



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

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بعض الوثائق الأصلية تالفة



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بالرسالة صفحات
لم ترد بالأصل

Interaction of laser with Some Ceramic Materials

Thesis

Submitted to N.I.E.S
In the partial fulfillment of the requirements

For the
Master degree of science

In
Laser interaction with matter

By
Randa Saad Ali Hassan

Under the supervision of:

Prof. Dr. Yehia Badr
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Cairo University

B
1-CVA

APPROVAL SHEET

Title of Thesis: Interaction of Laser with Some Ceramic Materials

Name of the candidate: Randa Saad Ali Hassan

**Submitted to:
National Institute of Laser Enhanced Science (N.I.L.E.S)
Laser Interaction with matter department**

Supervisors

Prof. Yehia Badr: -----

Assist. Prof. Hussein Abd Elmoneim: -----

Dr. Tarek Atwee: -----

Date Approved: -----

NOTE

Besides the work carried out in the thesis, the candidate had Attended post graduate courses for two years in laser interaction with matter covering the following topics.

In the first year (2001)

- 1) Laser Physics
- 2) Laser Application and safety system
- 3) Diagnostics techniques
- 4) Optoelectronics and electronic optics
- 5) Laser Interaction with matter
- 6) Computational methods
- 7) Seminar
- 8) Laser Lab.

In the second year (2002)

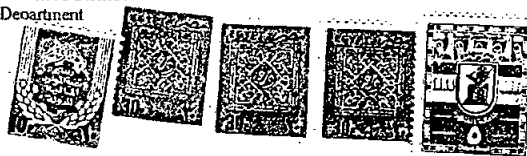
- 1) Advanced Laser Physics
- 2) Plasma Laser Interaction
- 3) Advanced Laser Interaction with matter
- 4) Advanced Diagnostics techniques
- 5) Selected topics
- 6) Laser Interaction Lab. & Project

She had successfully passed a written examination in these courses.

Prof. Dr. Yehia Badr

Head of Laser Interaction
With Matter (NILES)


Cairo University
National Institute of Laser Enhanced Sciences
Post Graduate Studies Department



Certificate

This is to certify that: **Randa Saad Ali Hassan.**

Sex: Female Nationality: Egyptian Born in: Giza On: 1/6/1977
has attended and passed successfully the following postgraduate Diploma Courses from
Laser interaction with matter with a general grade of "Good", during the academic
year September 2001.

No.	Course	Grade
1	Laser physics	Very Good
2	Laser application and safety system	Very Good
3	Diagnostics techniques	Good
4	Optoelectronics and electronic optics	Pass
5	Laser interaction with matter	Very Good
6	Computational methods	Excellent
7	Seminar	Very Good
8	Laser lab	Excellent
General Grade		Good

* Date of the institute board approval: 8/12/2001

* Date of the university rector's approval: 10/1/2002

This certificate is issued at her own request.

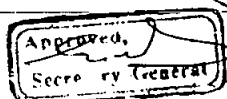
M. Soliman
Post Graduate
Director
S. Zetta

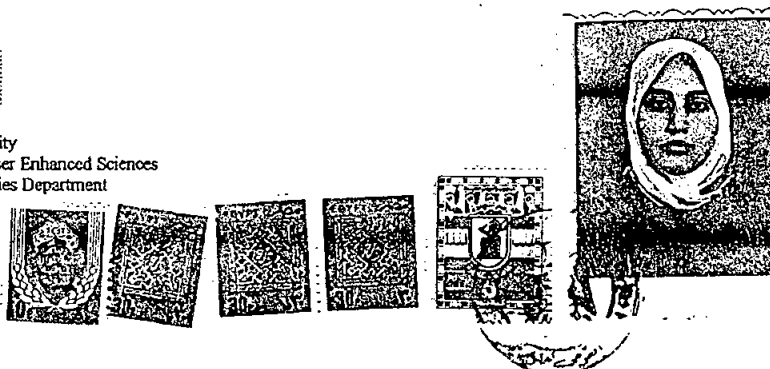
Vice Dean
Mona Soliman
Ass. Prof. Mona M. Soliman



Dean
Prof. Dr. M. Abdel Harith
Hisham Shokeir

Approved: *[Signature]*
12-1-2005
12-7-2005





Statement

This is to certify that **Randa Saad Ali Hassan**.

Sex: Female Nationality: Egyptian Born in: Giza On: 1/6/1977
has attended and passed successfully the following postgraduate courses as a partial fulfillment of the requirements for the Master degree of Laser interaction with matter during the academic year September 2002.

The degree will not be awarded unless the thesis is accepted.

No.	Course	Grade
1	Advanced laser physics	Very Good
2	Plasma laser interaction	Very Good
3	Advanced laser interaction with matter	Excellent
4	Advanced diagnostic techniques	Good
5	Selected topics	Excellent
6	Laser interaction lab. & project	Excellent

This is issued upon the request of the applicant.

H. P. H.
Post Graduate
Director

Fizette

Vice Dean

Mona Soliman

Ass. Prof. Mona M. Soliman

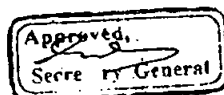
Dean

Hasham Shokeir

Dr. M. Abdel Harith



Approved *sign*
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