

List of PUBLICATIONS

1. "Temperature Dependence Photoelectron Spectroscopy and Cyclic Voltammetry of Supported Pd-Cu Bimetallics" Shuzhen Hu, Louis Scudiero, Su Ha (to be submitted to *ACS Applied Materials and Interfaces*, 2012).
2. "Unexpected Surface Electronic Structure and Enhanced Electrochemical Activity of Pd-Cu Bimetallic Catalyst towards Formic Acid Electro-Oxidation", Shuzhen Hu, Louis Scudiero, Su Ha (submitted to *Electrochimica Acta*, 2012).
3. "Photoemission Study of P3HT, PCBM and Blend P3HT:PCBM Films Deposited on Si in the Dark and under Laser Irradiation", Louis Scudiero Yang Shen and Mool C. Gupta (in preparation).
4. "Characterization of Atmospheric Pressure Plasma Polymerized Acetylene Coatings " William Lekobou, Louis Scudiero, Patrick Pedrow, Karl Englund, Marie-Pierre Laborie (submitted to *Plasma Processes and Polymer*, 2012)
5. "Characterization of a New Donor-Acceptor-Donor copolymer for Solar Cell Applications", Kerner Ross, Yilin Li and Louis Scudiero (*Synthetic Metals*, 2012, 10.1016/j.synthmet.2012.04.010)
6. "Fluorescence and Theoretical Study on the Intermolecular Charge Transfer of Benzothiadiazole-based Fluorophores", Yilin Li, Louis Scudiero, Tianhui Ren, Wenji Dong, *J. Photochemistry and Photobiology A: Chemistry*, 231 (2012) 51-59
7. "Temperature dependence of HOMO-LUMO levels and open circuit voltage for P3HT:PCBM organic solar cells", Yang Shen, Louis Scudiero and Mool C. Gupta (under review *Journal of Photovoltaics*, 2012)
8. "Sulfur Poisoning of Molybdenum Dioxide during the Partial Oxidation of a Jet-A Fuel Surrogate", Oscar Marin-Flores, Timothy Turba, Caleb Ellefson, Joe Breit, Louis Scudiero, M. Grant Norton and Su Ha, *Appl. Catalysis B*, 105 (2011) 61-68
9. "Infrared Absorption of Adsorbates on Copper Nanoparticles Synthesis by Galvanic Displacement" Ayuba Fasasi, Peter R. Griffiths, Louis Scudiero, *Applied Spectroscopy*, 65, (2011) 750-755.
10. Photoelectron Spectroscopy and Atomic Force Microscopy Study of 1,2-dicyanomethanofullerene $C_{60}(CN)_2$ Thin Film for Photovoltaic Applications" Vaishali Rao Koppolu, Mool C. Gupta, L. Scudiero, *Solar Energy Materials and Solar cells*, 95 (2011) 1111-1118
11. "Characterization of a Controlled Electroless Deposition of Copper Thin Film on Germanium and Silicon Surfaces", Louis Scudiero, Ayuba Fasasi, and P. Griffiths *Applied Surface Science* 257 (2011) 4422-4427.
12. "Nanoparticle Molybdenum Dioxide: A New Alternative Catalytic Material for Hydrogen Production via Partial Oxidation of Jet-A Fuels" Oscar Marin-Flores, Timothy Turba, Caleb Ellefson, Louis Scudiero, Joe Breit, M. Grant Norton and Su Ha, *J. Nanoelectron. Optoelectron.* 5, (2010) 1-5.
13. "Scanning Electron and Atomic Force Microscopy, and Raman and X-ray Photoelectron Spectroscopy Characterization of Near-Isogenic Soft and Hard Wheat Kernels and Corresponding Flours", L. Scudiero and C. Morris *J. Cereal. Sci.* 52 (2010) 136-142.
14. "Thermal Stability and Strength of Mo/Pt Multilayered Films." A. Bellou, L. Scudiero and D. F. Bahr *J. Mater. Sci.* 45, (2010) 354.

