

Vol. 10 (2): 375-384 (2020)

INVESTIGATION OF DYE REMOVAL PERFORMANCE USING FUNGUS FROM SYNTHETIC WASTEWATER CONTAINING MALACHITE GREEN

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Received March 2020; Accepted April 2020; Published May 2020;

DOI: <https://doi.org/10.31407/ijeess10.218>

ABSTRACT

Mushrooms carry out important tasks within ecosystems. They have very important ecological tasks that other organisms cannot do. They help materials that cannot be broken down by many organisms to blend into nature and participate in the environmental cycle. Mushrooms can attract some inorganic and organic structures due to their ability to accumulate. In this research, the success of pollutant removal, such as dye and heavy metal removal, of colored wastewater prepared with the dye named Malachite Green (C.1 Basic Green 4) was investigated. The fungi types used in the study are as follows; *Pleurotus ostreatus* (Jacq.) P. Kumm., *Fomes fomentarius* (L.) Fr., *Agaricus bisporus* (J.E. Lange) Imbach, *Russula Delica* Fr., *Armillaria mellea* (Vahl) P. Kumm. Colored synthetic wastewater with an initial concentration of 48 mg/L was used. As a result of experimental research, approximately 80% of dye removal was achieved under optimum conditions.

Keywords: Malachite Green, Adsorption, Mushrooms, Dye, Removal