

1. Record Nr.	UNINA9910780890303321
Autore	Gat Joel <1926->
Titolo	Isotope hydrology [[electronic resource]] : a study of the water cycle // Joel R. Gat
Pubbl/distr/stampa	London, : Imperial College Press, c2010
ISBN	1-282-76005-X 9786612760051 1-84816-474-2
Descrizione fisica	1 online resource (200 p.)
Collana	Series on environmental science and management ; ; 6
Disciplina	551.48
Soggetti	Hydrologic cycle Stable isotopes Radioisotopes in hydrology
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	Contents; 1. The Hydrosphere - An Overview; 2. The Isotopes of Hydrogen and Oxygen; 3. Isotope Fractionation; 4. Models of Isotopic Change in the Water Cycle; 5. The Ocean System and the Marine Atmosphere; 6. Clouds and Precipitation; 7. Snow and Snowmelt Processes; 8. The Land-Biosphere-Atmosphere Interface; 9. Surface Waters; 10. Water in Soils and Plants; 11. Saline Waters; 12. Sub-Surface Waters; 13. The Continental Scale Water Balance and Its Isotopic Signature; 14. Isotopes and Climate Change; References; Appendix: Tritium in the Water Cycle; Index
Sommario/riassunto	Within the discipline of environmental sciences, the stable-isotope methodology is being increasingly used, especially in the study of the water cycle and of paleo-climatology. This book reviews the natural variability of stable isotopes in the hydrosphere, describing the physico-chemical basis of isotope fractionalism, and applying this knowledge to natural waters as they move through the hydrologic cycle from the ocean to the atmosphere, the biosphere and the lithosphere. It focuses on the processes at the surface-atmosphere and land-biosphere-atmosphere interfaces, since these are the sites

