Title: Comparison of Aerobic and Anaerobic Bioremediation of Polluted Water Samples

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Abstract: The study of aerobic and anaerobic bioremediation of treated and raw crude polluted water samples each seeded with Aspergillus niger (fungi) and Pseudomonas aeruginosa (bacteria) has been investigated. It was found that the rate of aerobic bioremediation of the two polluted water samples was faster than that of anaerobic bioremediation. With bacteria, it took 35 days for aerobic bioremediation to significantly remediate the treated crude polluted water by 98.8% and 99.9% in 45 days, while with fungi the same samples biodegraded by 92.3% in 35 days and 95.8% in 45 days. In comparison, the anaerobic bioremediation of the raw crude polluted water seeded with bacteria, biodegraded by 55.32% in 35 days and by 76.3% in 45 days while with fungi, bioremediation was 39.2% in 35 days and 56% in 45 days. Anaerobic bioremediation of the two polluted water samples with either bacteria or fungi was only significant after 65 days.