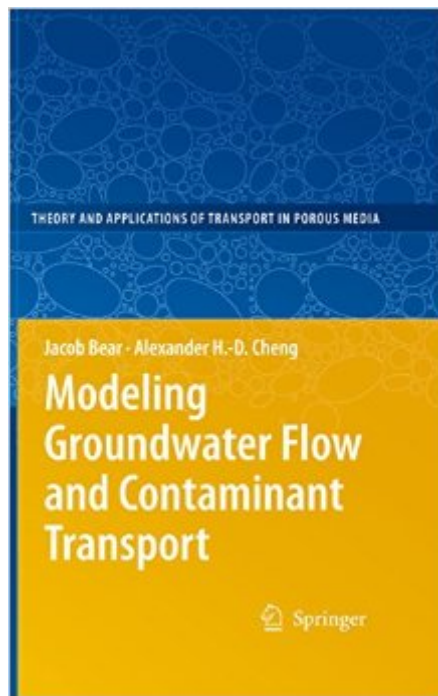


The book was found

Modeling Groundwater Flow And Contaminant Transport (Theory And Applications Of Transport In Porous Media)



Synopsis

In many parts of the world, groundwater resources are under increasing threat from growing demands, wasteful use, and contamination. To face the challenge, good planning and management practices are needed. A key to the management of groundwater is the ability to model the movement of fluids and contaminants in the subsurface. The purpose of this book is to construct conceptual and mathematical models that can provide the information required for making decisions associated with the management of groundwater resources, and the remediation of contaminated aquifers. The basic approach of this book is to accurately describe the underlying physics of groundwater flow and solute transport in heterogeneous porous media, starting at the microscopic level, and to rigorously derive their mathematical representation at the macroscopic levels. The well-posed, macroscopic mathematical models are formulated for saturated, single phase flow, as well as for unsaturated and multiphase flow, and for the transport of single and multiple chemical species. Numerical models are presented and computer codes are reviewed, as tools for solving the models. The problem of seawater intrusion into coastal aquifers is examined and modeled. The issues of uncertainty in model input data and output are addressed. The book concludes with a chapter on the management of groundwater resources. Although one of the main objectives of this book is to construct mathematical models, the amount of mathematics required is kept minimal.

Book Information

File Size: 26244 KB

Print Length: 834 pages

Publisher: Springer; 2010 edition (January 18, 2010)

Publication Date: January 18, 2010

Sold by: Digital Services LLC

Language: English

ASIN: B00DWKP6D6

Text-to-Speech: Not enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Not Enabled

Best Sellers Rank: #1,416,681 Paid in Kindle Store (See Top 100 Paid in Kindle Store) #66

in Kindle Store > Kindle eBooks > Engineering & Transportation > Engineering > Civil >

Environmental > Hydrology #159 inÂ Books > Engineering & Transportation > Engineering > Civil & Environmental > Environmental > Groundwater & Flood Control #500 inÂ Kindle Store > Kindle eBooks > Nonfiction > Science > Earth Sciences > Geology

Customer Reviews

The book is one of the best in the subject, Jacob Bear uses a beautiful mathematical language, and it is self-contained. I bought this book from Peru and it arrived in just 10 days. Thanks.

I like it

[Download to continue reading...](#)

Modeling Groundwater Flow and Contaminant Transport (Theory and Applications of Transport in Porous Media) Fluid Flow in the Subsurface: History, Generalization and Applications of Physical Laws (Theory and Applications of Transport in Porous Media) Applied Groundwater Modeling, Second Edition: Simulation of Flow and Advective Transport Mechanics of Groundwater in Porous Media Introduction to the Numerical Modeling of Groundwater and Geothermal Systems: Fundamentals of Mass, Energy and Solute Transport in Poroelastic Rocks (Multiphysics Modeling) Geochemical Modeling of Groundwater, Vadose and Geothermal Systems (Multiphysics Modeling) Dynamics of Fluids in Porous Media (Dover Civil and Mechanical Engineering) Light Scattering, Size Exclusion Chromatography and Asymmetric Flow Field Flow Fractionation: Powerful Tools for the Characterization of Polymers, Proteins and Nanoparticles Teach'n Beginning Offensive Basketball Drills, Plays, and Games Free Flow Handbook (Series 4 Free Flow books 25) Wiley's Remediation Technologies Handbook: Major Contaminant Chemicals and Chemical Groups ISO 8573-7:2003, Compressed air - Part 7: Test method for viable microbiological contaminant content Characterization of Porous Solids and Powders: Surface Area, Pore Size and Density (Particle Technology Series) Daring Adventures in Paint: Find Your Flow, Trust Your Path, and Discover Your Authentic Voice-Techniques for Painting, Sketching, and Mixed Media Freight Forwarding and Multi Modal Transport Contracts (Maritime and Transport Law Library) ASTNA Patient Transport: Principles and Practice (Air & Surface Patient Transport: Principles and Practice) Transport Nursing (CTRN) Review (Certification in Transport Nursing Book 1) Graph Theory: Modeling, Applications, and Algorithms Student Solutions Manual for Differential Equations: Computing and Modeling and Differential Equations and Boundary Value Problems: Computing and Modeling Mathematical Modeling of Collective Behavior in Socio-Economic and Life Sciences (Modeling and Simulation in Science, Engineering and Technology) Microsoft Excel 2013 Data Analysis and Business Modeling:

Data Analysis and Business Modeling (Introducing)

[Dmca](#)