1. Record Nr. UNINA9910814120603321 Autore Burn Stewart Titolo Efficient desalination by reverse osmosis: a guide to RO practice // Stewart Burn and Stephen Gray London, England: ,: IWA Publishing, , 2016 Pubbl/distr/stampa ©2016 **ISBN** 1-78040-504-9 Descrizione fisica 1 online resource (267 p.) Disciplina 628,167 Soggetti Saline water conversion Water - Purification - Reverse osmosis process 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. Nota di contenuto Cover; Copyright; Contents; Acknowledgements; Chapter 1: Introduction: Desalination by reverse osmosis; Chapter 2: The process of reverse osmosis; 2.1 Introduction; 2.2 Osmotic Pressure; 2.2.1 Calculation of osmotic pressure; 2.3 Water Flow; 2.3.1 Salt rejection; 2.3.2 Salt passage; 2.4 Salt Flow; 2.5 Recovery; 2.6 Concentration Polarization; 2.6.1 Control of concentration polarization; 2.6.2 Effects of concentration polarization; 2.6.3 Concentration polarization factor; 2.7 Mass Transfer Coefficient; 2.8 Water Temperature; 2.9 Summary; 2.10 References Chapter 3: Filtration technologies for pretreatment of seawater desalination based on reverse osmosis3.1 Introduction; 3.2 Granular Media Filtration; 3.2.1 Background; 3.2.2 Coagulation; 3.2.3 Coagulant type; 3.2.4 Filtration rates; 3.2.5 Media; 3.2.6 Backwash; 3.3 Membrane Filtration; 3.3.1 Background; 3.3.2 Coagulation; 3.3.3 Flux and recovery; 3.3.4 Membranes; 3.3.5 Cleaning; 3.4 Selection of Seawater Filtration Pretreatment; 3.4.1 Water quality; 3.4.2 Cost; 3.5 Summary and Conclusion; 3.6 References; Chapter 4: Reverse osmosis process' design and applications; 4.1 Overview 4.1.1 Single and multiple pass RO systems4.2 NF System Configurations: 4.3 BWRO System Configurations: 4.4 Seawater System

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