



SHEHDEH W. JODEH
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Palestine

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EXPERIENCE

- 10/2007 – Present** **Associate Professor. Najah National University**
- 07/2004 – present** **Assist. Prof. An-Najah National University, Nablus, Palestine**
Teaching Chemistry and research for graduate and Undergraduate students
- 04/96 – 07/2004** **Research Scientist, General Motors, Warren, Michigan.**

Investigation of novel metal oxides/hydroxides under high vacuum using Excimer laser.
Study of metal oxides using surface technique in UHV system.
Preparation of thin films of oxides and hydroxides to study vibrational spectroscopy using laser ablation techniques.
Synthesis of novel polymeric materials including electronic and ionic polymers.
Developing new epoxy resins.
- 01/00 – 06/2004** **Part Time Faculty, Schoolcraft College, Livonia, MI**

Teaching Physics and Chemistry
- 01/98 – 06/98** **Assistant Professor, An-Najah University, Nablus- Palestine.**

Teaching chemistry for Graduate and Undergraduate students
- 10/91 – 10/92** **Research Associate (Postdoctoral), Wayne State University**
Detroit, Michigan.

Investigation of gases in chemical vapor deposition (CVD) reactor by laser-excited fluorescence.
Teaching physical chemistry courses.

TRAINING

FT-IR, Magna 560., Inductively Coupled Plasma (ICP), UHV High Resolution GC/MS Ultima, Ion Chromatography, GC-MS, GC, AA. Purge and Trap, Spark Ablation, Excimer and Dye LASERS, HPLC, MDSC, TGA, DMA, XPS, AES, SEMS.

EDUCATION

Ph.D. (Physical Chemistry) 1991
Wayne State University, Detroit, Michigan, U.S.A.

Laser Induced Fluorescence of Ablated Materials from Solids.

M.Sc. (Physical Chemistry), 1985
Sam Houston State University, Huntsville, Texas, U.S.A

The Hydrogen Evolution Reaction in Liquid Ammonia Dilute Ammonium Nitrate Solutions.

B.Sc. (General Chemistry), 1983
Yarmouk University, Irbid, Jordan

PUBLICATION

Shehdeh Jodeh” Physical vapor deposition of Palladium on Stainless Steel for electrical applications for automotive. Jordan Journal of Chemistry, 2008, 2, 187..

Shehdeh Jodeh, " Effects of Ion Chemistry and Mass on the Electrical Properties of Ion Implanted Pyrolyzed Polyacrylonitrile" Accepted, Journal of Analytical and applied Pyrolysis, 2008.

Shehdeh Jodeh, " Chemical Structural characterization of pyrolysed and subsequently ion-implanted poly (acrylonitrile). In Press, Journal of Analytical and Applied Pyrolysis, 2008.

Shehdeh Jodeh, “ Characteristics of sorption and biodegradation of Naphthalene in soil using non-ionic surfactants, Proceeding of International congress of Chemistry and Environment, Nov 18-20, 2007, Kuwait.

Shehdeh Jodeh, Sorption characteristics of a non-ionic surfactant in soil contaminated with decane. Land contamination and Reclamation, 16(1)2008, 35-44

Shehdeh Jodeh, Characteristics of Removal of Hydrophobic Organic Carbons from Soil Using Nonionic Surfactants. **Submitted, environmental pollution**

Shehdeh Jodeh “ The Study of the effects of Ion Chemical Activity on Conductivity of Poly(Dimethylsilylene –CO-Methylphynylsilylene” J. Active and Passive Electronic 12, 24-48, 2006.

Musameh Sharif and Shehdeh Jodeh “Tribological Behavior of Chromium Nitride Coating by Unbalanced Magnetron Sputtering.,J. Active and Passive Electronic Devices,3, 17-25 2007”.

Musameh Sharif and Shehdeh Jodeh “Characterization Analysis of Chromium Nitride Reactively Sputtered Deposited Coating on Alluminum Alloys. **J. Active and passive Electronics. Vol 2, 1-10**”

Jerry C. Huang, and Shehdeh Jodeh “Platinum/ Ruthenium Catalysis for Reformate Oxidation”. GMR, PC-795 (2000).

Jerry C. Huang, and Shehdeh Jodeh “Evaluation of Electrode Structure for PEM Cells using Half-Cell Assembly”. GMR. PC 793(2000).

Rafil Basheer and Shehdeh Jodeh “ Effects of Ion Chemistry and Mass on the Electrical Properties of Ion Implanted Pyrolyzed Polyacrylonitrile” GM R&D P.O- 967, May 2002.

