

Abstract

The Earth has a huge variety of living environments. Most of them, in terms of human, are affected by factors with extreme values. Species diversity, especially in the world of microorganisms, have created adaptations that help manage these conditions. Organisms, which live in these conditions, are called extremophiles. Each of them leaves a trace of their existence, whether present or past. These traces are called biomarkers and if we use appropriate method, we are able to identify them. This bachelor thesis brings a brief overview of the basic extremophiles and the environment in which they live. Furthermore, briefly describes the use of Raman spectroscopy to identify significant biomarkers, such as for the needs of exobiology.