

CURRICULUM VITAE

Name / Current Job	Dr. HAFIZ RASHAD HAFIZ / Associate Professor of Physics		 <i>Dr. H. R. Hafiz</i>
Date of Birth	6 th September 1963		
Father's Name	Rashad Hafiz Abdelaal		
Sex	Male		
Nationality	Egyptian		
Marital Status	Married (Three Child)		
Address	(Residence)	27 Moaskar Street, Galaa Street, 35516, Mansoura, Egypt.	
	(Permanent)	Materials Science Laboratory, Physics Department, Faculty of Science, University of Mansoura, Egypt, 35516 Mansoura, Egypt	
Telephone	(Office/Labora tory)	002-050-2242388(ext 105/9356)	
	(Residence)	002-050-2219751	
Fax	002-050-2246781		
E-mail	hrhafiz@yahoo.com		
Mobile			

EDUCATIONAL QUALIFICATIONS

DEGREE	PLACE	YEAR	SUBJECT
B.Sc.	University of Mansoura, Egypt	1985	Physics and Mathematics
M.Sc.	University of Mansoura, Egypt	1989	Physics
Ph.D.	University of Mansoura, Egypt + Mac-Planck-Institute (MPI-P) For Polymer Research, Mainz, Germany	1993	Physics
JLPT-3 rd level	Japan International Cooperation Agency, Ibaraki, Tsukuba, Japan	1997	Japanese Language
Grundstufe (II) Level	Goete Institute, Schwabich-Hall, Germany	1990	German Language

AWARDS & ACCOMPLISHMENTS

* Junior Research Fellowship, University Grants Commission in 1989
* Junior Research Fellowship (JRF), Max-Planck-Institute for Polymer (MPI-P) Research, Mainz-Germany in 1992-1993
* Council of Scientific and Industrial Research (CSIR), Faculty of Engineering, Insulation Processing Project in 1993-1995 .
* Senior Research Fellowship (SRF), Conductive Polymer Project in 1994-1995 .
* Japan International Cooperation Agency (JICA) Award for Polymer and Chemical Technology Training Courses in 1996
* Japan Science and Technology Corporation (JST) Award of the Science and Technology Agency (STA) in 13th March 1997 .

SCIENTIFIC ACHIEVEMENTS

Number of papers published/Accepted in International journals	13	
Workshop/conference attended	International	8
	Domestic	6
Number of theses supervised	2 (M.Sc)	

Research & Development Experiences

Worked as M.Sc. student in Materials Science Laboratory, Physics Department, Mansoura University, on " A Study of Some Factors Affecting the Thermally Stimulated Currents of Some Polymers" from March 1987-March.1989 .
Worked as Ph.D student in the framework of Egypt-Germany channel system scholarship on " Structure and Electrical Properties of Polypyrrole and Related Composites" from Nov.1989-Nov. 1993 .
Worked as Junior Researcher at MPI-P, Mainz Germany , on the standardization of highly electroconductive and thermally stable conductive polymers from Sept. 1992-Feb. 1993 .
Worked as Project Associate at the Materials Science Laboratory (MSL), for R & D of Biosensors and Conductive Polymers, June 1993- April 1996 .
Worked as Postdoctoral (STA) Fellow at the National Institute of Materials and Chemical Research (NIMC), Molecular Engineering Department, Tsukuba, Japan , on the Fabrication and Characterization of Photoreactive and Electroactive Harmonized Materials using Langmuir-Blodgett Technique from June 1997-June 1999 . Besides, colaporation has been made with the molecular conductor project for the fabrication and structure determination of new quasi-metallic single crystals prepared by electrocrystallization from Oct. 1998-June 1999 .
Worked as R&D continuing project Senior Researcher at (MSL) on the standardization of new staff of organometallic anion -based conducting polymers as contenders for gas (NO _x and NH ₃) sensing applications from Jan. 2000-until present .

INSTRUMENTS UTILIZED

*Transmission Electron Microscop (TEM) (Zeiss EM902 Instrument),
*X-ray diffraction (PW 1820 Philips Powder diffractometer and Computer-controlled Rigaku Rotaflex diffractometer)), X-ray camera for oscillation and weissenberg photographs (Rigaku)
*UV-visible Spectrophotometer (Shimadzu, JASCO)
FTIR Spectrophotometer (1-Nicolet, JASCO 2- Perkin-Elmer Syst.2000/MCT detector)
*Fluorescence Spectrophotometer (JASCO FP-777)
*Gel-Permeation Chromatography (GPC) (Waters); Differential Scanning Calorimeter, Model DSC-7 (Perkin Elmer and Shimadzu)
*Langmuir-Blodgett (LB) Trough models (Lauda and 4 (Joyce-Loebl))
*Thin Film Coating units (Thermal Evaporation, Electron Beam Evaporation and DC Sputtering) MODEL BC-300 (Waters)
*Time of Flight measurement system for study of PhotocARRIER generation and Transport
*Electrochemistry and Cyclovoltametry (HA-501, Hokuto Denko Ltd. equipped with HB-111 function generator)