Shareef Musameh and Shehdeh Jodeh “ A Rheological Equation of State for the Steady-Shear Viscosity Properties of Multi-Component Polymer Liquids”An-Najah Univ J.Res. Vol. 14(2000)

Shareef Musameh and Shehdeh Jodeh "The effects of shear rate and capillary length-to-diameter ratio on isothermal extrudate swell of polymer melts" An-Najah Univ J.Res. Vol. 16(1)(2002)

Ismat A. Abu Isa and Shehdeh Jodeh "Thermal Properties of Automotive Polymers" III- Thermal Characteristics and Flammability of Fire Retardant Polymers. Research Publication GMR-9027 (2000).

Ismat A. Abu Isa and Shehdeh Jodeh "Thermal Properties of Automotive Polymers" IV- Thermal Gravimetric Analysis and Differential Scanning Calorimetry of Selected Parts from a Chevrolet Camaro Research Publication GMR-9029 (2000).

Ismat A. Abu Isa and Shehdeh Jodeh "Thermal Properties of Automotive Polymers" V- Flammability Test for Fire Retardant Polymers. Research Publication GMR-9045 (2000).

Shehdeh Jodeh and Gene P. Reck "Dynamic of Laser Sputtering of the Hydroxyl Radical from Ca (OH)₂, BaO₂, and Y₂O₃, *J. Phys. Chem.*, **97** (45) 1994.

Shehdeh Jodeh and Daniel Fried "Internal State Populations and the Time of Flight of Ground state Species Ejected after the 193 nm Excimer Laser ablated of CuO and BaO" *J. Appl. Phys.* 75(1)(1994)

PATENT

Environmentally Friendly and inexpensive dielectric coolant for fuel cell stack. Shehdeh jodeh, U.S 2004. 0110050A1 June 10 2004.

CONFERENCES AND PRESENTATIONS

Shehdeh Jodeh "Physical vapor deposition of Palladium on Stainless Steel for electrical applications for automotive. The Fifth International Jordanian chemistry conference Irbid, Jordan, June 17 -21, 2008.

Shehdeh Jodeh "Effects of Ion Chemistry and Mass on the electrical Properties of Ion implanted Pyrolyzed Polyacrylonitrile.

18th International Symposium on analytical and applied Pyrolysis.
18-23 May, 2008, Canary Island, Spain.

Shehdeh Jodeh "Effects of Ion Chemistry and Mass on the
electrical Properties of Ion implanted Pyrolyzed Polyacrylonitrile.
Palestinian Third Physics Conference.
21-23 April, 2008, Alquds University.

Shehdeh Jodeh "Physical vapor deposition of Palladium on
Stainless Steel for electrical applications for automotive. The
Fourth Chemistry Conference Alquds University, Abu Dees,
Jerusalem April 14 -15, 2008.

Shehdeh Jodeh "Sorption behavior of a non-ionic surfactant and
with its capacity of desorbing naphthalene from soil. 3rd
conference of the international congress of chemistry and
environment ICCE07 held in Kuwait, 18-20 Nov 2007.

Shehdeh Jodeh " Physical vapor Deposition techniques for
ceramics application in automotive industries" Petra International
Chemistry Conference, Petra, Jordan, June 24-Jun 28, 2007.

Shehdeh Jodeh " Physical vapor deposition of Ag/Ni composites in
electrical applications for automotive. Najah national University,
Nablus May 7-May9, 2007.

Shehdeh Jodeh " Silver Nitrate as a deposit for electrical contacts,
ASTF, Damascus Syria, Dec 11- 15, 2006

Shehdeh Jodeh " Physiscal Vapor Deposition of Ceramic/Metal
Composite for Electrical Contacts" the fourth international
Jordanian conference of chemistry, Irbid-Jordan, Sep 19-21,2005

Shehdeh Jodeh " Flame Retardant Intumescent Materials Using
Magnesium Hydroxide" the 8th International Polymers Conference
Tripoli, Libya, November 21 – 25, 2005.

Shehdeh Jodeh and rafil Basheer " Dependence of Transition
Temperatures and Enthalpies of Fusion and Crystallization on
Composition in Polyaniline/Polyamide Blends. Presented before
the 213th American Chemical Society International Conference,
San Francisco, California, March 12-16, 2000.

Rafil Basheer and Shehdeh Jodeh “Structural Transformations in Ion-Implanted, Pyrolyzed Polyacrylonitrile. Presented before the 8th International Polymer Characterization Conference, Denton, Texas, Jan 1999.

Ismat A. Abu Isa and Shehdeh Jodeh “Thermal Properties and Flammability of Fire Retardant Polymers”. Presented before the 8th International Polymer Characterization Conference, Denton, Texas, Jan 1999

Courses I Taught

Undergraduate Courses

General Chemistry

Environmental Chemistry

Physical Chemistry

Thermodynamics

Analytical Chemistry

Graduate Courses

Quantum Chemistry

Molecular Spectroscopy

Chemical Kinetics

Thermodynamics

Special Topics in Physical Chemistry(Corrosion, Physical Vapor Deposition, Laser Spectroscopy)