Record Nr. UNINA9910823465503321 Autore Little Keith W Titolo Environmental fate and transport analysis with compartment modeling // Keith W. Little Boca Raton, FL,: CRC Press/Taylor & Francis Group, 2012 Pubbl/distr/stampa **ISBN** 0-429-11201-7 1-138-07413-6 1-4398-8797-7 Edizione [1st ed.] Descrizione fisica 1 online resource (239 p.) SCI013000SCI026000TEC010000 Classificazione 363.7301/51 Disciplina Soggetti Pollution - Mathematical models Transport theory - Mathematical models Diffusion - Mathematical models Cross-media pollution Compartmental analysis (Biology) **Pollutants** Differential equations Inglese Lingua di pubblicazione **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Front Cover; Contents; Preface; Acknowledgments; Author; Chapter 1 -Nota di contenuto Introduction: Chapter 3 - Compartment Approach, Transport Mechanisms, and Boundary Conditions; Chapter 4 - Source and Sink Terms; Chapter 5 - Solution Techniques for Steady-State Problems; Chapter 6 - Solution Techniques for Dynamic Problems; Appendix: Introduction to Matrices and Matrix Operations; Back Cover Sommario/riassunto This book examines mathematical modeling and computer simulations that estimate the distribution of chemical contaminants in environmental media in time and space. Discussing various modeling issues in a single volume, this text provides an introduction to a specific numerical modeling technique called the compartment approach and offers a practical user's guide to the GEM. It includes the Generic Environmental Model (GEM) software package, which

implements the techniques described. The author presents algorithms

for solving linear and nonlinear systems of algebraic equations as well as systems of linear and nonlinear partial differential equations--