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— ORIGINAL ARTICLE —

Denaturing gradient gel electrophoresis (DGGE) analysis of soil microbial community using standard mini-slab gel electrophoresis apparatus

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ABSTRACTS

Analytical condition of denaturing gradient gel electrophoresis using standard mini-slab gel electrophoresis apparatus was optimized and then this technique was applied to the microbial community analysis of soil bacteria, fungi, and eukaryote. Amplicons of ribosomal RNA-coded regions were separated successfully and the difference in microbial communities could be detected. In order to achieve high resolution of banding pattern in this technique, it was necessary to keep temperature of whole electrophoresis apparatus and to prepare fine gel suitable for accurate migration of amplicons.

Key words

Denaturing gradient gel electrophoresis (DGGE), Mini-slab gel electrophoresis, Soil microbes, Tris-borate-EDTA (TBE) buffer