



# Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research)

*Enrico Drioli*

Download now

Read Online →

[Click here](#) if your download doesn't start automatically

# Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research)

*Enrico Drioli*

**Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research)** Enrico Drioli

Reverse Osmosis is the dominant technology in water desalination. However, some critical issues remain open: improvement of water quality, enhancement of the recovery factor, reduction of the unit water cost, minimizing the brine disposal impact. This book aims to solve these problems with an innovative approach based on the integration of different membrane operations in pre-treatment and post-treatment stages.

Membrane-Based Desalination: An Integrated Approach (acronym MEDINA) has been a three years project funded by the European Commission within the 6th Framework Program. The project team has developed a work programme aiming to improve the current design and operation practices of membrane systems used for water desalination, trying to solve or, at least, to decrease the critical issues of sea and brackish water desalination systems. In the book, the main results achieved in the nine Work Packages constituting the project will be described, and dismissed by the leaders of the various WPs. The following areas are explored in the book: \* the development of advanced analytical methods for feed water characterization, appropriate fouling indicators and prediction tools, procedures and protocols at full-scale desalination facilities; \* the identification of optimal seawater pre-treatment strategies by designing advanced hybrid membrane processes (submerged hollow fibre filtration/reaction, adsorption/ion exchange/ozonation) and comparison with conventional methods; \* the optimisation of RO membrane module configuration, cleaning strategies, reduction of scaling potential by NF; \* the development of strategies aiming to approach the concept of Zero Liquid Discharge (increasing the water recovery factor up to 95% by using Membrane Distillation - MD; bringing concentrates to solids by Membrane Crystallization or Wind Intensified Enhanced Evaporation) and to reduce the brine disposal environmental impact and cost; \* increase the sustainability of desalination process by reducing energy consumption (evaluation of MD, demonstration of a new energy recovery device for SWRO installations) and use of renewable energy (wind and solar).

 [Download Membrane Based Desalination: An Integrated Approach \(Me ...pdf](#)

 [Read Online Membrane Based Desalination: An Integrated Approach \( ...pdf](#)

**Download and Read Free Online Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) Enrico Drioli**

---

## **Download and Read Free Online Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) Enrico Drioli**

---

### **From reader reviews:**

#### **James Williamson:**

With other case, little people like to read book Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research). You can choose the best book if you love reading a book. Provided that we know about how is important the book Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research). You can add knowledge and of course you can around the world by a book. Absolutely right, simply because from book you can realize everything! From your country until foreign or abroad you will end up known. About simple point until wonderful thing you could know that. In this era, you can open a book or even searching by internet product. It is called e-book. You can utilize it when you feel uninterested to go to the library. Let's examine.

#### **Ruth Davis:**

This Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) book is not really ordinary book, you have after that it the world is in your hands. The benefit you have by reading this book is usually information inside this e-book incredible fresh, you will get info which is getting deeper you read a lot of information you will get. This Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) without we know teach the one who studying it become critical in thinking and analyzing. Don't be worry Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) can bring if you are and not make your tote space or bookshelves' turn out to be full because you can have it within your lovely laptop even cell phone. This Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) having fine arrangement in word along with layout, so you will not really feel uninterested in reading.

#### **Gregory Goolsby:**

This book untitled Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) to be one of several books this best seller in this year, honestly, that is because when you read this publication you can get a lot of benefit in it. You will easily to buy this specific book in the book shop or you can order it through online. The publisher on this book sells the e-book too. It makes you quicker to read this book, as you can read this book in your Smartphone. So there is no reason to you to past this book from your list.

#### **Carl Guerra:**

The book untitled Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) contain a lot of information on it. The writer explains the girl idea with easy method. The language is very clear to see all the people, so do certainly not worry, you can easy to read it. The book was published by famous author. The author brings you in the new age of literary works. It is easy to read this book because you can read more your smart phone, or product, so you can read the book in anywhere and

anytime. If you want to buy the e-book, you can open their official web-site and order it. Have a nice go through.

**Download and Read Online Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) Enrico Drioli #L52ENZ07GKQ**

## **Read Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) by Enrico Drioli for online ebook**

Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) by Enrico Drioli Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) by Enrico Drioli books to read online.

### **Online Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) by Enrico Drioli ebook PDF download**

**Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) by Enrico Drioli Doc**

**Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) by Enrico Drioli Mobipocket**

**Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) by Enrico Drioli EPub**

**Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) by Enrico Drioli Ebook online**

**Membrane Based Desalination: An Integrated Approach (Medina) (European Water Research) by Enrico Drioli Ebook PDF**