

Hydrocarbon degrading bacteria: isolation and identification

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=118323&lokasi=lokal>

Abstrak

There is little information how to identify hydrocarbon degrading bacteria for bioremediation of marine oil spills. We have used gravel which contaminated oil mousse from Beach Simulator Tank, in Marine Biotechnology Institute, Kamaishi, Japan, and grown on enrichment culture. Biostimulation with nutrients (N and P) was done to analyze biodegradation of hydrocarbon compounds: Naphthalene, Phenanthrene, Trichlorodibenzofuran and Benzo[a]pyrene. Community of bacteria from enrichment culture was determined by DGGE. Isolating and screening the bacteria on inorganic medium contain hydrocarbon compounds and determination of bacteria by DAPI (number of cells) and CFU. DNA was extracted from colonies of bacteria and sequence determination of the 16S rDNA was amplified by primers U515f and U1492r. Twenty nine strains had been sequence and have similarity about 90-99% to their closest taxa by homology Blast search and few of them have suspected as new species.