



## Experimental study to removal of methylene blue dye from aqueous solution by adsorption on eco-frendliy materials

Jasim M. Salman<sup>1\*</sup>, Maysam A. Baiee<sup>2</sup>, Alaa R. Omran<sup>3</sup>

<sup>1</sup>Department of Biology ,College of Science ,University of Babylon , Hilla, 5001, Iraq.

<sup>2</sup>College of Ecology ,AL-Qasim Green University , Hilla, 5001, Iraq.

<sup>3</sup>Environmental Research Center, University of Babylon , Hilla, 5001, Iraq.

**Abstract :** The aim of percent work is examination ability of aquatic plant (*phragmiat australies*) as adsorbent material of removal methylene blue dye from aqueous solution. Aquatic plant was collected from local habitat in iraq as low cost, available, active adsorbent. Batch experiments were conducted to obtain optimum removal conditions, such as concentration of dye, adsorbent dosage, contacted time, and pH of dye solution. The results show higher efficiency of removal was 94% , the equilibrium time was 80 min, and the removal dye efficiency in the basic media was higher than the efficiency in the acidic media.

**Keywords:** Adsorption, Removal, Methylene Blue dye , Zero point Charge, Textile effluents, *phragmiat australies*.

Jasim M. Salman *et al* /International Journal of ChemTech Research, 2016,9(6),pp 560-566.

\*\*\*\*\*