

1. Record Nr.	UNINA9910220048703321
Autore	Malin Bomberg
Titolo	Geomicrobes: Life in Terrestrial Deep Subsurface
Pubbl/distr/stampa	Frontiers Media SA, 2017
Descrizione fisica	1 online resource (141 p.)
Collana	Frontiers Research Topics
Soggetti	Microbiology (non-medical)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>The deep subsurface is, in addition to space, one of the last unknown frontiers to human kind. A significant part of life on Earth resides in the deep subsurface, hiding great potential of microbial life of which we know only little. The conditions in the deep terrestrial subsurface are thought to resemble those of early Earth, which makes this environment an analog for studying early life in addition to possible extraterrestrial life in ultra-extreme conditions. Early microorganisms played a great role in shaping the conditions on the young Earth. Even today deep subsurface microorganisms interact with their geological environment transforming the conditions in the groundwater and on rock surfaces. Essential elements for life are richly present but in difficultly accessible form. The elements driving the microbial deep life is still not completely identified. Most of the microorganisms detected by novel molecular techniques still lack cultured representatives. Nevertheless, using modern sequencing techniques and bioinformatics the functional roles of these microorganisms are being revealed. We are starting to see the differences and similarities between the life in the deep subsurface and surface domains. We may even begin to see the function of evolution by comparing deep life to life closer to the surface of Earth. Deep life consists of organisms from all known domains of life. This Research Topic reveals some of the rich diversity and functional properties of the great biomass residing in the deep dark subsurface.</p>

