Retrieval of fossil DNA from thermophilic bacteria in deep subsurface rocks by a newly developed DNA extraction method.

Mariko Kouduka[1]; Takeshi Suko[2]; Kazumasa Ito[1]; Yohey Suzuki[1]

[1] AIST; [2] JNES

A new method for DNA extraction was developed for deep subsurface core samples. As a result, DNA fragments derived from thermophilic bacteria were successfully obtained in Tertiary sedimentary rocks at depths below 300 m, where the in-situ temperature was around 25C. These results imply the formation of thermophilic subsurface biosphere in the geologic past.