

الآية

قال تعالى:

فَتَعَالَى اللَّهُ الْمَلِكُ الْحَقُّ ۖ وَلَا تَعْجَلْ بِالْقُرْآنِ مِنْ قَبْلِ أَنْ يُقْضَىٰ
إِلَيْكَ وَحْيُهُ ۖ وَقُلْ رَبِّ زِدْنِي عِلْمًا (114)

صدق الله العظيم

سورة طه

Dedication

To my family, specially to my parents, who gave me self confident, happiness, knowledge and education. To my daughter, to those who guided and supported me to achieve goals.

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First of all, thanks to God for guiding me to conduct this study. I am profound grateful to express my appreciation and thanks to my supervisor prof. Mubarak Dirar and Dr. Faiz. at Sudan University of science and technology, Graduate College and Faculty of Science department of physics; for their continues guidance, advising and encouraging during preparing the thesis.

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Abstract

In this work six samples from Bougainvillea spp1, Citrus Sinesis, Canna Indica, Ixora Coccinia, Bougainvillea spp2 and Citrus Paradisi living under sun light beside 6 samples from the same plants living in shadow were exposed to Nitrogen laser for 0.0125 seconds. The ultrasound wave emitted by them was detected by ultrasound detectors. It was found that Bougainvillea spp1 leaves produce ultrasound frequencies 0.0041×10^{17} and 0.0042×10^{17} Hz, Citrus Sinesis leaves produce frequencies 0.0040×10^{17} , 0.0039 , 0.0038×10^{17} , 0.004×10^{17} 3 Hz, Canna Indica leaves produced frequencies 0.0040×10^{17} , 0.0043×10^{17} , 0.0039×10^{17} , 0.0038×10^{17} and 0.0035×10^{17} Hz, Ixora Coccinia leaves produce frequencies 0.0041×10^{17} , 0.0043×10^{17} , 0.0039×10^{17} and 0.0038×10^{17} Hz, Bougainvillea spp2 leaves produce frequencies 0.0042×10^{17} , 0.0045×10^{17} , 0.0039×10^{17} , 0.0034×10^{17} , 0.0031×10^{17} , and 0.0043×10^{17} Hz. Citrus Paradisi leaves produce frequencies 0.0041×10^{17} , 0.0042×10^{17} and 0.0040×10^{17} Hz.

المستخلص:

في هذه الدراسة اخذت مجموعتان من الاوراق النباتية و التي تضمنت نوعين من الجهمية ، البرتقال ، الكنة، الاكزورا والقريب فروت. حيث كانت المجموعة الاولى منها معرضة لضوء الشمس المباشر بينما الاخرى موضوعة في الظل.

تم تمرير ليزر النيتروجين على المجموعتين لفترة 0.0125 ثانية ثم تم قياس مقدرة كل مجموعة لتوليد الموجات فوق الصوتية باستخدام كاشف الموجات فوق الصوتية. ابانت النتائج ان الجهمية من المجموعة الاولى اعطت موجات فوق صوتية كان ترددها $10^{17} \times 0.0042$ و $10^{17} \times 0.0041$ هيرتز والبرتقال اعطى موجات فوق صوتية كان ترددها $10^{17} \times 0.0040$ و $10^{17} \times 0.0039$ و $10^{17} \times 0.0038$ و $10^{17} \times 0.0043$ هيرتز. ونبات الكنة اعطى موجات فوق صوتية كان ترددها $10^{17} \times 0.0040$ و $10^{17} \times 0.0039$ و $10^{17} \times 0.0038$ و $10^{17} \times 0.0043$ و $10^{17} \times 0.0035$ هيرتز. نبات الاكزورا أعطى موجات فوق صوتية كان ترددها $10^{17} \times 0.0041$ و $10^{17} \times 0.0043$ و $10^{17} \times 0.0039$ و $10^{17} \times 0.0038$ هيرتز. و أعطت الجهمية من المجموعة الثانية موجات فوق صوتية كان ترددها $10^{17} \times 0.0042$ و $10^{17} \times 0.0045$ و $10^{17} \times 0.0039$ و $10^{17} \times 0.0034$ و $10^{17} \times 0.0031$ و $10^{17} \times 0.0043$ هيرتز. بينما القريب فروت اعطى موجات فوق صوتية كان ترددها $10^{17} \times 0.0041$ و $10^{17} \times 0.0040$ و $10^{17} \times 0.0042$ هيرتز.

ومن خلال النتائج التي تم الحصول عليها يمكن ان نخلص الى انه ليس هنالك ارتباط ذو قيمة معنوية بين ترددات العينات المعرضة لضوء الشمس المباشر و تلك التي تنمو في الظل.

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