1. Record Nr. UNINA990000277110403321

Autore	Rajhans, Gyan S.
Titolo	Practical guide to respirator usage in industry / By Gyan Rajhans, David S.L. Blackwell
Pubbl/distr/stampa	Boston : Butterworths, copyr. 1985
Descrizione fisica	XIII,161 p., ill., 25 cm
Disciplina	602
Locazione	DINCH
Collocazione	04 004-180
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9910831064303321

Titolo	Guidelines for use of vapor cloud dispersion models [[electronic resource]]
Pubbl/distr/stampa	New York, : Center for Chemical Process Safety of the American Institute of Chemical Engineers, c1996
ISBN	1-282-78321-1 9786612783210 0-470-93507-3 1-59124-582-6 0-470-93506-5
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (293 p.)
Disciplina	533.63 533/.63 628.5/3/0113 628.53011 628.530113
Soggetti	Atmospheric diffusion - Mathematical models Hazardous substances - Environmental aspects - Mathematical models Vapors - Mathematical models

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	Guidelines for Use of Vapor Cloud Dispersion Models; Contents; PREFACE; ACKNOWLEDGMENTS; NOMENCLATURE; 1. Background and Objectives; 2. Overview of Modeling Procedures, Including Rationale for Selecting Scenarios for Worked Examples; 2.1. Types of Scenarios and Models; 2.2. Gross Screening Analysis; 2.3. Scenarios Selected for Worked Examples; 3. Input Data Required; 3.1. Source Data; 3.2. Site Characteristics; 3.3. Meteorological Data and Formulas for Calculating Input Parameters; 3.4. Receptor-Related Data; 4. Source Emission Models; 4.1. Conceptual Process for Source Term Determination 4.2. Calculation of Source Terms4.2.1. Gas Jet Releases; 4.2.2. Liquid Jet Releases; 4.2.3. Two-Phase Jet Releases; 4.2.4. Liquid Pool Spreading; 4.2.5. Liquid Pool Evaporation; 4.2.6. Multicomponent Evaporation; 4.3. Uncertainties in Source Term Estimation; 5. Dispersion Models; 5.1. Critical Richardson Number Criterion; 5.2. Jet Trajectory and Entrainment; 5.2.1. Momentum-Dominated Jets; 5.2.2. Elevated Dense Gas Jets; 5.2.3. Positively Buoyant Plumes; 5.3. Dense Gas Release at Grade; 5.3.1. Background and Overview; 5.3.2. Dense Gas Clouds in the Absence of Heat Exchange 5.3.3. Dense Gas Clouds in the Presence of Heat Exchanges5.4. Transport and Dispersion of Neutrally Buoyant or Passive Gas Clouds; 5.5. Simple Nomograms for Calculating the Dilution of Dense Gas Release; 5.6. Three-Dimensional Numerical Models of Dense Gas Dispersion; 5.7. Transport and Dispersion Near Buildings; 5.7.1. Plume Confinement by Canyons; 5.7.2. Concentrations on Building Faces Due to Releases from Vents; 5.7.3. Concentrations on the Building Downwind Face (the Near-Wake) Due to Releases from Sources on the Building; 5.7.4. Other Effects of Buildings 5.8. Worst Case Meteorological Conditions5.9. Removal by Dry and Wet Deposition; 5.9.1. Gravitational Settling of Lorge Particles or Aerosols; 5.9.2. Dry Deposition of Small Particles and Gases; 5.9.3. Removal of Particles and Gases by Precipitation and Clouds (Wet Deposition); 6. Averaging Times, Concentration Fluctuations, and Modeling Uncertainties; 6.1. Overview of Physical Considerations Related to Averaging Time; 6.2. Overview of Characteristics of Concentration Fluctuations in Plumes 6.3. Predictions of Concentrations on the Plume Centerline at a Given Downwind Distance as a Function of Averaging Time, Ta6.4. Predictions of Concentrations at a Given Receptor Position as a Function of Averaging Time, Ta; 6.5. Threshold Crossing Probability; 6.6. A General Structure for the Analysis of Model Uncertainties; 7. Overview of Operational Vapor Cloud Models in Common Use; 7.1. Summary of Commonly Used Models; 7.2. Characteristics of Commonly Used Vapor Cloud Dispersion Models; 8. Evaluation of Models with Field Data; 8.1. Description of Field Data Sets 8.2. Model Evaluation Procedures
Sommario/riassunto	The second edition of this essential reference updates and combines two earlier titles to capture the many technological advances for predicting the ""footprint"" of a vapor cloud release. Cited by EPA in its 1996 document, ""Off-Site Consequence Analysis Guidance,"" the aim of the book is to encourage and facilitate the development and use of dispersion modeling as an everyday tool, providing practical

		understanding of basic physical and chemical principles, guidance in selecting release scenarios and the best available models, and information and examples on how to run some models and interp

