

2015

1. M.R. Linford gave an invited talk (was the first speaker) at Surface Engineering based Convergence Science & Technology (SECST2015), which was held August 25-26, 2015, in the 49th Korean Vacuum Society (KVS) Summer Conference at the Changwon Convention Center (Convention Hall III), Changwon, Korea. The title of the talk was: "Development of New Surfaces and Materials for Separation Science". The author on this presentation was Matthew R. Linford.
2. M.R. Linford gave a department seminar in the Department of Chemistry at the University of Tasmania, Hobart, Australia on July 15, 2015. "High Capacity SPME Fibers Created by Sputtering, and Improved Data Analysis Tools for Depth Profiling." The author on this presentation was Matthew R. Linford.
3. M.R. Linford gave an invited talk at the '1st International Conference on Applied Surface Science (ICASS)' in Shanghai, China. This conference was organized by Elsevier and held 27 – 30 July, 2015. The talk was entitled: "High Capacity Solid Phase Microextraction (SPME) Fibers Created by Sputtering". The author on this presentation was Matthew R. Linford.
4. M.R. Linford spoke at the American Vacuum Society (AVS) meeting in San Jose, CA. Oct. 18 – 23, 2015 on "Development of Nanoporous Solid Phase Microextraction (SPME) Fibers by Sputtering". Authors on this presentation were Matthew Linford, C.V. Cushman (graduate student), B. Singh (graduate student), and A. Diwan (graduate student).
5. Cody Cushman (graduate student) spoke at the American Vacuum Society (AVS) meeting in San Jose, CA. Oct. 18 – 23, 2015 on "Quantitative Analysis of Advanced Commercial Glasses for Display Technologies". Authors on this presentation were Cody Cushman (graduate student), N.J. SMITH (collaborator), T. GREHL (collaborator), P. BRUENER (collaborator), and M.R. LINFORD.
6. Kevin Laughlin (graduate student) spoke at the American Vacuum Society (AVS) meeting in San Jose, CA. Oct. 18 – 23, 2015 on "Thin Film Carbon Nanofuses for Permanent Data Storage". Authors on this presentation were KEVIN LAUGHLIN (graduate student), S. JAMIESON (undergraduate student), H. WANG (graduate student), J. BAGLEY (undergraduate student), T. PEARSON (graduate student), R.C. DAVIS (BYU professor), M.R. LINFORD, B.M. LUNT (BYU professor).
7. Anubhav Diwan (graduate student) spoke at Pittcon 2015 in New Orleans, LA, Mar. 8, 2015 on "Stability Testing of Novel SPME Coating Prepared via Physical Vapor Deposition". Authors on this presentation were Anubhav Diwan (graduate student), Bhupinder Singh (graduate student), and Matthew R. Linford.
8. Bhupinder Singh (graduate student) spoke at Pittcon 2015 in New Orleans, LA, Mar. 8, 2015 on "Development of Nanoporous Solid Phase Microextraction (SPME) Fibers by Sputtering". Authors on this presentation were Bhupinder Singh (graduate student), Anubhav Diwan (graduate student), and Matthew R. Linford.

9. Matthew R. Linford spoke at Pittcon 2015 in New Orleans, LA, Mar. 8, 2015 on "Analysis of New Materials for Chromatography and Data Storage via Multiple Surface/Material Analytical Techniques". The author on this presentation was Matthew R. Linford.
10. Cody V. Cushman (graduate student) spoke at Pittcon 2015 in New Orleans, LA, Mar. 8, 2015 on "Atomic Layer Deposition of Aluminum-Free Silica onto Patterned Carbon Nanotube Forests in the Preparation of Microfabricated Thin-Layer Chromatography Plates". Authors on this presentation were Cody V. Cushman (graduate student), Andrew E. Dadson (collaborator), David S. Jensen (collaborator), Matthew R. Linford, Supriya S. Kanyal (graduate student).
11. Matthew R. Linford gave an "Afternoon Rapid Fire Presentation" at nanoUtah 2015 (Oct. 13, 2015 at the University of Utah, Salt Lake City, UT) on "ToF-SIMS".
12. Matthew R. Linford gave a department seminar at Weber St. (Odgen, UT) on Sept. 17, 2015 on "New Materials for Optical Data Storage *and* High Capacity SPME Fibers Created by Sputtering".
13. Matthew R. Linford gave a department seminar at Boise St. (Boise, ID) on Sept. 25, 2015 on "New Materials for Optical Data Storage *and* High Capacity SPME Fibers Created by Sputtering".

