1. Record Nr. UNINA9910831049303321

Autore	Kucera Jane
Titolo	Reverse osmosis : industrial processes and applications / / Jane Kucera
Pubbl/distr/stampa	Hoboken, New Jersey ; ; Salem, Massachusetts : , : Scrivener Publishing : , : Wiley, , 2015 ©2015
ISBN	1-5231-1050-3 1-119-14578-3 1-119-14577-5
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (475 p.)
Disciplina	628.1/6744
Soggetti	Water - Purification - Reverse osmosis process Industrial water supply
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Cover; Title Page; Copyright Page; Contents; Preface; Acknowledgements for the First Edition; Acknowledgements for the Second Edition; Part 1: Fundamentals; 1 Introduction and History of Development; 1.1 Introduction; 1.1.1 Uses of Reverse Osmosis; 1.1.2 History of Reverse Osmosis Development; 1.1.3 Recent Advances in RO Membrane Technology; 1.1.4 Future Advancements; 1.1.5 Advances Since First Edition of this Book; References; 2 Reverse Osmosis Principles; 2.1 Osmosis; 2.2 Reverse Osmosis; 2.3 Dead-End Filtration; 2.4 Cross-Flow Filtration; 3 Basic Terms and Definitions 3.1 Reverse Osmosis System Flow Rating3.2 Recovery; 3.3 Rejection; 3.4 Flux; 3.5 Concentration Polarization; 3.6 Beta; 3.7 Fouling; 3.8 Scaling; 3.9 Silt Density Index; 3.10 Modified Fouling Index; 3.11 Langelier Saturation Index; References; 4 Membranes; 4.1 Transport Models; 4.1.1 Solution-Diffusion Model (non-porous model); 4.1.2 Solution-Diffusion Imperfection Model (porous model); 4.1.3 Finely-Porous Model (porous model); 4.1.4 Preferential Sorption - Capillary Flow Model (porous model); 4.1.5 Phenomenological Transport Relationship (Irreversible thermodynamics); 4.2 Membrane Materials