



Archaea

Special Issue on

Biotechnological Uses of Archaeal Proteins

CALL FOR PAPERS

Many industrial/biotechnological processes take place under extreme conditions of temperature, pH, salinity, or pressure which are not suitable for activities of proteins from usual eukaryotic or prokaryotic microorganisms. In contrast, Archaea offer a large panel of extremophile organisms that express proteins able to remain properly folded and functional under the harshest biophysical conditions.

For years, the study of this group of organisms has uncovered archaeal proteins with unusual properties compared to their traditional counterparts, mainly to use them as biocatalysts. However, use of archeal proteins has also been reported recently to design artificial affinity reagents as alternatives to antibodies to detect, capture, or inhibit targets. These last years, with the emergence of next generation sequencing techniques to decode whole genomes and the pressure to develop “greener” industrial processes, the rate of new archeal proteins reported has significantly increased, thereby widening their potential of applications.

For this special issue, we invite investigators to contribute original research articles as well as review articles, which summarize recent findings and progresses made for using archaeal proteins as tools for various fields of biotechnologies.

Potential topics include, but are not limited to:

- ▶ Development and use of archaeal enzymes as tools for molecular biology (such as polymerases)
- ▶ Development and use of archeal proteins as scaffolds to derive affinity reagents
- ▶ Identification of new archaeal enzymes with applications for biofuel production
- ▶ Archaeal enzymes as biocatalysts for “green” chemistry
- ▶ Archaeal enzymes for medical applications
- ▶ Tailoring of archaeal proteins (protein engineering)
- ▶ Archeal homologues in crystallography

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

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First Round of Reviews

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