2014

The following students spoke at our Spring Research Conference: Jacob Bagley, Cody Cushman, David Hung, Hao Wang, Bhupinder Singh, Anubhav Diwan

14. 28th Student Research Conference of the The College of Physical and Mathematical Sciences at BYU, Mar. 15, 2014. Oral presentation given by Jacob Bagley. 'Sputtering Carbon Fuses for Long-Term Digital Data Storage'. Faculty advisor: Matthew R. Linford.
15. 28th Student Research Conference of the The College of Physical and Mathematical Sciences at BYU, Mar. 15, 2014. Oral presentation given by Anubhav Diwan. 'Development of Porous SPME Fibers via Oblique Angle Deposition'. Faculty advisor: Matthew R. Linford.
16. 28th Student Research Conference of the The College of Physical and Mathematical Sciences at BYU, Mar. 15, 2014. Oral presentation given by Hao Wang. 'Permanent Information Storage Devices? A Carbon/Ternary Alloy/Carbon/Mylar Optical Tape and a Carbon Fuse Solid State Drive'. Faculty advisor: Matthew R. Linford.
17. 28th Student Research Conference of the The College of Physical and Mathematical Sciences at BYU, Mar. 15, 2014. Oral presentation given by Bhupinder Singh. 'Multi-Instrumental Characterization of Nanodiamonds used for Preparing Core-Shell Particles for Liquid Chromatography'. Faculty advisor: Matthew R. Linford.
18. 28th Student Research Conference of the The College of Physical and Mathematical Sciences at BYU, Mar. 15, 2014. Oral presentation given by Chuan-Hsi Hung. Coauthors: Tom Kazarian, Brett Paull, Pavel Nesterenko, Matthew Linford. 'Evaluated the Performance of the Reversed-Phase, and Ion-Exchange Modes of the Flare C18/Amino Polymer/Nanodiamond Mixed-Mode Column using LC-MS at Different pHs'.

19. Pittcon 2014, Chicago, Illinois, Mar. 2 – 6. Oral presentation given by Matthew R. Linford as part of a symposium organized by Linford. The symposium was entitled: “Advanced Surface and Materials Analysis by XPS, Spectroscopic Ellipsometry, Nano- and ToF-SIMS, RBS, and Helium Ion Microscopy – The Power of These Techniques Individually and Combined”. The title of Linford’s talk was: “The Blind Men and the Elephant as Metaphor for the Multi-Technique Analysis of Surfaces and Materials”. Authors: Matthew R. Linford.
20. Pittcon 2014, Chicago, Illinois, Mar. 2 – 6. Oral presentation given by Bhupinder Singh. “Improving the Performance of Nanodiamond-Containing Core-Shell Particles via Extensive Characterization of the Nanodiamonds”. Bhupinder Singh, David S. Jensen, Andrew J. Miles, Michael A. Vail, Andrew E. Dadson, Matthew R. Linford.

2013

21. 40th International Symposium on High Performance Liquid Phase Separations and Related Techniques, 18th – 21st Nov. 2013, The Hotel Grand Chancellor, Hobart, Tasmania, Australia. Poster presented by Kazarian entitled: ‘Liquid chromatography characterisation of structurally similar core shell stationary phases based on layer-by-layer nanodiamond/polyamine architecture’. Authors: Tom Kazarian, Matthew Linford, Pavel Nesterenko, Brett Paull.
22. AVS 60th International Symposium & Exhibition, Oct. 27 – Nov. 1, 2013, Long Beach, CA. Oral presentation by Nitesh Madaan entitled: ‘The First Report of MetA-SIMS with Bismuth Over Layers’. Authors: M.R. Linford, N. Madaan.
23. AVS 60th International Symposium & Exhibition, Oct. 27 – Nov. 1, 2013, Long Beach, CA. Oral presentation by M.R. Linford entitled: ‘Spectroscopic Ellipsometry of Thin Films for Archival Optical Data Storage and for Microfabricated Thin Layer Chromatography Plates’. Authors: M.R. Linford, A. Diwan, S. Kanyal, H. Wang, N. Madaan, A. Dadson, R.C. Davis, B. Lunt, N. Podraza.
24. AVS 60th International Symposium & Exhibition, Oct. 27 – Nov. 1, 2013, Long Beach, CA. Oral presentation by Supriya Kanyal entitled: ‘Characterization of the Thin Films in the Microfabrication of Carbon-Nanotube Templated Thin-Layer Chromatography Plates’. Authors: S. Kanyal, A. Diwan, D.S. Jensen, A. Dadson, M. Vail, M.R. Linford.
25. AVS 60th International Symposium & Exhibition, Oct. 27 – Nov. 1, 2013, Long Beach, CA. Oral presentation by Hao Wang entitled: ‘A Carbon/Ternary Alloy/Carbon Optical Stack on Mylar as an Optical Data Storage Medium to Potentially Replace Magnetic Tape’. H. Wang, R. Gates, B. Lunt, M. Asplund, S. Vaithiyalingam, R.C. Davis, M.R. Linford.
26. nanoUtah 2013, Oct. 18, 2013, Salt Lake City, UT. ‘The blind men and the elephant as a metaphor for surface and materials characterization.’ Invited, oral presentation by M.R. Linford. Author: M.R. Linford.
27. nanoUtah 2013, Oct. 18, 2013, Salt Lake City, UT. ‘Improving the performance of nanodiamond-containing core-shell particles via extensive characterization of the nanodiamonds’ Oral presentation by Bhupinder Singh. Authors: Bhupinder Singh, Matthew R. Linford, David S. Jensen, Andrew J. Miles, Michael A. Vail, Andrew E. Dadson.

