

Thin Films Laboratory

Physics Department, Faculty of Education, Ain Shams University



MAHMOUD M. EL-NAHASS

Professor of Solid State Physics



Personal Information:

Date of Birth: 07/07/1948

Sex: Male

Nationality: Egyptian

Marital Status: Married and have children

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Degrees obtained:

- PhD in Solid State Physics, Ain Shams University, Egypt, 1981.
Titled with "Photovoltaic Properties of Some Thin Solid Films"
- MSc in Solid State Physics, Ain Shams University, Egypt, 1977.
Titled with "Optical Properties of Solids"
- Bachelor of Science (Physics), Ain Shams University, Egypt, 1972.
- Bachelor of Science and Education (Physics & Chemistry), Ain Shams University, Egypt, 1970.

Professionals' appointments:

- Head of Physics Department, Faculty of Education, Ain Shams University, 2008-2009
- Professor, Physics Department, Faculty of Education, Ain Shams University, 1992 to date.
- Professor associate, Physics Department, Faculty of Education, Ain Shams University, 1986-1992.
- Lecturer, Physics Department, Faculty of Education, Ain Shams University, 1981-1986.
- Lecturer associate, Physics Department, Faculty of Education, Ain Shams University, 1977-1981.
- Demonstrator, Physics Department, Faculty of Education, Ain Shams University, 1970-1977.

Research Project

Completed

Project entitled "*The utility of organic solar cells as a renewable source of energy*" funded by Ain Shams University, Cairo, Egypt (2005-2007)

Project entitled "*Fabrication of solar cells from thin films of organic semiconductors*" funded by Ain Shams University, Cairo, Egypt (2008-2011)

Under Progress

Project entitled "*Preparation and Characterization of Low Cost Solar Cells Using Environmental Waste*" funded by Science and Technology Development Fund (STDF).

Fields of Research

- Optical properties of thin films,
- Physical properties of semiconductors (thin films and crystals)
- Physical properties of organic materials thin films.
- Photovoltaic of solar cells (organic and inorganic materials).
- Molecular modeling.
- IV, CV, deep level transient spectroscopy (DLTS) and high resolution Laplace DLTS.

Memberships in Academies Societies

- Member of the Egyptian promotion committee at Supreme council of Egyptian Universities for Professors of Physics (2012-2015).
- Member of the Egyptian promotion committee at Supreme council of Egyptian Universities for Professors & assistant Professors of Physics (2008-2012).
- Member of the Editorial board of Journal of International photoenergy since 2012.
- The Egyptian Materials Research Society.
- Arab Society of Materials Science.
- The Egyptian Society of Solid State Science and & Applications.
- The Egyptian Society of Crystallography & its Applications.
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Publication

- Published more than 205 articles including different topics of research.

Professional Activities

Theses Supervised

Supervisor on up to **28** MSc theses

Supervisor on up to **28** PhD theses

Awards and honors:

The Egyptian National Prize for Excellence in Basic Science “Physics” (2012).

Teaching Experience

Undergraduates:

- Physical Optics
- Advanced Optics and Laser
- Electricity and magnetism
- Electrostatics
- Electrodynamics
- Solid State I
- Solid State II

Postgraduates:

- Optical and Magnetic Properties of Semiconductor
- Optoelectronic devices
- Thin Film Technology

Editor

International Journal of Photoenergy

Journals Reviewing:

- Solar Energy Materials and Solar Cells.
- Journal of Non-Crystalline of Solid.
- Physica B: Condensed Matter.
- Journal of Materials Science.
- Journal of Optical Materials.
- Vacuum.
- Egyptian Journal of Solids.
- Jordan Journal of Physics.
- Current organic chemistry
- Journal of Alloys and Compounds
- Applied surface science
- IONICS
- Crystal Research and Technology
- Materials Sciences and Applications
- Optical Materials
- Vibrational Spectroscopy
- European Physical Journal Applied Physics