HIGHLIGHTS ON RESEARCH FIELDS

Fabrication and characterization of photoreactive and electroactive self-organized films using Langmuir-Blodgett (LB) technique.
Preparation of molecular conductors using electrocrystallization method.
Fabrication of organic photovoltaic cells using spin-coating method.
Preparation of conductive polymers and investigation of their gas and bio-sensing fingerprint
Polymer electrets (Piezo and pyro) investigation using TSC and corona charging techniques

TEACHING ACTIVITIES AT PDFSMU

Title	Period
Associate Professor of Physics	1999-Present
Lecturer of physics	1993-1999
Assistant lecturer	1989-1990
Demonstrator	1985-1989

PDFSMU = Physics Department, Faculty of Science, University of Mansoura, Egypt

UNDERGRADUATE AND POSTGRADUATE COURSES

Undergraduate	Postgraduate
Solid State Physics, Semiconductors, Thermodynamics, Heat & Properties of Matter, Laser Physics, Electric Circuits, Electronics, Atomic Spectra, Noncrystalline Solids, Molecular Spectra (Biophysics), Medical Physics	Advanced Materials, Micro- & Opto-electronics, Photophysics, Physics Properties of Liquid Crystals

RECOMMENDATIONS

Prof. Dr. Fusae Nakanishi Tel: +81-298-54-4671 Fax: +81-298-54-4673 Email: nakanishi@home.nimc.go.jp	Director, Molec. Systems Laboratory, Molecular Engineering Department, National Institute of Materials and Chemical Research (NIMC), 1-1 Higashi, Ibaraki, Tsukuba, Japan
Prof. Gerhard Wegner Tel: Code-06131-379-130/131 Fax: Code-06131-379-100	Director, Max-Planck-Institute for Polymer Research, Mainz Germany
Dr. Masagi Mizuno Tel: 81-298-54-4630 (office) Fax: 81-298-54-4709	Senior Researcher, Head International Liaison Office (NIMC), 1-1 Higashi, Ibaraki, Tsukuba, Japan
Prof. Dr. Mostafa D. Migahed Tel: +2-050-2242388 Fax: +2-050-2249700 Email: sinfac@mun.mans.eun.eg	Director, polymer Research Laboratory, Physics Department, Faculty of Science, Mansoura University, 35516, Mansoura, Egypt
Prof. Dr. Ahmed A. Hamza Tel: +2-050-2242388 Fax: +2-050-2246781 Email: sinfac@mun.mans.eun.eg	Emeritus Professor, Physics Department, Faculty of Science, Mansoura University, 35516, Mansoura, Egypt

CONFERENCES ATTENDED

10-15 Sept. 2001 “6th Arab International Conference on Polymer Science and Technology” Ismailia-Sharm El-Sheikh, [Egypt](#).

17-20 April 2001 “6th International Conference on Chemistry and Its Role in Development, ICCRD” Mansoura University, [Egypt](#).

18-23 Mar. 2001 “The XXII Conference on Solid State Science & Workshop on Advanced Materials” UNSCO-Hurgada, [Egypt](#).

05-07 Nov. 2000 “The second International Conference on Basic Sciences and Advanced Technology “ Assuit, [Egypt](#).

22-26 April.2000 Second International Spring School on Current Activities of Materials Science (Tohoku Univ.,Japan-Assuit Univ. [Egypt](#)).

16 - 17 Mar. 1999 `The Second International Symposium on Photoreaction Control and photofunctional Materials`, (PCPM`99), NIMC-Tsukuba, [Japan](#).

30jun-1July 1998 `Korean-Japan Joint Forum on Organic Materials for Electronics and Photonics`, (KJF`98), Hokkaido University, Sapporo, [Japan](#).

09-10 Mar. 1998 `International Symposium On Image Processing Molecular Systems` IPMS`98, NIMC-Tsukuba, [Japan](#).

06-08 April 1998 `3rd Japan-France Joint Forum on Organic Materials for Electronics and Photonics`, (JFJF`3), Tsukuba, [Japan](#).

16-18 Mar. 1998 `The First NIMC international Symposium on Photoreaction and Photofunctional Materials (PCPM`98), Tsukuba, [Japan](#).

28-30 Oct. 1996 `1st Asian Symposium on Organized Molecular Films for Electronics and Photonics` (ASOMF`1), AIST, Tsukuba, [Japan](#).