28. nanoUtah 2013, Oct. 18, 2013, Salt Lake City, UT. 'Characterization of the carbonized poly(divinylbenzene) microspheres in the diamond analytics "flare" core-shell C18/amino polymer/nanodiamond mixed-mode column'. Poster presentation by Chuan-Hsi Hung. Authors: Chuan-Hsi Hung, Bhupinder Singh, Anubhav Diwan, Matthew R. Linford, Andrew J. Miles, David S. Jensen, Michael A. Vail, Andrew E. Dadson.
29. nanoUtah 2013, Oct. 18, 2013, Salt Lake City, UT. 'Characterization of thin films for fabrication of carbon-nanotubes templated thin-layer chromatography plates'. Poster presentation by Supriya S. Kanyal. Authors: Supriya S. Kanyal, David S. Jensen, Andrew Dadson, Matthew R. Linford, Michael A. Vail.
30. nanoUtah 2013, Oct. 18, 2013, Salt Lake City, UT. 'A carbon/ternary alloy/carbon optical stack on Mylar as an optical data storage medium to potentially replace magnetic tape.' Poster presentation by Hao Wang. Authors: Hao Wang, Richard J. Gates, Bart M. Lunt, Matthew C. Asplund, Robert C. Davis, Matthew R. Linford, V. Shutthanandan.
31. University of Edmonton, Canada, Sept. 18, 2013. Department seminar. 'The Blind Men and the Elephant as a Metaphor for Surface and Materials Analysis. Application to Long-Term Digital Data Storage.' Invited oral presentation by Matthew R. Linford.
32. Nyrstar, 2013, Aug. 7, 2013, Hobart, Australia. 'The Blind Men and the Elephant as a Metaphor for Surface and Materials Analysis.' Invited oral presentation by Matthew R. Linford.
33. UTAH ACADEMY of Sciences, Arts & Letters, Annual Conference, April 12, 2013, Utah Valley University, Orem, UT. I gave the following oral presentation: 'Towards Permanent Data Storage'. Matthew R. Linford, Barry M. Lunt & Robert C. Davis.
34. Pittcon **2013**, Philadelphia, PA, Mar. 17 – 21. Poster presentation given by David Hung. "Improving Carbon Core-Containing Core-Shell Particles via Extensive Characterization of the Core Materials". Chuan-Hsi Hung, Bhupinder Singh, Landon A. Wiest, David S. Jensen, Robert C. Davis, Michael A. Vail, Andrew E. Dadson, Andrew J. Miles, Matthew R. Linford.
35. Pittcon **2013**, Philadelphia, PA, Mar. 17 – 21. Poster presentation given by Bhupinder Singh. "Improving Nanodiamond-Containing Core-Shell Particles via Extensive Characterization of the Nanodiamonds". Bhupinder Singh, Chuan-Hsi Hung, Landon A. Wiest, David S. Jensen, Robert C. Davis, Michael A. Vail, Andrew E. Dadson, Andrew J. Miles, Matthew R. Linford.
36. Pittcon **2013**, Philadelphia, PA, Mar. 17 – 21. Poster presentation given by David S. Jensen. "Preparation of Core-Shell Polymer/Nanodiamond/Carbon Particles for HPLC". Matthew R. Linford, David S. Jensen, Landon A. Wiest, Chuan-Hsi Hung, Bhupinder Singh, Michael A. Vail, Andrew E. Dadson.
37. Pittcon **2013**, Philadelphia, PA, Mar. 17 – 21. Poster presentation given by David S. Jensen. "Microfabricated Carbon Nanotube Templated Thin Layer Chromatography Plates Show An Increase in Efficiency Over Traditional TLC Plates". David S. Jensen, Supriya S. Kanyal, Andrew Miles, Michael A. Vail, Andrew E. Dadson, Richard Vanfleet, Robert C. Davis, Matthew R. Linford
38. **2013** BYU Student Research Conference (SRC) in the College of Physical & Mathematical Sciences, Mar. 9. Oral presentation given by Anubhav Diwan entitled: "Superhydrophobic Surface Prepared by Aggregation of Silica During Urea Formaldehyde in Situ Polymerization". Coauthors included Dave Jensen and Matthew R. Linford.

39. **2013** BYU Student Research Conference (SRC) in the College of Physical & Mathematical Sciences, Mar. 9. Oral presentation given by Bhupinder Singh entitled: "Application of Nanodiamond-Containing Core-Shell Particles in the Chromatographic Separation of Acidic Herbicides". Coauthors included Matt Linford.

