

CV



Ayman Abou El Magd

Name: Ayman Mahmoud Ahmed Abou-El-Magd

First Name: Ayman

Family Name: Abou-El-Magd

Sex: Male.

Nationality: Egyptian.

Marital Status: married,

Date of birth: 15-09-1961

Place of Birth: Cairo, Egypt

Permanent Address: 5B El-Nasr Buildings, flat 45, New Maadi, Cairo, Egypt.

Position Held: University Lecturer

Lasert Technology consultant.

Job address: National Institute of Laser Enhanced Sciences (NILES), Cairo
University, Giza, Egypt.

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EDUCATION

B.Sc. in physics, from, Faculty of sciences, Cairo University Cairo University, Egypt,
(1986)

Diploma in Laser Interaction with matter , National Institute for Laser Enhanced Science
(NILES), Cairo University, Egypt, (2001).

Diploma in Laser Systems , National Institute for Laser Enhanced Science (NILES), Cairo University, Egypt, (2002).

MSc. in Laser Science, Laser Systems Department, National Institute for Laser Enhanced Science (NILES), Cairo University, Egypt, (2006), Thesis entitled " Evaluation of a homemade micro- machining diode laser system as compared with short and ultra short laser pulses"

PhD. in Laser Science, Laser Systems Department, National Institute for Laser Enhanced Science (NILES), Cairo University, Egypt, (2009). Thesis Entitled " Utilization of Pulsed Laser Deposition (PLD) in Quantum Dot Optical Detectors"

EXPERIENCE

10/1987 - 12/1990

working as Physics Specialist laboratory of Laser physics, Faculty of sciences, Cairo University.

4/1994 – Present

working as Laser specialist in National Institute for Laser Enhanced Sciences and its Applications, (NILES), Cairo University, egypt

7/1992 - 4/1994

working as Laser specialist in Institute Fur Laser Und PlasmaphysikHeinrich Heine Universtat, Duesseldorf, Gyrmany,

1995 tells 1998.

Working as experimental physics specialist in KSU in Riyadh

2001-2002.

working as Laser specialist in ODU (Old Dominion University), Norfolk, Virginia, USA.

4/1994 - Present

working as Laser specialist in National Institute for Laser Enhanced Sciences and its Applications, (NILES), Cairo University,

EXPERIMENTAL SKILLS

- Applying Quartz Crystal Microbalance (QCM) technique to investigate the friction of

deposited masses from the vapor phase on evaporated metal thin films.

- Computerizing data taking devices.
- Writing programs in Labview to control data acquisition systems.
- Designing, building, and maintaining Ultra High Vacuum systems.
- Operating Electron beam evaporators.
- Working with High voltage equipment.
- Design and performance of an optical probe system -Design and performance of a computerized D.C. power supply
- Design and performance of a computerized Langmir probe power supply system. -Design and performance of advanced triggering system, which used in time resolving measurements. -Time resolving Thompson scattering. -Hollow cathode arc. -CARS - Optical fiber. -Laser Diodes. -Optical communications. -Tokomak Plasma. -Ultra high power microwave pumped CO₂ Laser. -Microwave protection systems. -Optical probs. - Design and performance of fast photo diode detection system (double optical probe system) -Large experience with the Or-Cad program. -Design and performance of a computerized stepping motor controller.
- Design and performance of a computerized thin film thickness monitor. -Optimizing low presser TE CO₂ Laser. -Microwave Plasma. -Different plasma sources. -Laser induced plasma experiments. -Electric circuit discharge design. -CO₂ welding and cutting research.
- Design and performance of a computerized multi boat system for coating units. For multi layers coating.
- Design and performance of a computerized D.C. power supply, Frequency counter, triggering systems and stepping motor driving systems -Design and performance of a computerized stepping motor controller. -CO₂ Laser research (high and low power) - Plasma research using different types of lasers -Design and performance Solid state laser (Nd:YAG) laser
- Nd:YAG Laser Design, construction and research. -Optical and electronic microscope. - Ultra high vacuum systems. -Imaging processing. -Coating unit and thin film preparation. - Nitrogen Laser system. -Computer hardware and soft ware for the system control.
- Electronics design and constructing of the PCB. -Design and constructing of the high voltage circuit working with more than 80 KV. -Working with the high vacuum systems and optical systems. -Optical systems design.
- Large Experience in working with femtosecond laser systems,
- Large Experience in working with Pulsed Laser Deposition systems (PLD),

