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Edizione	[1st ed. 2008.]
Descrizione fisica	1 online resource (eReference.)
Collana	Encyclopedia of Earth Sciences Series, , 1388-4360
Disciplina	631.4
Soggetti	Soil science Soil conservation Geoecology Environmental geology Agriculture Physical geography Geotechnical engineering Soil Science & Conservation Geoecology/Natural Processes Physical Geography Geotechnical Engineering & Applied Earth Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Excluding the ca. 430 glossary terms: Acid Deposition -- Acid Rock Drainage -- Acid Soils -- Acid Sulfate Soils -- Acidity -- Acrisols -- Activity Ratio -- Aggregate Stability -- Aggregation -- Agrogeology -- Agronomy -- Albeluvisols -- Alisols -- Algae -- Alkaline Soils -- Andosols -- Anthrosols -- Arenosols -- Applied Soil Geochemistry -- Base Saturation -- Biogeochemical Cycles -- Biospheric Role of Soil -- Buffers -- Bulk Density -- Calcareous Soils -- Calcisols -- Cambisols -- Capillary Pressure -- Carbon Cycle -- Carbon Sequestration -- Carbonates -- Chemical Analyses -- Chemical Composition -- Chernozems -- Chronology of Soils -- Classification of Soils: Basics -- Classification of Soils: FAO -- Classification of Soils: Soil Taxonomy -- Classification of Soils: World Reference Base -- Clay Mineral

Decomposition -- Clay Mineral Formation -- Clay Mineral Structures -- Clay Minerals: Hydrous Oxides -- Clay Minerals: Non- & Para-Crystalline -- Clay Minerals: Silicates -- Clay-Organic Interactions -- Compaction -- Computer Modelling -- Computerized Tomography -- Conductivity: Electrical -- Conductivity: Hydraulic -- Conductivity: Thermal -- Conservation -- Crusts -- Cryosols -- Denitrification -- Diffusion Processes -- Duricrust -- Durisols -- Earth Cycles -- Edaphic Constraints -- Edaphology -- Energy Balance -- Envelope-Pressure Potential -- Enzyme Activity -- Enzymes and Proteins -- Erosion -- Evaporation -- Farming by Soil -- Fauna -- Ferralsols -- Fertilizer Raw Materials -- Fertilizers: Inorganic -- Fertilizers: Organic -- Field pH -- Flocculation -- Flow Theory -- Forest Soils -- Geography of Soils -- Geochemistry in Soil Science -- Gleysols -- Gypsisols -- Heat Capacity -- Histosols -- Horizon Designations: FAO -- Humus -- Hydric Soils -- Hydrologic Cycle -- Hydrophility, Hydrophobicity -- Hygroscopicity, Hygroscopic Constant -- Imbibition -- Infiltration -- Ionic Activities -- Iron Oxides -- Irrigation -- Journals of Soil Science -- Kastanozems -- Kinetics of Solute Sorption -- Labile Pool -- Landscape and Soils -- Law of The Minimum -- Leptosols -- Lime, Liming -- Lixisols -- Luvisols -- Macronutrients -- Management of Soils -- Metal Complexing -- Microbial Ecology and Clay Minerals -- Microbiology -- Microhabitats -- Micrometeorology -- Micromorphology -- Micronutrients -- Microstructure Manipulation -- Mineral Analysis -- Mire -- Moisture Management -- Near Neutral Soils -- Neolithic Revolution -- Nitisols -- Nitrification -- Nitrogen Cycle -- Nitrogen Fixation -- Nutrient Cycling -- Nutrient Potential -- Organic Fertilizers -- Organic Matter -- Particle Density -- Particle Size Distribution -- Peat -- Pedology -- Pedogenesis -- Pedogenesis: Redox-pH Aspects -- Pedogenic Grid -- Pedoturbation -- Percolation -- Periodic Table -- Permeability -- Phase Rule -- Phaeozems -- Phosphorus Cycle -- Physical Chemistry -- Planosols -- Plant Nutrients -- Plant Roots -- Plinthosols -- Podzols -- Pollution -- Pore Size Distribution -- Pore Space, Drainable -- Pore-Size Distribution -- Profile: Physical Modification -- Puddling -- Radiocarbon Dating -- Radioisotopes -- Redox Chemistry of Soils -- Redox-pH Diagrams for Soils -- Regosols -- Rhizosphere -- Root Soil Interface -- Salt Affected Soils -- Saprolite -- Silicates -- Simulation of Soil Systems -- Sludge Disposal -- Soil -- Soil and Health Problems -- Soil Biology -- Soil Chemistry -- Soil Color -- Soil Conservation Service -- Soil Drainage -- Soil Engineering -- Soil Fertility -- Soil Forming Factors -- Soil Health -- Soil Mapping and Survey -- Soil Mechanics -- Soil Microbiology -- Soil Mineralogy -- Soil Physical Conditions -- Soil Physics -- Soil Pores -- Soil Quality -- Soil Reaction -- Soil Root Interface -- Soil Salinity and Salinization -- Soil Science -- Soil Science and Society -- Soil Solution -- Soil Stabilization -- Soil Variation -- Soil Water -- Soil Water Management -- Soils: Non Agricultural Uses -- Soils of Coastal Environments -- Soil-Solvent Interactions -- Soil-Water Management -- Solonchaks -- Solonetz -- Sorption Phenomena -- Sorption-Desorption Kinetics -- Surface Soil Water Content -- Sulfur Transformations and Fluxes -- Tests and Testing -- Thermal Regime -- Thermodynamics of Soil Water -- Thionic Soils -- Thixotropism -- Tillage -- Trace Elements -- Transport Processes -- Tropical Soils -- Umbrisols -- Ventifacts -- Vertisols -- Water Budget in Soil -- Water Content and Retention -- Water Erosion -- Water Fluxes -- Water Movement -- Weathering Systems -- Wetting Front -- Wind Erosion -- Zeta Potential.

Sommario/riassunto

Soils long have been taken for granted being so commonplace and lacking often striking features. However, soil is one of the most complex media on Earth, vital for the biogeosphere and human

civilization. With increased usage of soil for world food production, building materials, waste repositories, etc awareness has grown for the need of better global understanding of soil and its processes. The Encyclopedia of Soil Science provides a comprehensive, alphabetical treatment of basic soil science in a single volume. It constitutes a wide ranging and authoritative collection of about 160 academic articles covering the salient aspects of soil physics, chemistry, biology, fertility, technology, genesis, morphology, classification and geomorphology. The longer articles by leading authorities from around the world are being supplemented by ca 430 definitions of common terms in soil sciences. It should be emphasized though that the volume is not a dictionary but represents a compendium of knowledge. Graduate students, scientists and professionals, from a wide variety of disciplines and others who deal with the nature, processes and use of soil will have access to essential information and be directed to pertinent specialized literature. The Editor: Ward Chesworth is Professor Emeritus of Geochemistry at the University of Guelph, Ontario, Canada. He co-edited Weathering, Soils and Paleosols, and three volumes of the annual Hammond Lecture Series broadcast in part by the Canadian Broadcasting Corporation: Malthus and the Third Millennium, Sustainable Development, and The Human Ecological Footprint. He co-wrote Perspectives on Canadian Geology. In 2003 he received the Halbouty Prize of the Geological Society of America, of which he is a Fellow.