2012

40. Invited department seminar at the University of Tasmania in Hobart, Australia. Dec. 7, **2012**. "New Core-Shell Materials for Liquid Chromatography and New Microfabricated Materials based on Carbon Nanotube Templates for Thin Layer Chromatography." Oral presentation given by Matthew Linford. (I presented.)
41. International Symposium on Optical Memory (ISOM) Sept. 30 – Oct. 4, **2012**, Tokyo Japan. "Towards a New Material for SS WORM Storage". Poster presentation given by Barry Lunt. Barry M. Lunt, Anthony Pearson, Robert Davis, Hao Wang, Sarah Jamieson, Matthew R. Linford.
42. International Symposium on Optical Memory (ISOM) Sept. 30 – Oct. 4, **2012**, Tokyo Japan. "The Effect of Geometry on Nanoscale Tellurium Fuses for Solid State Data Storage". Poster presentation given by Robert Davis. Anthony Pearson, Bhupinder Singh, Matthew R. Linford, Barry Lunt, Robert Davis.
43. International Symposium on Optical Memory (ISOM) Sept. 30 – Oct. 4, **2012**, Tokyo Japan. "Materials Study of Nanoscale Fuses for Solid State Data Storage". Poster presentation given by Robert Davis. Anthony Pearson, Bhupinder Singh, Matthew R. Linford, Barry Lunt, Robert Davis.
44. HPLC 2012. June 16 – 21, 2012. Anaheim, CA. "Fabrication and Chromatographic Separations on Binder-Free, Carbon Nanotube-Fabricated Thin Layer Chromatography Plates." Oral presentation by Matthew Linford. (The abstract for this presentation is not in the conference program. I received an invitation to give this talk after the program was complete.) Matthew R. Linford, Robert C. Davis, David S. Jensen, Supriya S. Kanyal, Michael A. Vail, Andrew E. Dadson. (I presented.)
45. HPLC 2012. June 16 – 21, 2012. Anaheim, CA. "Studying the Deposition Parameters and Improving the Microfabrication of High Efficiency TLC Plates Produced From Patterned, Infiltrated Carbon Nanotube Forests." Poster presentation by Linford. Matthew R. Linford; David S. Jensen; Supriya Kanyal; Richard Vanfleet; Robert C. Davis; Michael Vail; Andrew E. Dadson. (I presented.)
46. HPLC 2012. June 16 – 21, 2012. Anaheim, CA. "New Diamond-Based Coatings On Carbon Spheres for Use in High Temperature and Extreme pH Reversed Phase HPLC." Poster presentation given by David S. Jensen. Landon A. Wiest; Chuan-Hsi Hung; David S. Jensen; Robert C. Davis; Andrew E. Dadson; Michael A. Vail; Matthew R. Linford.
47. HPLC 2012. June 16 – 21, 2012. Anaheim, CA. "Comparison of Efficiencies of Diamond-Based Core-Shell Materials for HPLC Made with Different Sizes of Nanodiamonds and Core Carbon Particles." Poster presentation given by David S. Jensen. Chuan-Hsi Hung; Landon A. Wiest; David S. Jensen; Robert C. Davis; Andrew E. Dadson; Michael A. Vail; Matthew R. Linford.

48. AVS 59th International Symposium & Exhibition, Oct. 28 – Nov. 2, 2012, Tampa, FL. Oral presentation by N. Madaan. “Chemically and Mechanically Stable Hydrophobic Thin Films Prepared by Combination of Layer-By-Layer Approach and Thiolene Chemistry”. N. Madaan, J.A. Tuscano, N.R. Romriell, M.R. Linford.
49. AVS 59th International Symposium & Exhibition, Oct. 28 – Nov. 2, 2012, Tampa, FL. Oral presentation by A. Diwan. “Preparation of Hydrophobic Coatings on Si/SiO₂ by Incorporation of Nano- and Microdiamond in a Layer-By-Layer Deposition”. A. Diwan, J. Wilcock, M.R. Linford.
50. AVS 59th International Symposium & Exhibition, Oct. 28 – Nov. 2, 2012, Tampa, FL. Oral presentation by M.R. Linford. “ALD-Based Fabrication and Chromatographic Separations on Binder-Free, Carbon Nanotube-Templated Thin Layer Chromatography Plates”. M.R. Linford, R.C. Davis, D.S. Jensen, S. Kanyal, M.A. Vail, A.E. Dadson. (I presented.)
51. AVS 59th International Symposium & Exhibition, Oct. 28 – Nov. 2, 2012, Tampa, FL. Oral presentation by V. Gupta (talk actually given by Josh Tuscano). “Quasi-ALD for Deposition of a Water Resistive Barrier Layer and Prevent Electronic Devices from Water Shock”. V. Gupta, M.R. Linford.
52. nanoUtah 2012, Oct. 11 – 12, 2012, Salt Lake City, UT. “Preparation of robust optically transparent hydrophobic coatings on silicon.” Oral presentation by A. Diwan. A. Diwan and M.R. Linford.
53. nanoUtah 2012, Oct. 11 – 12, 2012, Salt Lake City, UT. “Nanoscale carbon fuses for write-once-read-many data storage devices.” Poster presentation by Sarah Jamieson. Sarah Jamieson, Anthony C. Pearson, Robert C. Davis, Matthew R. Linford, Barry M. Lunt.
54. nanoUtah 2012, Oct. 11 – 12, 2012, Salt Lake City, UT. “Comparison of efficiencies of diamond-based core-shell materials for HPLC made with different sizes of nanodiamonds.” Poster presentation by Chuan-Hsi Hung. Chuan-Hsi Hung, Landon A. Wiest, David S. Jensen, Bhupinder Singh, Robert C. Davis, Matthew R. Linford.
55. nanoUtah 2012, Oct. 11 – 12, 2012, Salt Lake City, UT. “Rehydration of carbon nanotube-templated thin layer chromatography plates.” Poster presentation by Supriya S. Kanyal. Supriya S. Kanyal, David S. Jensen, Robert C. Davis, Matthew R. Linford.
56. nanoUtah 2012, Oct. 11 – 12, 2012, Salt Lake City, UT. “Robust hydrophobic coating for contact lens molds.” Poster presentation by Nitesh Madaan. Nitesh Madaan, Josh Tuscano, Naomi Romriell, Matthew R. Linford.
57. nanoUtah 2012, Oct. 11 – 12, 2012, Salt Lake City, UT. “Data and device protection: A ToF-SIMS, wetting, and XPS study of an Apple iPod Nano.” Poster presentation by Joshua Tuscano. Joshua Tuscano, Vipul Gupta, Naomi R. Romriell, Robert C. Davis, Matthew R. Linford.
58. ISC 2012. Sept. 9 – 13, 2012, Torun, Poland. “Preparation of core-shell polymer/nanodiamond/carbon particles for HPLC.” Oral presentation by Landon Wiest. M. R. Linford, L. A. Wiest, C.-H. Hung, B. Singh, R. C. Davis, D. S. Jensen, S. S. Kanyal, M. A. Vail, A. E. Dadson.
59. ISC 2012. Sept. 9 – 13, 2012, Torun, Poland. “Fabrication and Chromatographic Separations on Binder-Free, Carbon Nanotube-Fabricated Thin Layer Chromatography Plates”. Poster presentation by Landon Wiest. Matthew R. Linford, Robert C. Davis, David S. Jensen, Supriya S. Kanyal, Michael A. Vail, Andrew E. Dadson.

