1. Record Nr. UNINA9910585770503321

Autore	Yao Yijun
Titolo	Vapor Intrusion Simulations and Risk Assessments / / by Yijun Yao, Qiang Chen
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2022
ISBN	981-19-2700-6
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (133 pages)
Collana	Biomedical and Life Sciences Series
Disciplina	628.53
Soggetti	Environmental monitoring Environmental management Environmental sciences - Social aspects Soil science Ecology Environmental Monitoring Environmental Management Environmental Social Sciences Soil Science Environmental Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1. Screening models of vapor intrusion -- Chapter 2. Numerical models of vapor intrusion -- Chapter 3. US EPA’s Vapor Intrusion Database and Generic Attenuation factor -- Chapter 4. US EPA’s PVI Database and Vertical Screening Distances -- Chapter 5. Preferential pathways and the building pressure cycling method -- Chapter 6. Vapor intrusion risk assessments in brownfield redevelopment.
Sommario/riassunto	This book introduces key concepts in modeling and risk assessments of vapor intrusion, a process by which the subsurface volatile contaminants migrate into the building of concern. Soil vapor intrusion is the major exposure pathway for building occupants to chemicals from the subsurface, and its risk assessments determine the criteria of volatile contaminants in soil/groundwater in brownfield redevelopment.

The chapters feature the recent advances in vapor intrusion studies and practices, including analytical and numerical modeling of vapor intrusion, statistical findings of United States Environmental Protection Agency’s Vapor Intrusion Database and Petroleum Vapor Intrusion Databases, the challenges of preferential pathways, and the application of building pressure cycling methods, and field practices of vapor intrusion risk assessments at developed contaminated sites and in brownfield redevelopment. This volume also summarizes the advantages and limits of current applications invapor intrusion risk assessment, laying the groundwork for future research of better understanding in risk characterization of soil vapor intrusion using models. Written by experts in this field, Vapor Intrusion Simulations and Risk Assessments will serve as an invaluable reference for researchers, regulators, and practitioners, who are interested in perceiving the basic knowledge and current advances in risk assessments of soil vapor intrusion.