1. Record Nr. UNINA9910624378703321

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Titolo	Reverse Osmosis Seawater Desalination Volume 1 : Planning, Process Design and Engineering – A Manual for Study and Practice / / by Heinz Ludwig
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	9783030819316 3030819310
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (749 pages)
Disciplina	628.167 628.16744
Soggetti	Environmental engineering Civil engineering Production engineering Marine engineering Environmental Civil Engineering Process Engineering Marine Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Earth's Fresh Water Ressources, their Management and Role of Seawater Desalination -- Seawter - Composition and Properties -- Seawater Reverse Osmosis Plant - General Systems Configuration -- The Reverse Osmosis Membrane System. .
Sommario/riassunto	Seawater reverse osmosis (SWRO) is the dominant desalination process worldwide for obtaining fresh water from the sea. The subject matter and scope of this book is the conceptual and advanced planning, design and engineering of plants of this desalination process together with the associated facilities for seawater pretreatment, post-treatment of the product water, wastewater treatment, seawater extraction and plant discharge. Volume 1 of the book comprises Strategic considerations regarding the role of seawater desalination in an integrated water management consisting of natural water resources,

water recycling and desalination Composition of seawater in different marine regions as well as its physical and physicochemical properties and their dependence on salinity and temperature Description of the methodology used in the overall planning, design and implementation of an SWRO project, as well as in the associated site selection and the development of an ecological concept for the plant Explanation of the design basics and their application in the dimensioning of the RO units of an SWRO and its energy recovery processes The book is intended to be used by technicians, engineers, economists and ecologists in the planning, design and operation of SWRO plants, as an educational and training tool, as well as an aid in environmental licensing of membrane desalination plants, and by interested laypersons for information about this process. Heinz Ludwig gained his professional expertise during more than five decades of business in the fields of seawater desalination technologies, environmental protection and treatment of process water, drinking water and waste water. In seawater desalination he was involved in a multitude of worldwide projects of brackish water and seawater desalination with thermal processes and membrane technologies.