60. ISC 2012. Sept. 9 – 13, 2012, Torun, Poland. “The Effects of Iron Catalyst Thickness on Carbon Nanotube Templated Microfabricated TLC Plates” Poster presentation by Landon Wiest, Matthew R. Linford, Supriya S. Kanyal, Robert C. Davis, David S. Jensen, Michael A. Vail, Andrew E. Dadson.
61. INVITED. American Chemical Society National Meeting & Exposition. Mar. 25 – 29, **2012**. San Diego, CA. Matthew R. Linford, David S. Jensen, Landon A. Wiest, Supriya Singh Kanyal, David Hung, Adam Larsen, Robert C. Davis, Richard Vanfleet, Michael A. Vail, Andrew Dadson. Oral presentation given by Linford entitled: “New materials for HPLC and TLC”. This talk was part of: ACS Award in Separations Science and Technology: Symposium in Honor of Milton Lee. (I presented.)
62. American Chemical Society National Meeting and Exposition. Mar 25 – 29. **2012**. San Diego, CA. Poster presentation given Adam Larsen. “Hydrophobic Coating on Diamond Based Pellicular Particles; High Temperature and Extreme pH Reversed Phase HPLC”. Adam M. Larsen, Landon A. Wiest, Chuan-Hsi Hung, David S. Jensen, Robert C. Davis, Andrew E. Dadson, Michael A. Vail, Matthew R. Linford.
63. **2012** BYU Student Research Conference (SRC) in the College of Physical & Mathematical Sciences, Mar. 17. Oral presentation given by Vipul Gupta entitled: “Deposition of hydrophobic coatings on electronic devices”.
64. **2012** BYU Student Research Conference (SRC) in the College of Physical & Mathematical Sciences, Mar. 17. Oral presentation given by Anubhav Diwan entitled: “Preparation of ultra-thin polymer films on silicon by spin coating”.
65. **2012** BYU Student Research Conference (SRC) in the College of Physical & Mathematical Sciences, Mar. 17. Oral presentation given by Supriya Kanyal entitled: “Effects of catalyst thickness on carbon nanotubes-templated thin layer chromatography plates”.
66. **INVITED**. Pittcon **2012**, Orlando, FL, Mar. 11 – 15. Oral presentation given by Linford in a symposium organized by Luis Colon. “Stable, Microfabricated Thin Layer Chromatography Plates Prepared on Infiltrated, Patterned Carbon Nanotube Forests”. Matthew R. Linford, David S. Jensen, Supriya S. Kanyal, Cody Cushman, Laurel Peacock, Michael A. Vail, Andrew E. Dadson, Richard Vanfleet, Robert C. Davis. (I presented.)
67. **INVITED**. Pittcon **2012**, Orlando, FL, Mar. 11 – 15. Oral presentation given by David S. Jensen in a symposium organized by Matthew Linford (Linford was listed as the speaker at this symposium). “Van’t Hoff Analysis in Liquid Chromatography Applies to Thermally Stable Materials”. Matthew R. Linford, Landon A. Wiest, Chuan-Hsi Hung, Loryn K. Killpack, James M. Christensen, Grant M. Brown, Robert C. Davis, Richard Vanfleet, Michael A. Vail, Andrew E. Dadson, Pavel N. Nesterenko.
68. Pittcon **2012**, Orlando, FL, Mar. 11 – 15. Poster presentation given by Matthew Linford (David S. Jensen was listed in the program as the presenter). “Fabrication and Chemical Separations on Binder-Free Carbon Nanotube Templated Thin Layer Chromatography Plates”. David S. Jensen, Supriya S. Kanyal, Andrew E. Dadson, Michael A. Vail, Robert C. Davis, Richard Vanfleet, Matthew R. Linford. (I presented.)
69. Pittcon **2012**, Orlando, FL, Mar. 11 – 15. Oral presentation given by Chuan-Hsi Hung. “Comparison of Efficiencies of Diamond-Based Core-Shell Materials for HPLC Made with Different Sizes of Nanodiamonds and Core Carbon Particles”. Chuan-Hsi Hung, Landon A.