15. "Correlating structure and mechanical behavior of passive films on austenitic stainless steels" A. Alamr, R.S. Yasser, D. Bahr, L. Scudiero and M.G. Norton *Thin Solid Films*, 518, (2010) 2757-2763
16. "Photoemission Spectroscopy and Atomic Force Microscopy Study of Vapor Co-Deposited Silver/Poly(3-hexylthiophene) Composites", L. Scudiero, Haoyan Wei, Hergen Eilers *ACS Applied Materials and Interfaces* 1, (2009) 2721-2728.
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18. "X-ray Diffraction and Photoelectron Spectroscopy Studies of MoO₂ Powder Used as Oxidizing Agent for Fuel Reforming", Oscar Marin-Flores, L. Scudiero, Su Ha, *Surf. Sci.* 603 (2009) 2327-2332.
19. "Controlled Manipulation of self-organized Ni (II)-Octaethylporphyrin Molecules Deposited from Solution on HOPG with a Scanning Tunneling Microscope" L. Scudiero and K.W. Hipps *J. Phys. Chem. C* (2007), 111, 17516- 17520.
20. "A Scanning Tunneling Microscopy Study of Self-Assembled Nickel (II) Octaethylporphyrin Deposited from Solution on HOPG" Ayowale Ogunrinde, K.W. Hipps and L. Scudiero *Langmuir* 22, 5697-5701 (2006).
21. "Electron Tunneling, a Quantum Probe for the Quantum World of Nanotechnology" K.W. Hipps and L. Scudiero. *J. Chem. Edu.* (2005), 84, 5, 704-711.
22. "Scanning Tunneling Microscopy Study of the Structure and Orbital Mediated Tunneling Spectra of Cobalt(II) Phthalocyanine and Cobalt(II) Tetraphenylporphyrin on Au (111): Mixed Composition Films" Dan E. Barlow, L. Scudiero, and K. W. Hipps. *Langmuir* 20, 4413-21 (2004). *{Cover art for this Journal issue taken from this article}*.
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24. "A Self-organized 2-Dimensional Bifunctional Structure" L Scudiero, K.W. Hipps, Dan E. Barlow, and Manning P. Cooke. *J. Phys. Chem. B* (2003), 107, 2903-2909.
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26. "Scanning Tunneling Microscopy, Orbital Mediated Tunneling Spectroscopy, and Ultraviolet Photoelectron Spectroscopy of Nickel(II) Octaethylporphyrins Deposited from vapor", L. Scudiero, Dan E. Barlow and K. W. Hipps, *J. Phys. Chem. B* (2002), 106, *{Cover art for this Journal issue taken from this article}*.
27. "Scanning Tunneling Microscopy, Orbital Mediated Tunneling Spectroscopy, and Ultraviolet Photoelectron Spectroscopy of Metal(II) Tetraphenylporphyrins Deposited from vapor", L. Scudiero, Dan E. Barlow, Ursula Mazur and K. W. Hipps, *J. Am. Chem. Soc.* (2001), 123, 4073.
28. "Physical Properties and Metal Ion Specific Scanning Tunneling Microscopy Images of Metal (II) Tetraphenylporphyrins Deposited from vapor onto Gold (111)", L. Scudiero, Dan E. Barlow and K. W. Hipps, *J. Phys. Chem. B*, 104, (2000), 11899 *{Cover art for this Journal issue taken from this article}*.

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35. "Electrical Currents Produced by the Peel of Pressure Sensitive Adhesive Tape: Role of Electrostatic Forces in Adhesion," L. Scudiero, S. C. Langford and J. T. Dickinson, *Proc. ICAC*T, Amsterdam, October (1995); VSP: Zeist, The Netherlands, 1997.
36. "Evidence for Chaos during Peel of Pressure Sensitive Adhesive Tape," L. Scudiero, S. C. Langford and J. T. Dickinson, *Proc. ICAC*T, Amsterdam, October 1995; VSP: Zeist, The Netherlands, 1997.
37. "Spatial and Temporal Probes of Fracture, Wear, Deformation, "J. T. Dickinson, S.C. Langford, Sumio Nakahara, L. Scudiero, K. W. Hipps, Myoung-Won Kim, and Nam-Seok Park, Fratography of Glass and Ceramics III, Varner, J.R., Frechette, V. D. and Quinn, G.D. Ed *American Ceramics Society*, Westerville, OH, 1996; Vol. 64 pp193-256.
38. "Electrical Transients Generated by Peel of a Pressure Sensitive Adhesive from a Copper Substrate. Part II. Analysis of Fluctuations," L. Scudiero, J. T. Dickinson, L. C. Jensen, and S. C. Langford, *J. Adhesion Sci. Technol.* 9, 27-45 (1995).
39. "Fracto-emission and Electrical Transients due to Interfacial Failure," J. T. Dickinson, L. C. Jensen, Sunkio Lee, L. Scudiero , and S. C. Langford, *J. Adhesion Sci. Technol.* 8, 1285-1309 (1994).