

1. Record Nr.	UNINA9910298385503321
Autore	Depetris Pedro José
Titolo	Weathering and the Riverine Denudation of Continents / / by Pedro José Depetris, Andrea Inés Pasquini, Karina Leticia Lecomte
Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2014
ISBN	94-007-7717-5
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (98 p.)
Collana	SpringerBriefs in Earth System Sciences, , 2191-589X
Disciplina	551.352
Soggetti	Hydrogeology Geobiology Environmental geology Biogeosciences Geoecology/Natural Processes
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	Introduction -- The Commencement of Continental Denudation: Mechanical Weathering -- The Biological Path to Rock Breakdown -- Chemical Weathering Processes at Earth's Surface -- Weathering: Intensity and Rates -- The Wearing Away of Continents -- Concluding Comments.
Sommario/riassunto	In this monograph the authors present an overview of the state-of-the-art and use examples or case histories to illustrate the combined role of rock decay and rivers on continental denudation. The Earth's surface dynamics would not be conceivable without the fundamental component of rock weathering and the subsequent transport of solid debris and dissolved components to the coastal ocean through riverine drainage pathways. In other words, continental wear away is highly dependent on the mechanisms that control mineral decay. Moreover, besides the significant role played by rivers in shaping the Earth's outer skin, there is the important function that rivers perform in all geochemical cycles, mediating between the lithosphere, the hydrosphere, the biosphere and the hydrosphere. Drainage basins and the weathering of rocks that occur therein may be significant sources (or sinks) of carbon dioxide and, hence, play a significant role in

affecting the Earth's climate.