Wiest, James M. Christensen, Loryn K. Killpack, Robert C. Davis, Michael A. Vail, Andrew E. Dadson, Matthew R. Linford.

70. Pittcon **2012**, Orlando, FL, Mar. 11 – 15. Oral presentation given by Landon A. Wiest. “New Hydrophobic Coatings on Carbon Spheres for Use in High Temperature and Extreme pH Reversed Phase HPLC.” Landon A. Wiest, Loryn K. Killpack, David S. Jensen, Chuan-His Hung, James M. Christensen, Robert C. Davis, Michael A. Vail, Pavel N. Nesterenko, Andrew E. Dadson, Matthew R. Linford.
71. Pittcon **2012**, Orlando, FL, Mar. 11 – 15. Oral presentation given by Supriya Kanyal. “Effect of Catalyst Thickness on Carbon Nanotube (CNT) Morphology in CNT-Templated Fabrication of Thin Layer Chromatography Plates”. Supriya S. Kanyal, David S. Jensen, Robert C. Davis, Richard Vanfleet, Andrew E. Dadson, Michael A. Vail, Matthew R. Linford, Cody Cushman.
72. International Symposium on Technologies for Digital Photo Fulfillment (TDPF), Jan. 8 – 9, 2012, Las Vegas, NV. “Permanent Storage for Digital Photos.” Oral presentation by Barry Lunt. Barry M. Lunt, Douglas Hansen, Matthew R. Linford.

2011

73. **INVITED.** NEXTGENS TECHNOLOGIES TTI/Vanguard Conference, Miami, FL, Dec. 6 – 7, 2011. Oral presentation given by Linford. “Permanent Optical Data Storage”. (I presented.)
74. AVS 58th International Symposium and Exhibition, Oct. 30 – Nov. 4, 2011, Nashville, TN. Oral presentation given by Linford. “Characterization and Fabrication of Patterned, Infiltrated Carbon Nanotube Forests with Applications to Thin Layer Chromatography”. Authors: M. Linford, D. Jensen, R. Davis, S. Kanyal, A. Dadson, M. Vail. (I presented.)
75. AVS 58th International Symposium and Exhibition, Oct. 30 – Nov. 4, 2011, Nashville, TN. Poster presentation given by Gupta. “Deposition and Characterization of Hydrophobic Coatings on Electronic Devices”. Authors: V. Gupta, S.C. Kunzler, M.R. Linford.
76. nanoUtah 2011, Salt Lake City, UT, Oct. 13 – 14, 2011. Poster presentation given by Chuan-Hsi Hung. “Comparison of efficiencies of diamond-based core-shell materials for HPLC made with different sizes of nanodiamonds and core carbon particles”. Authors: Chuan-Hsi Hung, Landon A. Wiest, James M. Christensen, Loryn K. Killpack, Robert C. Davis, Matthew R. Linford, Michael A. Vail, Andrew E. Dadson.
77. nanoUtah 2011, Salt Lake City, UT, Oct. 13 – 14, 2011. Poster presentation given by Anthony C. Pearson. “Chemical alignment of DNA origami to block copolymer patterned arrays of 5 nm gold nanoparticles”. Authors: Anthony C. Pearson, Elisabeth Pound, Jianfei Liu, Adam T. Woolley, Matthew R. Linford, John N. Harb, and Robert C. Davis.
78. nanoUtah 2011, Salt Lake City, UT, Oct. 13 – 14, 2011. Oral presentation given by David S Jensen. “Fabrication and chemical separations on binder-free carbon nanotube templated thin chromatography plates”. Authors: David S Jensen, Supriya S Kanyal, Robert C Davis, Richard Vanfleet, Matthew R Linford, Andrew E Dadson, Michael A Vail.
79. nanoUtah 2011, Salt Lake City, UT, Oct. 13 – 14, 2011. Poster presentation given by Supriya Singh Kanyal. “Effect of catalyst thickness on carbon nanotube (CNT) morphology

