

Studies on the Biodegradation of Bunker-A Oil by
Acinetobacter sp. EL-081K

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Oil(bunker-A) degrading Microorganisms which were isolated from marine environment by enrichment culture technique. The isolated strain which had the highest biodegradability was designated as EL-081K. The results, the identification of the isolated strain EL-081K, growth characteristics and biodegradation rate on oil, detergents addition effect, resistance to several antibiotics, oil biodegradation capacity test, and effect of the temperature, were as follows. The isolated strain EL-081K was identified as *Acinetobacter* from the results of morphological, cultural and biochemical test. The optimal condition of medium for the growth and biodegradation of oil was : the initial pH, 7.2; oil, 10ml/l; ammonium sulfate, 0.1%. The biodegradation rate of oil was about 36%. The isolated strain was resistant to kanamycin, chloramphenicol, tetracycline, ampicillin, streptomycin, and penicillin, but sensitive to rifampicin. Its minimal inhibitory concentration(MIC) :tetracyclin, 50ug/ml; kanamycin, 100ug/ml; ampicillin, streptomycin was 500ug /ml;penicillin, 800ug/ml. Biodegradability was fine in the optimummedium added 10ppm Span 80.