

عنوان مقاله:

EVALUATION OF THE EFFECT OF SOIL BACTERIA AND TEXTILE WASTEWATER BACTERIA ON DECOLORIZATION OF RUBIN DYPRESY AND METHYL RED COLORS

محل انتشار:

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خلاصه مقاله:

Background and Aim: Azo dyes, are the most commonly used colors, in textile industry. These colors are considered as environmental pollutant. These colors with industrial wastewater, enter the environment and pollute the ecosystem. The purpose of this study, was to isolate and identify of bacteria with ability of biodegradation of Methyl Red and Roubin Dyprsy colors from wastewater of dyeig workshops. Methods: In this study were used of samples like: soil and two wastewater of dyeing workshops. The samples were cultivated on a nutrient agar (N.A) medium containing the colors. After checking, many bacterial colonies were isolated. After purification of colonies, 100 µl of bacteria stoks was inoculated into the medium containing nutrient broth (N B) with pH= 7 and the colors with concentration of 200 ppm . Then the samples were incubated at 30° C for 6-7 days. The samples were separate and check after centrifuged, in appropriate wavelength for each color (450 nm for Roubin Dyprsy and 490 nm for Methyl Red) and decolorization percentage of samples were measured by specterophotometr device. Results: The eight of isolates gram-positive cocci and cocobacil, showed the highest ability to decolorization of colors. The highest decolorization was observed 46.84% for Ruby Dipersy color by O3 isolate and for Methyl Red color 80% by Y4 isolate. Conclusion: The results showed that native strains under applicable condition, can be used for biodegradation .of industrial dyes

كلمات كليدى:

Wastewater, Soil, Bacteria, Decolorization, Azo Dyes, Rubin Dyprsy, Methyl Red

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