

## **ABDALLA M. ELSAMADICY**

- Home Address: 103 Brockton Drive, Madison, AL 35756
- Business Address: Department of Physics, University of Alabama in Huntsville  
Huntsville, AL 35899
- Birthrate/Place: September 1<sup>st</sup> 1952. Alexandria, Egypt
- Citizenship: USA

### **Education**

- Bachelor of Science, 1976, Alazhar University, Cairo Egypt.
- Master of Science, 1990, the University of Alabama, Tuscaloosa AL
- Doctor of Philosophy, 2002, Alabama A&M University, Normal, AL  
Dissertation: ***Surface Metallization Schemes for Silicon Carbide Ohmic Contact***

### **Professional Employment**

#### **TEACHING**

**2002 – Current: Lecturer and Physics Lab manager, UAH Physics Department:**  
Supervises the operation of all undergraduate physics labs as well as teaching all general Physics labs and Courses.

**1993 - 1996: Full time, Tenure Track Physics/Mathematics Instructor, Bessemer State Technical College, Bessemer, AL.**

Taught the full range of Physics and Mathematics courses. Worked with Division Chair and other faculty to develop, evaluate and review curriculum. Participated in the overall planning of the College. Participated on different committees to assist the administration in their decision making process.

**1990 - 1994: Part-time Mathematics Instructor, Department of Mathematics, The University of Alabama, Tuscaloosa, AL and Shelton State Community College, Tuscaloosa, AL.**

**1983 - 1990: Teaching Assistant in the Department of Physics, University of Alabama, Tuscaloosa AL.**

- SGA Outstanding Faculty Award, College of Science, 2005.

#### **RESEARCH**

**2002 – Present: Department of Physics, the University of Alabama in Huntsville,**  
advised in several research topics involving graduate as well as undergraduate students enrolled in the College of Science.

**1998 - 2002: Center for Irradiation of Materials, Alabama A & M University, Normal, AL.** Conducting a research of different schemes for Silicon Carbide surface modification, to obtain a stable ohmic contact and characterize it. **My Research Proposals** were awarded **NASA- Alabama Space Grant Consortium (ASGC) Fellowship** for the years 1999 and 2000.

**1983 - 1990: Department of Physics, University of Alabama, Tuscaloosa, Alabama.** Conducted a temperature dependent relaxation time measurements for samples of some polymers with microcomputer control for recording, analyzing and graphing data.

**1976 - 1983: The National Research Center, Cairo, Egypt,** Studied the effect of different doses of gamma rays on the hardness, electrical and thermal conductivities of some Polymers, and conducted an I.R. spectroscopic study for the Irradiated samples.

