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SYSTEMATIC REVIEW ON BACTERIA AND MICROBES CONSORTIUM FOR CHROMIUM DETOXIFICATION IN SAFETY ENVIRONMENT

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ABSTRACT

Microbes have enormous promise for improving the efficiency of bioprocesses involving nonbiodegradable materials. Exhaustive studies showed that many bacteria capable of degrading strong materials like polyurethanes and lignocellulose. It also shown that microbial consortia outperform single strains under specific conditions related to deteriorating efficiency. It can produce microbial consortia in two different ways: either by combining several isolated strains to form a synthetic assembly from scratch, or by constructing complex microbial communities from ambient samples. The latter often uses the enrichment strategy to identify optimal microbial consortia. For instance, it enriched a termite gut-derived consortia with high xylanase activity, which was able to convert lignocellulose into carboxylates in an anaerobic environment using raw wheat straw as the only carbon source. In this article, systematic review on bacteria and microbe's consortium for chromium detoxification in safety environment has been discussed.

Keywords: Bacteria, Microbes, Consortium, Chromium Detoxification, Safety Environment.