

Special Issue on Archaea in Deep-Sea Environments

CALL FOR PAPERS

The pioneer work by Woese and his colleagues divided prokaryotes into two groups and established the domain Archaea. While originally perceived as little more than “odd bacteria” restricted to very narrow, extreme environmental niches, later findings defied this assumption. Members of the archaeal domain are now known to populate a very wide range of environments, and we currently witness ongoing massive expansions of the archaeal branch of the Tree of Life. Furthermore, Archaea are currently acknowledged as key players in the biosphere and represent a significant fraction of Earth’s biomass, yet they still remain poorly studied and underexplored.

An ongoing surge in exploration efforts is leading to an increase in the number of isolated strains, general knowledge, and number of applications for archaea in biotechnology. Some of the most exciting results from this new wave of research in Archaea come from the exploration of deep-sea environments. This is not totally surprising, as the deep-sea is considered to be the last, great, unexplored frontier on our planet and is known to harbor the largest pool of underexplored microbial diversity. The deeper reaches of our oceans are mostly cold, dark, oligotrophic, and high-pressure environments, offering a unique setting within marine biotopes. Furthermore, the deep-sea also includes a wide range of extreme environments, such as hydrothermal vents, cold seeps, and deep-sea brines.

In this special issue, we invite authors to submit original research and review articles addressing topics associated with research of Archaea in deep-sea environments. This issue will explore a wide range of aspects.

Potential topics include but are not limited to the following:

- ▶ Diversity and ecology
- ▶ Applications, biotechnology, and bioprospection
- ▶ Metabolic diversity and biogeochemistry
- ▶ Genomics, metagenomics, and proteomics

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/archaea/adse/>.

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