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Titolo	Soil ecology and ecosystem services / / edited by Diana H. Wall, [and others]
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ISBN	0-19-163255-4
Descrizione fisica	1 online resource (421 p.)
Altri autori (Persone)	WallDiana H
Disciplina	577.57
Soggetti	Soil ecology 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	Cover; Contents; List of Contributors; Introduction; Section 1-The Living Soil and Ecosystem Services; Introduction; 1.1 Soil as a Habitat; 1.1.1 Introduction; 1.1.2 Conditions in soils; 1.1.3 Adaptive strategies of soil organisms; 1.1.4 Self-organization and the spatial organization of soils; 1.1.5 Discrete scales in soil function; 1.1.6 The challenge of an eco-efficient use of soils; 1.1.7 Approaches to soil ecological research; 1.1.8 Conclusions; 1.2 Soil Biodiversity and Functions; 1.2.1 Soil biodiversity; 1.2.2 How to investigate soil communities; 1.2.3 Diversity-function relationships 1.2.4 Taking a holistic view to soil diversity-ecosystem functioning1. 2.5 Conclusions; 1.3 Ecosystem Services Provided by the Soil Biota; 1.3.1 Introduction; 1.3.2 Understanding ecosystem functioning; 1.3.3 Understanding ecosystem structure: revisiting the functional group concept; 1.3.4 Understanding effects of environmental drivers and land management on ecosystem functioning and services; 1.3.5 Working with nature; 1.3.6 Landscape context; 1.3.7 Conclusions; Synthesis; Section 2-From Genes to Ecosystem Services; Introduction; 2.1 From Single Genes to Microbial Networks; 2.1.1 Introduction 2.1.2 Analyzing microbial genes to understand ecosystem functioning2.1.3 Methodological approaches to the gene-based study of microbial communities and networks; 2.1.4 Genes in microbial networks of organic matter decomposition and biodegradation of

pollutants; 2.1.5 Microbial genes in nitrogen turnover cascades; 2.1.6 Genes underlying microbial communication; 2.1.7 Microbial genes for interacting in the plant environment; 2.1.8 From genes to microbial networks: future prospects; 2.2 From Genes to Ecosystems: Plant Genetics as a Link between Above- and Belowground Processes 2.2.1 Introduction2.2.2 The role of plant functional traits in bridging species interactions with soil community dynamics; 2.2.3 The role of plant genetic variation on soil communities; 2.2.4 The role of plant genetic variation on ecosystem processes; 2.2.5 The evolutionary implications of plant-soil linkages; 2.2.6 Conclusions and future directions; 2.3 Delivery of Soil Ecosystem Services: From Gaia to Genes; 2.3.1 Introduction; 2.3.2 Ecosystem services delivery and Gaia theory; 2.3.3 At what biological levels are soil ecosystem services produced? 2.3.4 At what spatial scales can we describe and quantify soil ecosystem services?2.3.5 Use of soil ecosystem services in a policy context; 2.3.6 Conclusions; Synthesis; Section 3-Community Structure and Biotic Assemblages; Introduction; 3.1 Succession, Resource Processing, and Diversity in Detrital Food Webs; 3.1.1 The surprising diversity of soil communities; 3.1.2 From litter and carrion to soil organic matter: detrital succession in soils; 3.1.3 Mechanisms and models for detrital succession; 3.1.4 Can successional specialization explain coexistence and the diversity in soils?
3.1.5 Latitudinal gradients in soil diversity: detrital food webs thwart ecology's oldest pattern

Sommario/riassunto

This multi-contributor, international volume synthesizes contributions from the world's leading soil scientists and ecologists, describing cutting-edge research that provides a basis for the maintenance of soil health and sustainability. The book covers these advances from a unique perspective of examining the ecosystem services produced by soil biota across different scales - from biotic interactions at microscales to communities functioning at regional and global scales. The bookleads the user towards an understanding of how the sustainability of soils, biodiversity, and ecosystem services c

2. Record Nr. UNINA9910781089603321

Titolo	Molecular realizations of quantum computing . 2007 [[electronic resource] /] / editors, Mikio Nakahara ... [et al.]
Pubbl/distr/stampa	Singapore, : Hackensack, NJ, : World Scientific, 2009
ISBN	1-282-44315-1 9786612443152 981-283-868-6
Descrizione fisica	1 online resource (282 p.)
Collana	Kinki University series on quantum computing ; ; 2
Altri autori (Persone)	NakaharaMikio
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Soggetti	Quantum computers Molecular computers
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Preface; CONTENTS; Liquid-state NMR Quantum Computer: Working Principle and Some Examples; Flux qubits, Tunable Coupling and Beyond; Josephson Phase Qubits, and Quantum Communication via a Resonant Cavity; Quantum Computing Using Pulse-based Electron-nuclear Double Resonance (ENDOR): Molecular Spin-qubits; Fullerene C60: A Possible Molecular Quantum Computer; Molecular Magnets for Quantum Computation; Errors in a Plausible Scheme of Quantum Gates in Kane's Model; Yet Another Formulation for Quantum Simultaneous Noncooperative Bimatrix Games Continuous-variable Teleportation of Single-photon States and an Accidental Cloning of a Photonic Qubit in Two-channel Teleportation
Sommario/riassunto	This book provides an overview on physical realizations of quantum computing by means of molecular systems. It will be useful for graduate students and researchers interested in quantum computing from different areas of physics, physical chemistry, informatics and computer science. Each chapter is written in a self-contained manner and hence can be accessible for researchers and graduate students with even less background in the topics.