

A simple method to screen for azo-dye-degrading bacteria

ABSTRACT

A stab-culture method was adapted to screen for azo dyes-decolorizing bacteria from soil and water samples. Decolorized azo dye in the lower portion of the solid media indicates the presence of anaerobic azo dyes-decolorizing bacteria, while aerobic decolorizing bacteria decolorizes the surface portion of the solid media. Of twenty soil samples tested, one soil sample shows positive results for the decolourisation of two azo dyes; Biebrich scarlet (BS) and Direct blue 71 (DB) under anaerobic conditions. A gram negative and oxidase negative bacterial isolate was found to be the principal azo dyes degrader. The isolate was identified by using the Biolog identification system as *Serratia marcescens*.

Keyword: Azo dyes; Stab-culture; Screening method