentals of PMRs for water treatment; 7.3 Advances in membrane modules and system configurations for PMRs for water treatment; 7.4 Applications of PMRs for water treatment; 7.5 Advantages and limitations of PMRs in water treatment; 7.6 Conclusion; 7.7 Future trends
7.8 Sources of further information

Sommario/riassunto

Advances in Membrane Technologies for Water Treatment: Materials, Processes and Applications provides a detailed overview of advanced water treatment methods involving membranes, which are increasingly seen as effective replacements for a range of conventional water treatment methods. The text begins with reviews of novel membrane materials and advances in membrane operations, then examines the processes involved with improving membrane performance. Final chapters cover the application of membrane technologies for use in water treatment, with detailed discussions on municipal wastewater