Record Nr. UNINA9910462427903321 Autore Little Keith W. Titolo Environmental fate and transport analysis with compartment modeling // Keith W. Little Boca Raton, Fla.:,: CRC Press,, 2012 Pubbl/distr/stampa **ISBN** 0-429-11201-7 1-138-07413-6 1-4398-8797-7 Descrizione fisica 1 online resource (239 p.) Disciplina 363.7301/51 Soggetti Pollution - Mathematical models Transport theory - Mathematical models Diffusion - Mathematical models Cross-media pollution Compartmental analysis (Biology) **Pollutants** Differential equations Electronic books. 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 and index. Nota di contenuto Front Cover; Contents; Preface; Acknowledgments; Author; Chapter 1 -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--