

Abstract

Contaminated environment bioremediation Cr(VI) is currently much was done to address the problem of contamination of soil by industrial waste containing Cr(VI). Generally the process of bioremediation relies on the ability of the Microbe in the reduction of Cr(VI). Microbes are used can come from the local environment, making it more suitable to the conditions of the environment. Isolates SpR3 and SpR17 are two isolates have resistance to Cr(VI) and able to reduce Cr(VI) the liquid. Still needed a second potential testing isolates in soil environment for applied in bioremediation Cr(VI). The purpose of this research is to determine the potential reduction of Cr(VI) by using SpR17 or SpR3 isolates the ground. The stages are done is grow bacterial isolates SpR3 and SpR17, soil sterilization, inoculation of culture to the land, as well as extraction and concentration determination of Cr(VI) total of soil samples. The results of research imply that isolates being tested , namely SpR3 and SpR17 equally demonstrating ability reduction high on land. Ability reduction of Cr(VI) by SpR3 is $32.63 \mu\text{g g}^{-1}$ soil, these results are slightly lower than the ability of the reduction of Cr(VI) by SpR17 $44.59 \mu\text{g g}^{-1}$ soil. See the ability of the two isolates of bacteria reduction of Cr(VI) on the ground, open great opportunities for applying it together with the land of bioakumulator Cr(VI) contaminated soil bioremediation for Cr(VI).

Key Words : Reduktion Cr(VI), Isolates SpR3, Isolates SpR17.