1. Record Nr. UNINA9910132194503321

Titolo	The Galapagos : a natural laboratory for the Earth sciences / / Karen S. Harpp [and three others], editors
Pubbl/distr/stampa	Washington, District of Columbia ; ; Hoboken, New Jersey : , : American Geophysical Union : , : John Wiley & Sons, Inc., , 2014 ©2014
ISBN	1-118-85268-0 1-118-85253-2 1-118-85256-7
Descrizione fisica	1 online resource (445 p.)
Collana	Geophysical Monograph Series ; ; 204
Classificazione	SCI019000
Disciplina	508.866/5
Soggetti	Geology - Galapagos Islands Biodiversity - Galapagos Islands Biogeography - Galapagos Islands Galapagos Islands
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Co-publication between the American Geophysical Union and John Wiley & Sons, Inc."--Title page verso. Includes index.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Machine generated contents note: Table of Contents for Galapagos Monograph Foreword: Peter Grant and Randal Keynes Introductio Contrasting Volcanism in Hawai'i and Galapagos Galapagos and Easter: A Tale of Two Hotspot Eruption Rates for Fernandina Volcano: A New Chronology at the Galapagos Hotspot Center Galapagos Magma Chambers The Geology and Geochemistry of Isla Floreana, Galapagos: A Different Type of Late-Stage Ocean Island Volcanism Plate Tectonics, Evolution, and the Survival of Species: A Modern Day Hotspot A Paleogeographic Model of the Galapagos Islands and Biogeographical and Evolutionary Implications Hydrogeology of the Galapagos Archipelago: An Integrated and Comparative Approach Between Islands Controls on the Hydrological and Topographic Evolution of Shield Volcanoes and Volcanic Ocean Islands Climate and the Global Reach of the Galapagos Archipelago: State of the Knowledge Assessment of the

Chile 2010 and Japan 2011 Tsunami Events in the Galapagos Islands Patterns in Galapagos Magmatism Arising from the Upper Mantle Dynamics of Plume-Ridge Interaction Variations in Crustal Thickness, Plate Rigidity, and Volcanic Processes throughout the Northern Galapagos Volcanic Province Plume-Ridge Interaction in the Galapagos: Perspectives from Wolf, Darwin, and Genovesa Islands A Preliminary Survey of the Northeast Seamounts, Galapagos Platform Effect of Variations in Magma Supply on the Crustal Structure of Mid-Ocean Ridges: Insights from the Western Galapagos Spreading Center Helium Isotope Variations and Mantle Plume-Spreading Ridge Interactions Along the Galapagos Spreading Center .

Sommario/riassunto

"The Galapagos Islands are renown for their unique flora and fauna, inspiring Charles Darwin in the elaboration of his theory of evolution. Yet in his Voyage of the Beagle, published in 1839, Darwin also remarked on the fascinating geology and volcanic origin of these enchanted Islands. Since then, the Galapagos continue to provide scientists with inspiration and invaluable information about ocean island formation and evolution, mantle plumes, and the deep Earth. Motivated by an interdisciplinary Chapman Conference held in the Islands, this AGU volume provides cross-disciplinary collection of recent research into the origin and nature of ocean islands, from their deepest roots in Earth's mantle, to volcanism, surface processes, and the interface between geology and biodiversity. Volume highlights include: Case studies in biogeographical, hydrological, and chronological perspective understanding the connection between geological processes and biodiversity synthesis of decades of interdisciplinary research in physical processes from surface to deep interior of the earth. In-depth discussion of the concept of the island acting as a natural laboratory for earth scientists Integrated understanding of the Galapagos region from a geological perspective collectively, The Galapagos presents case studies illustrating the Galapagos Archipelago as a dynamic natural laboratory for the earth sciences. This book would be of special interest to a multidisciplinary audience in earth sciences, including petrologists, volcanologists, geochronologists, geochemists, and geobiologists"--
"This book has an international broad scope. It should be of interest to a wide multi-disciplinary audience in USA, European countries and other countries"--