

Cadmium Biosorption by *Achromobacter piechaudii* Isolated from Persian Gulf Sediments

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Abstract

The use of biological methods and microbe application to clean-up environmental pollutants have been attracted more attention in recent years. The aim of present study was to identify a resistant bacterium and to assess its ability in biosorption of cadmium. The bacterium was isolated among 3 bacteria were grown on the culture containing 100 mg/l cadmium from Khor Musa sediments located in the north of Persian Gulf. The results depicted the growth of bacteria in the presence of 10-100 mg/l cadmium. The most resistant species was identified as *Achromobacter piechaudii* strain XJUHX-6. The maximum adsorption percentages obtained at 25 mg/l concentration of cadmium in 150 minutes. According to the bacterial behavior and removal of 65% of cadmium, we can use this species for decreasing cadmium contamination in marine ecosystems.

Keywords: *Biosorption*, *Persian Gulf*, *Cadmium*, *Achromobacter piechaudii*.
