

1. Record Nr.	UNINA9910731485303321
Autore	Huston David L
Titolo	Isotopes in Economic Geology, Metallogenesis and Exploration // edited by David Huston, Jens Gutzmer
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	3-031-27897-6
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (XIII, 475 p. 151 illus., 118 illus. in color.)
Collana	Mineral Resource Reviews, , 2365-0567
Classificazione	SCI019000SCI031000SCI048000
Disciplina	551.9
Soggetti	Geochemistry Mineralogy Petrology Geotechnical engineering Geotechnical Engineering and Applied Earth Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Isotopes in economic geology, metallogeny and exploration – an introduction -- 2. Radiometric dating applied to ore deposits: theory and methods -- 3. U–Pb dating of mineral deposits: from age constraints to ore-forming processes -- 4. The 187Re-187Os and 190Pt-186Os radiogenic isotope systems -- 5. Applications of Nd isotopes to ore deposits and metallogenic terranes.
Sommario/riassunto	This open access book documents the use of radiogenic and stable isotopes to study mineral deposits from a global to the deposit scale. It includes data-sets that have been directly used in mineral exploration. Isotopic data have been key to developing models for the origin of many mineral deposit types. The book has four sections: (1) the use of radiogenic isotopes to date mineral deposits, (2) the use of radiogenic isotope mapping to understand metal sources and regional- to district-scale controls on metallogenesis, (3) the use of light stable isotopes to determine fluid and sulfur sources, and (4) the use of metallic stable isotopes to understand the sources of ore metals. Each section includes chapters on specific isotopic systems and/or mineral systems that provide information on theory, analytical methods, uses in deposit and

metallogenic studies, examples, and traps for young players.
