# *"Extremophiles and Biofilms"*

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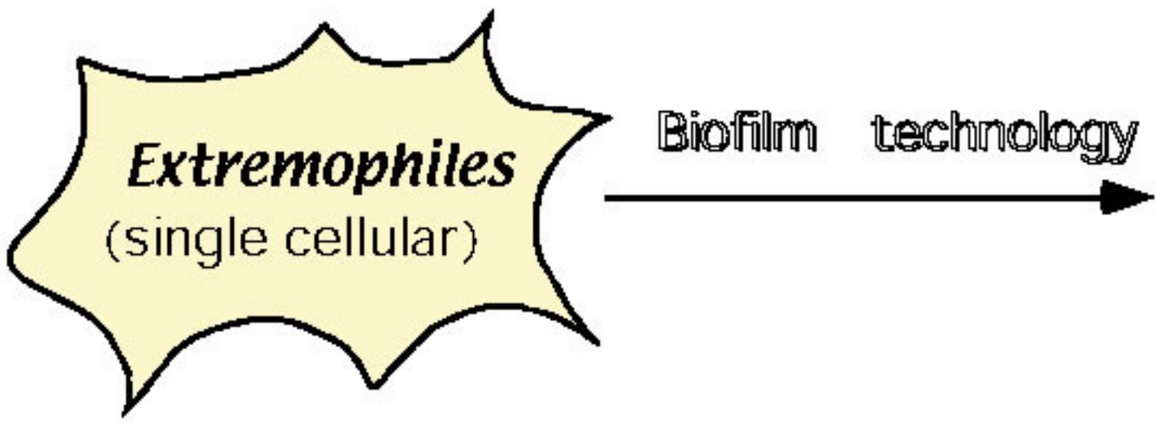
## Objectives

Most microorganisms are believed to form biofilms in nature. Nevertheless, cultivation of microorganisms in laboratory has been performed only in shaking liquid culture system, an abnormal condition. Studies on biofilm formation of pathogenic bacteria have revealed the route of infection to target tissues. Understanding biofilm formation in such industrially important microorganisms as extremophiles is therefore of interest. In this project biofilm formation technology will be applied to various extremophiles such as thermophiles, psychrophiles, and petrotrophs. This trial is expected to grant new insights into understanding their origins, development, and also to discover their novel metabolic abilities.

*Materials* *Method* *Outcome expected*




- A new insight into biological response to environments
- Microbial ecology under natural conditions
- Understanding of cell-cell network
- Discovery of novel metabolic activities
- Tracing microbial strategies to form multicellular systems

**What is a Biofilm?**

: a surface associated multicellular community exhibiting a high degree of structure

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