- in CNT-templated fabrication of thin layer chromatography plates”. Authors: Supriya Singh Kanyal, David S. Jensen, Rob Davies, Richard Vanfleet, Matthew R. Linford, Andrew Dadson, Michael A. Vail.
80. nanoUtah 2011, Salt Lake City, UT, Oct. 13 – 14, 2011. Oral presentation given by Vipul Gupta. “Deposition and characterization of hydrophobic coatings on electronic devices” Authors: Vipul Gupta, Shawn C. Kunzler, Matthew R. Linford.
81. ISOM/ODS **2011**, July 17 – 21, Lihue, Kauai, Hawaii. Poster presentation given by Barry Lunt. “Optical Disc Life Expectancy: A Field Report”. Authors: Barry M. Lunt, Matthew R. Linford, Douglas R. Hansen.
82. ISOM/ODS **2011**, July 17 – 21, Lihue, Kauai, Hawaii. Poster presentation given by Barry Lunt. “Optical Disc Drives: A Study of Variation”. Authors: Guilin Jiang, Barry M. Lunt, Travis L. Niederhauser, Matthew R. Linford.
83. HPTLC **2011**, July 6 – 8, Basel, Switzerland. Oral presentation given by Linford. “Fabrication and Chromatographic Separations on Binder-Free, Carbon Nanotube-Fabricated Thin Layer Chromatography Plates”. Author: Matthew Linford [sic]. (I presented.)
84. HPTLC **2011**, July 6 – 8, Basel, Switzerland. Poster presentation given by Linford. “Fabrication and chromatographic separations on binder-free, carbon nanotube-fabricated thin layer chromatography plates”. Authors: Jensen D.S., Linford M.R., Davis R.C., Singh Kanyal S., Gupta V., Vail M.A., Dadson A. (I presented.)
85. HPLC **2011**, June 29 – 23, Budapest, Hungary. Oral presentation given by Linford. “Silica Based Thin-Layer Chromatography Plates Templated through Carbon Nanotubes”. Authors: David Scott Jensen, Supriya Kanyal, Andrew Dadson, Michael Vail, Matthew R. Linford. (I presented.)
86. HPLC **2011**, June 29 – 23, Budapest, Hungary. Poster presentation given by Linford. “Pellicular Stationary Phases Created using Glass Carbon Cores with Porous Nanodiamond Shells for use in Extreme pH Reversed-Phase LC”. Authors: Landon A. Wiest, David S. Jensen, Chuan-Hsi Hung, Rebecca E. Olsen, Robert C. Davis, Michael A. Vail, Andrew Dadson, Pavel Nesterenko, Matthew R. Linford. (I presented.)
87. HPLC **2011**, June 29 – 23, Budapest, Hungary. Poster presentation given by Linford. “Functionalization of Porous Graphitic Carbon with Improved Chromatographic Characteristics”. Authors: David S. Jensen, Vipul Gupta, Andrew Dadson, Michael Vail, Matthew R. Linford. (I presented.)
88. HPLC **2011**, June 29 – 23, Budapest, Hungary. Poster presentation given by Linford. “New Diamond and Carbon-Based Materials for Liquid Chromatography”. Authors: Matthew R. Linford, Landon A. Wiest, David S. Jensen, Robert C. Davis, Andrew Dadson, Michael Vail. (I presented.)
89. Pittcon **2011**, Atlanta, Georgia, March 13 – 18, 2011. David Jensen gave an oral presentation: “Silica-Based Thin-Layer Chromatography Plates Templated Through Carbon Nanotubes”. Authors: David Jensen, Supriya, S. Kanyal, Ricky Wyman, Robert C. Davis, Richard Vanfleet, Andrew Dadson, Michael Vail, Matthew R. Linford.
90. Pittcon **2011**, Atlanta, Georgia, March 13 – 18, 2011. Chuan-Hsi Hung gave a poster presentation: “High Temperature HPLC Separations Using a Diamond-based Core-shell

- Reversed-phase Material". Authors: Chuan-Hsi Hung, Landon A. Weist [sic], Michael Vail, Andrew Dadson, Matthew R. Linford.
91. Pittcon **2011**, Atlanta, Georgia, March 13 – 18, 2011. Landon Wiest gave an oral presentation: "Pellicular Stationary Phases Created Using Graphite Cores with Porous Nanodiamond Shells for use in High pH Reversed-phase HPLC". Authors: Landon A. Wiest, David Jensen, Matthew R. Linford, Chuan-Hsi Hung, Rebecca E. Olsen, Michael Vail, Andrew Dadson.
92. Pittcon **2011**, Atlanta, Georgia, March 13 – 18, 2011. Supriya Kanyal gave an oral presentation: "Novel Silica Based Reversed-phase Thin Layer Chromatography Plates Manufactured Using Carbon Nanotubes as the Framework". Authors: Supriya S. Kanyal, David Jensen, Jun Song, Robert C. Davis, Richard Vanfleet, Michael Vail, Andrew Dadson, Matthew R. Linford.
93. Pittcon **2011**, Atlanta, Georgia, March 13 – 18, 2011. I gave an oral presentation (I gave the talk in Nitesh's place): "Custom-synthesized Polymeric Reagents at Surfaces". Authors: Nitesh Madaan, Joshua Robinson, Aaron Terry, Adam T. Woolley, John N. Harb, Robert C. Davis, Helmut Schlaad, Matthew R. Linford. (I presented.)
94. **INVITED**. Pittcon **2011**, Atlanta, Georgia, March 13 – 18, 2011. I gave an oral presentation: "Core-Shell Particles for HPLC Prepared from Nanodiamond-Polymer Multilayers on Diamond, Zirconia, and Graphite". Authors: Matthew R. Linford, Landon A. Wiest, CH Hung, Andrew Dadson, Michael Vail. (I presented.)
95. Pittcon **2011**, Atlanta, Georgia, March 13 – 18, 2011. Robert Davis gave an oral presentation: "Carbon Nanotube Templated Microfabrication of Chromatography Media". Authors: Robert C. Davis, Andrew Dadson, Supriya S. Kanyal, Matthew R. Linford, Jun Song, Michael Vail, Richard Vanfleet, Ricky Wyman.
96. **INVITED**. Chemistry Department, University of Tasmania, January, **2011**, I gave an oral presentation: "All-Diamond Particles Prepared by Layer-by-Layer Deposition for High Performance Liquid Chromatography *a.k.a.* New Nanostructured Materials for Nanotechnology, TLC, and HPLC". Authors: Matthew R. Linford, Landon A. Wiest, David Jensen, Nitesh Madaan, Supriya Kanyal, David Hung, Andrew Dadson, Robert C. Davis, Richard Vanfleet. (I presented.)