08-09 Oct. 1996 `Japan-China Seminar on Advanced Engineering Plastics, Polymer Alloys and Composites`, Tokyo University, [Japan](#).

06-08 Sept. 1995 `Physical Aspects of Polymer Science`, 17 biennial Meeting, University of Leeds, [England](#).

12 -15 Apr. 1988 `The XI conference on Solid State Science`, Mansoura University-UNESCO, [Egypt](#).

LIST OF PUBLICATIONS

- [1] **H. R. Hafiz** and **F. Nakanishi**, Photoresponsive liquid crystal display driven by new photochromic azobenzene-based Langmuir–Blodgett films, *Nanotechnology*, 14 (2003) 649-654.
Online: www.iop.org/EJ/article/0957-4484/14/6/316/t30616.pdf
- [2] **Hafiz Rashad hafiz** and **Fusae Nakanishi**, “Standardization of Photoresponsive LB films Fabricated from Simple Azobenzene Derivative”. *International Journal of Polymeric Materials*, 51:955-966 (2002).
- [3] **T. Fahmy**, **H. R. Hafiz** and **M. T. Ahmed**, “Structural and Relaxation Aspects in Azodye-doped ABS Films: TSDC Study”, *International Journal of Polymeric Materials*, 51:875-889 (2002).
- [4] **H. R. Hafiz**, **J. Zhao**, **N. Tanigaki** and **F. Nakanishi**, “A Study on The Photoreactivity and Structure of LB Films of p-Phenylenediacrylic Acid with an Amide Bond”, *Mol. Cryst. Liq. Cryst.*, 327, 111 (1999).
- [5] **H.R. Hafiz**, **K. Tamada** and **F. Nakanishi**, “ Thermodynamic Standardization for Highly Photoreactive LB Films Made From Amide Derivative of p-Phenylenediacrylic Acid”, *Mol. Cryst. Liq. Cryst.* 322, 123 (1998).
- [6] **J. Zhao**, **H.R. Hafiz**, **H Akiyama**, **K. Tamada** and **F. Nakanishi**, “ Kinetics of Photoreaction of p-Phenylenediacrylic Acid Derivative in LB Films: An Infrared Spectroscopic Study”, *Mol. Cryst. Liq. Cryst.* 322, 233 (1998).
- [7] **F. Nakanishi**, **H. R. Hafiz**, **P. Fang**, **N. Feeder** and **J. Nagasawa**, “Photoreactive LB Films Made From p- Phenylenediacrylic Acid Derivatives”, *Mol. Cryst. Liq. Cryst.*, 295, 133-136 (1997).
- [8] **F. Nakanishi**, **J. Nagasawa** **M. Yoshida** and **H. R. Hafiz**,”Photoreactivity and Fluorescence Spectrum of p-Phenylenediacrylic Acid Amide Derivative” *J. Photopolym. Sci. and Technol.*, 10, 2 (1997) 225-226.
- [9] **H. R. Hafiz**, “Aspects on The Percolation and Conduction Behavior in Polypyrrole-Poly(vinyl chloride) Composite”, *Polymer Bulletin* 37 (1996) 647-654..
- [10] **M. D. Migahed**, **H. R. Hafiz**, **A. m. Shaban**, **M. Ishra**, “Evaluation of The Molecular Parameters of ABS and SAN Using TSDC”, *J. Polym. Mater.*, 8 (1991) 329-334.

[11] **M.D. Migahed, A. Shaban, A. El-Khodary, M. Hammam and H. R. Hafiz**, "TSDC Studies on Molecular Relaxation in SAN Films", J. Polymer. Mater. 7 (1990) 131-137.

[12] **M. D. Migahed, A. M. Shaban, A. El-Khodary and H. R. Hafiz**, "TSDC Spectra in Negatively Corona Charged ABS Electrets", Polymer Bulletin 23 (1990) 61-70.

[13] **M. D. Migahed, A. El-Khodary, M. Hammam, A. Shaban, H. R. Hafiz**, "Compensation Effect in Styrene-acrylonitrile Copolymer and Acrylonitrile-butadiene-styrene terpolymer as explored by thermally stimulated depolarization measurement", Journal of Materials Science 25 (1990) 2795-2799.

Papers in press

[1] **H. R. Hafiz**, "New Photosensitive Ultrathin Films Fabricated by Langmuir-Blodgett Technique", Smart Materials and Structures, In Press

Papers to be published

[1] **H. R. Hafiz, M. Mizuno**, "Preparation and Electrical Conduction Investigation of New Molecular Conductors".

[2] **H. R. Hafiz**, "Characterization of New Quasi-metallic Polypyrrole".
I. Conduction Mechanism.