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Dedication

To the soul of my grandfather,

My grand mother

To my father and mother,

My family and

friends

Acknowledgment

First of all I render my thanks and prayers to God who offered me the health and strength to accomplish this work.

I would like to thank my supervisor Dr. Omer Ibrahim Eid for his guidance, help and encouragement to make this work possible.

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Abstract

On this thesis laser induced fluorescence (LIF) technique, was used to study the effect of magnetized water as source of irrigated for plant. The hydra is planted in sand soil and clay soil; both were irrigated with normal & magnetized water.

A comparison took place between the intensity & the area under the curve of spectra absorb for the hydra irrigated with normal & magnetized water.

Fe, Mn elements are playing an important role in photosynthesis process. According to that we have observed the changes occurred in the LIF spectra for change at this element.

It has been noticed that there is an increase in absorption of the iron by the hydra when planted in sand soil and irrigated with magnetized water.

The LIF spectra showed many elements that played others roles different than photosynthesis process, but those were out of the scope of this study.

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الخلاصة

في هذه الأطروحة استخدمت تقنية التفلر بالحث الليزري لدراسة تأثير الماء الممغنط علي نبات (الهايدرا) تم زراعته في تربه رملية وأخرى طينية، الترتين روياء بماء عادي وماء ممغنط.

تمت المقارنة للشدة والمساحة اسفل المنحنى اللطيف الممتص بواسطة النبات المروي بماء عادي وماء ممغنط.

عنصر الحديد والمانجنيز من العناصر التي لها دور مهم في عملية التمثيل الضوئي, لذلك تم دراسة تغيير طيف LIF الذي يحدث لهذه العناصر.

لاحظنا ان هناك زياده في امتصاص الهايدرا للحديد المزروع في تربه رملية والمروي بماء ممغنط.

هنالك عناصر أخرى لها أدوار أخرى غير عملية التمثيل الضوئي ولم تضمن ضمن هذه الدراسة.