



Paper (7)

Bioremediation of some chemical pollutants from Fayoum industrial area

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Bioremediation of industrial wastewater using algae and bacteria is the main goal of this study. Samples were collected from industrial drain water of chemical industrial area (KomOshem, Fayoum, Egypt). The main microorganisms tested in this study were *Chlorella vulgaris* and *Micrococcus luteus*. The growth of algae and bacteria on wastewater was estimated either singly or dually regarding their efficiency in biodegradation of pollutants of wastewater.

The results revealed that *C. vulgaris* and *M. luteus* caused a removal of nitrogen, phosphorus, potassium and magnesium from wastewater either singly or dually. Dual bio treatment achieved the best removal of pollutants from waste water. It reduced phosphorus by a percentage of (78.71%), nitrate (65.46%), potassium (49.9%) and magnesium (78.8%) within incubation period of 16 days.