

List of PUBLICATIONS

1. "Pd-based Core@Shell Catalysts for Formic Acid Electrochemical Oxidation" Shuzhen Hu, Louis Scudiero, Su Ha (in preparation)
2. "Pd-based Bimetallic and Trimetallic Catalysts for Direct Formic Acid Fuel Cells", Shuzhen Hu, Jennifer Noborikawa, John Haan, Louis Scudiero, Su Ha ***Applied Catalysis B: Environmental*** 180 (2015) 758-765 - IF: 7.435
3. "Temperature Dependent Absolute Energy Levels of Methylammonium Lead Iodide Perovskite", Benjamin J. Foley, Daniel L. Marlowe, Louis Scudiero, Joshua J. Choi and Mool C. Gupta ***Appl. Phys. Lett.*** 106 243904 (2015)-IF:3.515
4. "Nickel-based anode with microstructured molybdenum dioxide internal reformer for liquid hydrocarbon-fueled solid oxide fuel cells" Byeong Wan Kwon, Shuzhen Hu, Qian He, Oscar Marin-Flores, Chang Hoon Oh, Sung Pil Yoon, Jinsoo Kim, Joe Breit, Louis Scudiero, M. Grant Norton, Su Ha ***Applied Catalysis B: Environmental*** 179 (2015) 439-444 -- IF: 7.435
5. "Kinetics of Hydrogen Reduction of Titanium-Doped Molybdenum Dioxide" Qian He, Oscar Marin-Flores, Shuzhen Hu, Louis Scudiero, Su Ha, M. Grant Norton, ***Scripta Materialia*** 100, (2015) pp55-58 —IF: 2.968
6. "Increased Electrochemical-Oxidation Rate of Alcohols in Alkaline Media on Palladium Surfaces Electrochemically Modified by Antimony, Lead, and Tin" Amissi Sadiki, Paul Vo, Shuzhen Hu, Thomas S. Copenhaver, Louis Scudiero, Su Ha, John L. Haan* ***Electrochimica Acta***, 139 (2014) pp 302-307—IF: 5.96
7. "High performance molybdenum dioxide-based anode for dodecane-fueled SOFCs with a maximum power density of 2 W cm⁻² at 750 °C" Byeong Wan Kwon, Shuzhen Hu, Oscar Marin-Flores, M. Grant Norton, Jinsoo Kim, Louis Scudiero, Joe Breit and Su Ha, ***Energy Technology***, 2014, Vol 2, Iss 5, p. 417 {Cover picture taken from this article} —IF:
8. "Effect of Titanium Doping on the Structure and Reducibility of Nanoparticle Molybdenum Dioxide", Qian He, Oscar Marin-Flores, Shuzhen Hu, Louis Scudiero, Su Ha, and M. Grant Norton ***Journal of Nanoparticle Research***, (2014) 16:2385 pp 1-12—IF 2.278
9. "Palladium-Copper Electrocatalyst for Promotion of Oxidation of Formate, Ethanol, and 2 Propanol in Alkaline Media", Jennifer Noborikawa, Julie Lau, Jennine Ta, Shuzhen Hu, Louis Scudiero, Shahab Derekhshan, Su Ha, John L. Haan ***Electrochimica Acta***, 137 (2014) 654-660 —IF: 5.96
10. "Characterization of Atmospheric Pressure Plasma Polymerized Acetylene Coatings " William Lekobou, Louis Scudiero, Patrick Pedrow, Karl Englund, Marie-Pierre Laborie (under review ***IEEE Transactions on Plasma Science***, 2013) —IF: 1.17
11. "Effect of irradiation on P3HT Films Deposited on Si studied by photoelectron spectroscopy", Louis Scudiero Yang Shen and Mool C. Gupta, ***Appl. Surf. Sci.***, 292 (2014) 100-106—IF 2.538
12. "Electronic Effect of Pd-Transition Metal Bimetallic Surfaces on Formic Acid Oxidation" Shuzhen Hu, Louis Scudiero, Su Ha, ***Electrochemistry Communications*** 38C (2014), pp. 107-109 --IF : 4.287
13. "Pd-based Bimetallic Catalysts for Direct Formic Acid Fuel Cells", Shuzhen Hu, Haijun Gao, Sheng Dai, Louis Scudiero, Su Ha, ***ECS Transactions*** 58(1) (2013) 1015-1022
14. "Temperature Dependence Photoelectron Spectroscopy and Cyclic Voltammetry of Supported Pd-Cu Bimetallics" Shuzhen Hu, Louis Scudiero, Su Ha, ***Electrochimica Acta***, 105 (2013) 362-370. —IF: 5.96