COMPUTER SKILLS

Writing, troubleshooting and running programs in Basic, visual basic, Pic Basic, and graphical (Labview) languages. Using Power point, Microsoft word, origin...etc.

Languages:

Excellent command of Arabic and English, Good in German and some knowledge of French

PUBLICATIONS

- ” Pressure dependence of the electrical potential and electron temperature in microwave plasma “ IEEE transaction on plasma science, USA, (feb.1992).
- Computerized thin film thickness monitor in the third workshop of plasma and Laser technology, Cairo (1990).
- The electron temperature in plasma induced by microwave in the third workshop of plasma and Laser technology, Cairo (1990).
- Measurement of Fluctuations in a Magnetized Plasma by Time Resolved Thomson Scattering and Optical Probing/, Proc. of the 21st Int. Conf. on Phenomena in Ionized Gases vol. II, Hrsg. G. Ecker, U. Arendt und J. Böseler, Arbeitsgemeinschaft Plasmaphysik, Bochum, Germany, 32 (1993)
- Study of oscillating magnetized hollow cathode arcs by time-resolved Thomson scattering measurements, Plasma phys. Control. Fusion 37 UK (1995)
- A modified protocol for laser-mediated gene transfer in wheat, Arab Journal of Biotechnology, volume 7, number 2, (2004).
- Design and performance of optical detectors fabrication setup using pulsed laser deposition (PLD), The 7th international conference of Laser application, held in Cairo, (2009).
- Additional five articles in Germany, USA, England (1992 – 1994).

ADDITIONAL INFORMATION

- Working as experimental physics specialist in KSU in Riyadh from 1994 till 1998.
 - Teaching experimental physics for five years in the faculty of sciences, Physics department, KSU in Riyadh from 1994 till 1998.
 - Training in Germany in Institute Fur Laser Und Plasmaphysik, Heinrich Heine Universtat, Dusseldorf, (17-07-1992-15-03-1994)
 - Attendance of the winter school in the Laser physics & technology, Ismaelia, Egypt, (Feb. 1988), -Attend the second workshop on Plasma & Laser Technology, Cairo, Egypt (1989)
 - Attend the third workshop on Plasma & Laser Technology, Cairo, Egypt (1990)
 - Attend the fourth workshop on Plasma & Laser Technology, Cairo, Egypt (1992)
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- Attend the International Conference in Plasma and its Technology, Bouchom Universitats, Germany (1993)
- Attend the fifth workshop on Plasma & Laser technology, Cairo, Egypt (1994),
- Attend the international conference Laser and its technology, Cairo, Egypt (1998)
- Attend the workshop on Plasma & Laser technology, Cairo, Egypt (2001),
- Attend the international conference Laser and its technology, Cairo, Egypt (2001)
- Attend the 4th Euro-Mediterranean conference on Laser and Photobiology applications in Medicine, Environment and Biotechnology, Cairo, Egypt (2001)

- Attend the international conference Laser and its Applications (ICLA), Cairo, Egypt (2009)

- Attend the international Spring School in nanostructure semiconductor, Julich, Germany (2010)

- Attend the international Spring School in Solid-State, Soft-Matter and Biophysics Research, Julich, Germany (2011)

- Attend the international Spring School in Julich, Germany (2012)

- Attend the international Spring School in Solid-State, Quantum Information, Julich, Germany (2013)