3.	Record Nr.	UNINA9910812555803321
	Autore	Janssen Jacques
	Titolo	Applied diffusion processes from engineering to finance / / Jacques Janssen, Oronzio Manca, Raimando Manca
	Pubbl/distr/stampa	London, : Wiley, 2013
	ISBN	9781118578339 1118578333 9781118578346 1118578341 9781299475588 1299475582 9781118576687 1118576683
	Edizione	[1st ed.]
	Descrizione fisica	1 online resource (411 p.)
	Collana	ISTE
	Altri autori (Persone)	MancaOronzio MancaRaimondo
	Disciplina	519.233
	Soggetti	Business mathematics Differential equations, Partial Diffusion processes Engineering mathematics
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di contenuto	Title Page; Contents; Introduction; Chapter 1. Diffusion Phenomena and Models; 1.1. General presentation of diffusion process; 1.2. General balance equations; 1.3. Heat conduction equation; 1.4. Initial and boundary conditions; Chapter 2. Probabilistic Models of Diffusion Processes; 2.1. Stochastic differentiation; 2.1.1. Definition; 2.1.2. Examples; 2.2. Ito's formula; 2.2.1. Stochastic differential of a product;

2.2.2. Ito's formula with time dependence; 2.2.3. Interpretation of Ito's formula; 2.2.4. Other extensions of Ito's formula; 2.3. Stochastic differential equations (SDE)
2.3.1. Existence and unicity general theorem (Gikhman and Skorokhod [GIK 68])2.3.2. Solution of SDE under the canonical form; 2.4. Ito and diffusion processes; 2.4.1. Ito processes; 2.4.2. Diffusion processes; 2.4.3. Kolmogorov equations; 2.5. Some particular cases of diffusion processes; 2.5.1. Reduced form; 2.5.2. The OUV (Ornstein-Uhlenbeck-Vasicek) SDE; 2.5.3. Solution of the SDE of Black-Scholes-Samuelson; 2.6. Multidimensional diffusion processes; 2.6.1. Multidimensional SDE; 2.6.2. Multidimensional Ito and diffusion processes; 2.6.3. Properties of multidimensional diffusion processes
2.6.4. Kolmogorov equations2.7. The Stroock-Varadhan martingale characterization of diffusions (Karlin and Taylor [KAR 81]); 2.8. The Feynman-Kac formula (Platen and Heath); 2.8.1. Terminal condition; 2.8.2. Discounted payoff function; 2.8.3. Discounted payoff function and payoff rate; Chapter 3. Solving Partial Differential Equations of Second Order; 3.1. Basic definitions on PDE of second order; 3.1.1. Notation; 3.1.2. Characteristics; 3.1.3. Canonical form of PDE; 3.2. Solving the heat equation; 3.2.1. Separation of variables
3.2.2. Separation of variables in the rectangular Cartesian coordinates3. 2.3. Orthogonality of functions; 3.2.4. Fourier series; 3.2.5. Sturm-Liouville problem; 3.2.6. One-dimensional homogeneous problem in a finite medium; 3.3. Solution by the method of Laplace transform; 3.3.1. Definition of the Laplace transform; 3.3.2. Properties of the Laplace transform; 3.4. Green's functions; 3.4.1. Green's function as auxiliary problem to solve diffusive problems; 3.4.2. Analysis for determination of Green's function; Chapter 4. Problems in Finance; 4.1. Basic stochastic models for stock prices
4.1.1. The Black, Scholes and Samuelson model4.1.2. BSS model with deterministic variation of and s; 4.2. The bond investments; 4.2.1. Introduction; 4.2.2. Yield curve; 4.2.3. Yield to maturity for a financial investment and for a bond; 4.3. Dynamic deterministic continuous time model for instantaneous interest rate; 4.3.1. Instantaneous interest rate; 4.3.2. Particular cases; 4.3.3. Yield curve associated with instantaneous interest rate; 4.3.4. Examples of theoretical models; 4.4. Stochastic continuous time dynamic model for instantaneous interest rate; 4.4.1. The OUV stochastic model
4.4.2. The CIR model (1985)

Sommario/riassunto

The aim of this book is to promote interaction between engineering, finance and insurance, as these three domains have many models and methods of solution in common for solving real-life problems. The authors point out the strict inter-relations that exist among the diffusion models used in engineering, finance and insurance. In each of the three fields, the basic diffusion models are presented and their strong similarities are discussed. Analytical, numerical and Monte Carlo simulation methods are explained with a view to applying them to obtain the solutions to the different problems pres