

SORPTION STUDY OF ALPHA-CYPERMETHRINE BY SPENT TEA LEAVE.

Ibraheem, M. A.*

*Lecturer Assistant - Chemistry Department- College of Science - University of Diyala

E-mail: Muaathe.aziz@yahoo.com

ABSTRACT

This study examines the sorption ability of spent tea leaves to alpha-Cypermethrin, at constant temp fixed to 36°C, and different concentrations, ability of the sorbent to remove the pesticide was proved at concentration less than 10 ppm with an efficiency up to 98.77%. Many kinetic model were applied, the pseudo second order model gives more compatibility with experimental results, as well Langmuir model that suggest monolayer sorption. According to the study the maximum sorption capacity was found to be about 4.22 mg/gm. pseudo first order mode and Freundlich model had failed to give interpreting of sorption reaction rate, two parameters were playing role of such results the high temperature of sorption and the extra speed of mixing the sorbent agent.

Key words: Sorption, Pesticide, Cypermethrin, Tea leave .