

Reysenbach, A.L., Voytek, M., Mancinelli, R. (ed.): **Thermophiles Biodiversity, Ecology, and Evolution**. – Kluwer Academic/Plenum Publishers, Dordrecht 2001. ISBN 0-306-46165-X. 205 pp., EUR 79.00, USD 75.00, GBP 52.00.

This book aims to provide a source of the recent advances in the biology, biotechnology, and management of thermophilic microorganisms. The contributed chapters include research results, technical information, and reviews that highlight the state of our current knowledge of thermophiles and their habitats. Most contributors have drawn specific examples largely from the Yellowstone National Park thermal springs.

In the introduction chapter, historical background and overview of research on thermophilic microorganisms is given. The following chapters describe the microbial diversity associated with hydrothermal environments and some unusual physiologies (high pressure, high temperature, low pH, variable  $p\text{CO}_2$ ) of some of these organisms such as purple or green bacteria, cyanobacteria, and

algae.

In other chapters, papers pertaining to the ecology and evolution of microbial communities in thermal springs are presented. These papers address aspects of the ecology of thermophiles and discuss how these organisms influence their environment through their physiological activity.

The final section in the book addresses some of applications and potential uses of thermophiles in industry, including the use of carotenoids as antioxidants in food and feed preparations, bioprocessing such as TNT degradation, and coal solubilisation and desulfurisation.

The volume concludes with a discussion of ways in which the microbial organisms can be managed in areas such as national parks.

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