## Selected Publications

- (1) **"FORMATION OF METALLIC NANOCLUSTER IN SiC BY MEV ION IMPLANTATION"**. D. Ila, E. K. Williams, A. Elsamadicy, Center for Irradiation of Materials, Alabama A&M University, Normal, AL. M. A. George, M. A. Ayoub, Dept. of chemistry, University of Alabama in Huntsville, AL. D. J. Larkin, NASA Lewis Research Center, Cleveland, OH; D. B. Poker and D. K. Hensley, Solid State Division, Oak Ridge National Laboratory, Oak Ridge, TN. **This paper was published in Volume 571 of the Materials Research Society, Symposium Proceedings Series.**
- (2) **"Hydrogen Detection at WMRD Using Nuclear Reaction Analysis,"** D.K. Marble, J. D. Demaree, J.K. Hirvonen, R. Zimmerman, D. Ila, A. Elsamadicy, J.L. Price, N. Gardella, E. Swarz, **Book of Abstracts for the Sixth Annual ARL/USMA Technical Symposium, Aberdeen, Maryland, November 4, 1998.**
- (3) **"Gold, Silver and Copper Nanocrystal Formation in SiC by MeV Implantation"**. R. L. Zimmerman, D. Ila, E. K. Williams, B. Gasic, A. Elsamadicy and A. L. Evelyn. **Radiation Effects on Insulators, Jena Germany, 18-21 July 1999.**
- (4) **"Au, Ag and Cu Nanocrystal Formation in SiC by MeV Implantation"**. R. L. Zimmerman, D. Ila, E. K. Williams, B. Gasic, A. Elsamadicy and A. L. Evelyn. **Nuclear Instruments and Methods in Physics Research B, (Accepted for publication. Also reported in Radiation Effects in Insulators 10, Jena, Germany, July 1999).**
- (5) **"Gold, silver and copper nanocrystal formation in SiC by MeV implantation"**, R. L. Zimmerman, D. Ila, E. K. Williams, B. Gasic, A. Elsamadicy, A. L. Evelyn, D. B. Poker, D. K. Hensley and David J. Larkin. **Nucl. Instr. & Meth. in Phys. Res. B166-167, 892-896 (2000).**
- (6) **" Low Temperature Ohmic Contact Formation of Ni2Si on N-type 4H-SiC and 6H-SiC "**, A. M. Elsamadicy, D. Ila, R. Zimmerman, C. Muntele, L. Evelyn, I. Muntele, D. B. Poker, D. K. Hensley, J. K. Hirvonen, J. D. Demaree, M. A. George. **HBCUs/OMUs NASA GRC-sponsored Research Conf. Proc. (2001).**
- (7) **" Low Temperature Ohmic Contact Formation of Ni2Si on N-type 4H-SiC and 6H-SiC "**, A. M. Elsamadicy, D. Ila, R. Zimmerman, C. Muntele, L. Evelyn, I. Muntele, D. B. Poker, D. K. Hensley, J. K. Hirvonen, J. D. Demaree, M. A. George, **Materials Research Society Symposium Proceedings 647 (2001).**
- (8) **"Surface patterning for nanowire growth"** D. Walker<sup>2</sup>, S. Budak<sup>1</sup>, C. Muntele<sup>1</sup>, A. Elsamadicy<sup>2</sup>, R. L. Zimmerman and D. Ila<sup>1\*</sup>, 1. Center for Irradiation of Materials, Department of Physics, AAMU, PO 1447, Normal, AL 35762-1447 USA. 2. Department of Physics, Univ. Alabama at Huntsville, Huntsville, AL 35805 USA. **It has been sent for publication to the Material Research Society, 4 Nov 2006 ID: 310943.**
- (9) **"Characterization of  $W_1C_{x-1}$  electrical contacts on silicon carbide using RBS and AFM/SEM"** A. Pereira da Cunha<sup>1</sup>, T. D. Walker<sup>2</sup>, R. A. Sims<sup>2-3</sup>, B. Chhay<sup>1</sup>, C. I. Muntele<sup>1\*</sup>, I. Muntele<sup>1</sup>, A. Elsamadicy<sup>2</sup>, D. Ila<sup>1</sup>. <sup>1</sup>Center for Irradiation Materials, Alabama A&M University, Normal, AL, 35762. <sup>2</sup>Physics Dept., University of Alabama in Huntsville, Huntsville, AL 35899. <sup>3</sup>Physics Dept., Samford University, Birmingham, AL 35229. **It has been sent for publication to the 19<sup>th</sup> International Conference on the Application of Accelerators in Research and Industry.**
- (10) **"SURFACE PATTERNING FOR NANOWIRE GROWTH."** D. Walker<sup>1</sup>, A. Elsamadicy<sup>1</sup>, S. Budak<sup>2</sup>, C. Muntele<sup>2</sup>, R. L. Zimmerman<sup>2</sup> and D. Ila<sup>2</sup>;  
<sup>1</sup>Dept. of Physics, Univ. Of Alabama at Huntsville, Huntsville, Alabama.  
<sup>2</sup>Center for Irradiation Materials, Alabama A&M University, Normal, Alabama  
**Materials Research Society Symposium Proceedings (2007).**