

قال تعالى))

لِلَّهِ مَا فِي السَّمَوَاتِ وَالْأَرْضِ إِنَّ اللَّهَ هُوَ الْغَنِيُّ الْحَمِيدُ ﴿٢٦﴾ وَلَوْ
أَنْتُمْ فِي الْأَرْضِ مِنْ شَجَرَةٍ أَقْلَمَ وَالْبَحْرُ يَمُدُّهُ مِنْ بَعْدِهِ سَبْعَةُ أَبْحُرٍ
مَا نَفِذْتُ كَلِمَتُ اللَّهِ إِنَّ اللَّهَ عَزِيزٌ حَكِيمٌ ﴿٢٧﴾ مَا خَلَقَكُمْ وَلَا بَعَثَكُمْ
إِلَّا كَنَفْسٍ وَاحِدَةً إِنَّ اللَّهَ سَمِيعٌ بَصِيرٌ ﴿٢٨﴾

(27) ..

DEDICATION

*I DEDICATE THIS THESIS
TO :-*

MY PARENTS,

FAMILY

Specially to my son Mohamed

&

*WHOM GIVE ME THIS
HOPES*

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Abstract

The main idea of this thesis is to design and fabricate an infra-red detector, specially the disk type of NTC thermistor. And to test it's operation and response to different levels of laser power .

The challenge of the fabrication arise from the chemical, physical and electronic thermistor features. In order to get perfect and good response, a certain semiconductor oxides ratio prepared and milled with special size and shape under tones of pressure. Then sintered above thousand of temperature degrees, and finally coated and attached with the legs to get the thermistor.

An electronic circuit consist of some amplifiers, comparator and reference voltage was used to test the disk thermistor operation.

Finally different levels of Nd:YAG laser power were used to test the fabricated thermistors. The results are very promising and the best ratios of the mixture could be easily determined.

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