- 15.** “Surface Electronic Structure and Enhanced Electrochemical Activity of Pd-Cu Bimetallic Catalyst towards Formic Acid Electro-Oxidation”, Shuzhen Hu, Louis Scudiero, Su Ha, *Electrochimica Acta*, 83, (2012) 354-358.—IF: 5.96
- 16.** “Characterization of a New Donor-Acceptor-Donor copolymer for Solar Cell Applications”, Kerner Ross*, Yilin Li and Louis Scudiero, *Synthetic Metals*, 162 (2012), 1198-1203.—IF: 2.222
- 17.** “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.—IF: 2.421
- 18.** “Temperature dependence of HOMO-LUMO levels and open circuit voltage for P3HT:PCBM organic solar cells”, Yang Shen, Louis Scudiero and Mool C. Gupta *IEEE Journal of Photovoltaics*, 99 (2012) 512-518.—IF: 1.88
- 19.** “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.—IF: 7.435
- 20.** “Infrared Absorption of Adsorbates on Copper Nanoparticles Synthesis by Galvanic Displacement” Ayuba Fasasi, Peter R. Griffiths, Louis Scudiero, *Applied Spectroscopy*, 65, (2011) 750-755.—IF: 1.94
- 21.** Photoelectron Spectroscopy and Atomic Force Microscopy Study of 1,2-dicyanomethanofullerene C₆₀(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.—IF: 5.030
- 22.** “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.—IF: 2.538
- 23.** “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. Nanolectron. Optoelectron.* 5, (2010) 1-5.—IF: 0.48
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- 25.** “Thermal Stability and Strength of Mo/Pt Multilayered Films.” A. Bellou, L. Scudiero and D. F. Bahr *J. Mater. Sci.* 45, (2010) 354.—IF: 2.015
- 26.** “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.—IF: 1.867
- 27.** “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.—IF: 5.900
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- 30.** "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.—*IF:* 4.835
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- 32.** "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.—*IF:* 1.001
- 33.** "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}.—*IF:* 4.384
- 34.** "Scanning Tunneling Microscopy of 1, 2, and 3 Layers of Electroactive Compounds" Dan Barlow, Louis Scudiero, and K.W. Hipps, *Ultramicroscopy*, 97 (2003), 47-53.—*IF:* 2.47
- 35.** "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.—*IF:* 3.377
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- 39.** "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}.—*IF:* 3.377
- 40.** "Photoelectron emission studies of cleaved and excimer laser irradiated single-crystal surfaces of NaNO₃ and NaNO₂", C. Bandis, L. Scudiero, S. C. Langford and J. T. Dickinson, *Surface Science* 442 (1999) 413-419.—*IF:* 1.870
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- 42.** "Scanning Force Microscopy Observations of Corrosive Wear on Single Crystal Brushite (CaHPO₄.2H₂O) in Aqueous Solution", L. Scudiero, S. C. Langford and J. T. Dickinson. *Tribology Letters* 6 (1999) 41-55.—*IF:* 2.15
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- 44.** "Dynamical Probe of Tribological Processes at Metal/Polymer Interfaces: Transient Current Generation", J. T. Dickinson, L. Scudiero and S. C. Langford. Structure and Properties of Glassy Polymers, *ACS Symposium Series* 710 (1997)-Book Chap.19.

- 45.** "Dynamic Tribological Probes: Particle Emission and Transient Electrical Measurements", J.T. Dickinson, L. Scudiero, Kouichi Yasuda, Myoung-Won Kim and S. C. Langford. *Tribology Letters* (1997), 3. 53-67.—IF: 1.74
- 46.** "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. ICACT*, Amsterdam, October (1995); VSP: Zeist, The Netherlands, 1997.
- 47.** "Evidence for Chaos during Peel of Pressure Sensitive Adhesive Tape," L. Scudiero, S. C. Langford and J. T. Dickinson, *Proc. ICACT*, Amsterdam, October 1995; VSP: Zeist, The Netherlands, 1997.
- 48.** "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.
- 49.** "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) .—IF: 0.90
- 50.** "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) .—IF: 0.90

Conference Paper

1. Effect of transition metals (M) in M@Pd core@shell Nanoparticles for Direct Formic Acid Fuel Cells. Shuzhen Hu, Louis Scudiero, Su Ha. *14 AICHE Annual Meeting 2014*
2. Pd-based Bimetallic Catalysts for Direct Formic Acid Fuel Cells. Shuzhen Hu, Haijun Gao, Sheng Dai, Louis Scudiero, Su Ha. *224th ECS Meeting 2013*