Record Nr.	UNINA9910784642903321
Autore	Eisenbud Merril
Titolo	Environmental radioactivity [[electronic resource] ] : from natural, industrial, and military sources / / Merril Eisenbud, Thomas Gesell
Pubbl/distr/stampa	San Diego, : Academic Press, c1997
ISBN	0-08-091803-4 1-281-02495-3 9786611024956 0-08-050580-5
Edizione	[4th ed.]
Descrizione fisica	1 online resource (683 p.)
Altri autori (Persone)	EisenbudMerril GesellThomas F
Disciplina	363.1/79
Soggetti	Radioactive pollution
	Radioactive substances
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 (p. 569-639) and index.
Nota di contenuto	Front Cover; Environmental Radioactivity: From Natural, Industrial, and Military Sources; Copyright Page; Contents; Preface to the Fourth Edition; Preface to the Third Edition; Preface to the Second Edition; Preface to the First Edition; Acronyms; Chapter 1. Introduction; The Early History of Radioactivity; The Nuclear Energy Industry; Early Studies of Radioactive Contamination of the Environment; Chapter 2. The Biological Basis of Radiation Protection; Early Knowledge of Radiation Effects; Summary of Present Knowledge of Radiation Effects on Humans; Chapter 3. Radiation Protection Standards Evolution of Radiation Dose StandardsChanges in Concepts of Standards Setting; Organizations Involved in Establishing and Implementing Radiation Protection Standards; Chapter 4. Atmospheric Pathways; Properties of the Atmosphere; Deposition and Resuspension; Tropospheric and Stratospheric Behavior; Chapter 5. Terrestrial and Aquatic Pathways; The Food Chain from Soil to Humans; Transport in Groundwater Systems; Transport in Surface Water Systems; Chapter 6. Natural Radioactivity; Naturally Occurring Radioactive Substances; Natural Radioactivity in Phosphate Fertilizers

1.

	Natural Radioactivity in Building MaterialsNatural Radioactivity in Fossil Fuels; Induced Radionuclides; Natural Sources of External Ionizing Radiation; Technological Developments That Increase Human Exposure; Areas Having Unusually High Natural Radioactivity; Summary of Human Exposures to Natural Ionizing Radiation; Chapter 7. Production and Reprocessing of Nuclear Fuels; Uranium; Thorium; Average Doses from the Production and Reprocessing of Nuclear Fuels; Chapter 8. Power Reactors; Some Physical Aspects of Reactor Design and Operation; Types of Reactors Low-Level Discharges from Light-Water ReactorsReactor Accidents; Chapter 9. Nuclear Weapons; Physical Aspects of Nuclear Explosions; Short-Term Radiological Effects of Nuclear War; Some Problems of Recovery from Nuclear Attack; Worldwide Fallout from Nuclear Weapons Tests; Behavior of Individual Radionuclides from Fallout; Lung Dose Due to Inhalation of Dust from Weapons Tests; External Radiation; Chapter 10. Various Other Sources of Exposure; The Early History of Radium; Exposure from Radioluminescent Paints; Uranium and Thorium in Ceramics and Glass; Depleted Uranium Projectiles Thorium in Gas MantlesThorium in Welding Rods; Use of Specific Radionuclides (""Isotopes"") in Research and Industry; Americium-241 in Smoke Detectors; Radionuclides as Sources of Power; Transportation of Radioactive Substances; Summary of Doses Received from Various Sources; Chapter 11. Radioactive Waste Management; Low-Level Wastes; High-Level Wastes; Proposed Repositories in the United States; The Special Problems of Gaseous or Highly Soluble Long- Lived Radionuclides; Chapter 12. Experience with Radioactive Contamination Due to Accidents Fallout from the Thermonuclear Weapons Test of March 1, 1954
Sommario/riassunto	Environmental Radioactivity from Natural, Industrial, and Military Sources is the comprehensive source of information on radiation in the environment and human exposure to radioactivity. This Fourth Edition isa complete revision and extension of the classic work, reflecting major new developments and concerns as the Cold War ended, nuclear weapons began to be dismantled, and cleanup of the nuclear weapons facilities assumed center stage. Contamination from accidents involving weapons, reactors, and radionuclide sources are discussed in an updated chapter, including the latest informat