1. Record Nr. UNINA9910830973403321

Titolo	Evolution of hydrothermal ecosystems on Earth (and Mars?) [[electronic resource] /] / [editors, Gregory R. Bock, Jamie A. Goode]
Pubbl/distr/stampa	Chichester ; ; New York, : Wiley, 1996
ISBN	1-282-34800-0 9786612348006 0-470-51498-1 0-470-51499-X
Descrizione fisica	1 online resource (348 p.)
Collana	Ciba Foundation symposium ; ; 202
Altri autori (Persone)	BockGregory GoodeJamie
Disciplina	574.5 574.5263
Soggetti	Life - Origin Hot spring ecology Exobiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Symposium on Evolution of Hydrothermal Ecosystems on Earth (and Mars?), held at the Ciba Foundation, London, January 30-February 1, 1996"--p. vii.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	EVOLUTION OF HYDROTHERMAL ECOSYSTEMS ON EARTH (AND MARS?); Contents; Participants; Preface; Hyperthermophiles in the history of life; General discussion I; Phylogenetic perspective on microbial life in hydrothermal ecosystems, past and present; Hydrothermal systems as environments for the emergence of life; Chemical and physical context for life in terrestrial hydrothermal systems: chemical reactors for the early development of life and hydrothermal ecosystems; Stable light isotope biogeochemistry of hydrothermal systems High temperature ecosystems and their chemical interactions with their environmentAncient hydrothermal ecosystems on Earth: a new palaeobiological frontier; The Rhynie cherts: an early Devonian ecosystem preserved by hydrothermal activity; Fossilization processes in siliceous thermal springs: trends in preservation along thermal gradients; Lipid biomarkers for bacterial ecosystems: studies of

	cultured organisms, hydrothermal environments and ancient sediments; General discussion II; The limits of palaeontological knowledge: finding the gold among the dross The role of remote sensing in finding hydrothermal mineral deposits on earthExploration strategies for hydrothermal deposits; Water on early Mars; General discussion III; Hydrothermal systems on Mars: an assessment of present evidence; General discussion IV; The transfer of viable microorganisms between blanets; Summing-up; Index of contributors; Subject index
Sommario/riassunto	This book explores the possibility that life exists on Mars. It provides an interdisciplinary overview of the early evolution of life in hydrothermal ecosystems on Earth, focusing on the problem of remote sensing and incorporating geological work relevant to the search for evidence of early life on Earth and Mars. It discusses the belief that studying thermal spring deposits as part of this search may be the best opportunity to test whether life on earth is a ""unique experiment,"" or whether there is life elsewhere in the solar system.