Record Nr. UNINA9910132289503321 Subseafloor biosphere linked to hydrothermal systems: TAIGA concept **Titolo** // edited by Jun-ichiro Ishibashi, Kyoko Okino, Michinari Sunamura Pubbl/distr/stampa Tokyo, Japan:,: Springer Open:,: Imprint: Springer,, [2015] ©2015 **ISBN** 4-431-54865-3 1 online resource (xviii, 666 pages): illustrations, maps, charts Descrizione fisica Disciplina 577.799 Soggetti Oceanography Geochemistry Biosphere Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters. Sommario/riassunto This book is the comprehensive volume of the TAIGA ("a great river" in Japanese) project. Supported by the Japanese government, the project examined the hypothesis that the subseafloor fluid advection system (subseafloor TAIGA) can be categorized into four types, TAIGAs of sulfur, hydrogen, carbon (methane), and iron, according to the most dominant reducing substance, and the chemolithoautotrophic bacteria/archaea that are inextricably associated with respective types of TAIGAs which are strongly affected by their geological background such as surrounding host rocks and tectonic settings. Sub-seafloor ecosystems are sustained by hydrothermal circulation or TAIGA that carry chemical energy to the chemosynthetic microbes living in an extreme environment. The results of the project have been summarized comprehensively in 50 chapters, and this book provides an overall introduction and relevant topics on the mid-ocean ridge system of the Indian Ocean and on the arc-backarc systems of the Southern Mariana

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