2010

97. ISOM **2010**, Hualien, Taiwan, Oct. 24 – 28. I gave an oral presentation: "Chemical Analysis of the Dyes in Today's Archival and Standard-Grade DVDs". Authors: G. Jiang, D. S. Jensen, M.C. Asplund, D. P. Hansen, R. C. Davis, B. M. Lunt, M. R. Linford. (I presented.)
98. AVS **2010**, Albuquerque, NM, Oct. 17 – 22, 2010. Oral presentation given by Linford entitled: "All-Diamond Particles Prepared by Layer-by-Layer Deposition for High Performance Liquid Chromatography". Authors: M.R. Linford, L.A. Wiest, D.S. Jensen, A. Dadson, M.A. Vail. (I presented.)
99. AVS **2010**, Albuquerque, NM, Oct. 17 – 22, 2010. Oral presentation given by Lei Pei entitled: "Polymer Molded Templates for Nanostructured Vertical Amorphous Silicon

- Photovoltaics”. Authors: Lei Pei, Amy Balls, Cary Tippetts, Matthew R. Linford, Richard Vanfleet, Robert C. Davis. (This was part of a late-breaking session that involved a late abstract: Late Breaking Session Featuring Talks on Energy, Graphene and Atom-Probe Tomography.)
100. nanoUtah **2010**, Salt Lake City, UT, Oct. 14 – 15 , 2010. Oral presentation by Landon A. Wiest entitled: “Pellicular stationary phases created using graphite cores with porous nanodiamond shells for use in high pH reversed-phase HPLC”. Authors: Landon A. Wiest, David S. Jensen, Chuan-His Hung, Rebecca E. Olsen, Matthew R. Linford, Michael A. Vail, Andrew Dadson.
 101. nanoUtah **2010**, Salt Lake City, UT, Oct. 14 – 15 , 2010. Oral presentation by David S. Jensen entitled: “Microfabrication of porous chromatography media with an application in thin-layer chromatography”. Authors: David S. Jensen, Supriya Kanyal, Richard Wyman, Robert Davis, Richard Vanfleet, Matthew R. Linford, Andrew Dadson, Michael A. Vail.
 102. nanoUtah **2010**, Salt Lake City, UT, Oct. 14 – 15 , 2010. Oral presentation by Lei Pei entitled: “Thin smooth carbon nanotube/polymer composite membranes”. Authors: Lei Pei, Matthew R. Linford, Richard Vanfleet, Robert C. Davis.
 103. nanoUtah **2010**, Salt Lake City, UT, Oct. 14 – 15 , 2010. Oral presentation by Feng Zhang entitled: “Chemical vapor deposition (CVD) of three aminosilanes on silicon dioxide: Surface characterization, stability, effects of silane concentration, and cyanine dye adsorption”. Authors: Feng Zhang, Adam M. Larsen, Daniel A. Findley, Matthew R. Linford, Robert C. Davis, Ken Sautter, Hussein Samha.
 104. nanoUtah **2010**, Salt Lake City, UT, Oct. 14 – 15 , 2010. Poster presentation by Chuan-His Hung entitled: “High temperature stability tests for HPLC separations using a diamond-based core-shell reversed-phase material”. Authors: Chuan-His Hung, Landon A. Wiest, Matthew R. Linford, Andrew Dadson, Michael A. Vail.
 105. nanoUtah **2010**, Salt Lake City, UT, Oct. 14 – 15 , 2010. Poster presentation by Supriya S. Kanyal entitled: “High temperature stability tests for HPLC separations using a diamond-based core-shell reversed-phase material”. Authors: Chuan-His Hung, Landon A. Wiest, Matthew R. Linford, Andrew Dadson, Michael A. Vail.
 106. ISC 28th International Symposium on Chromatography, Sept. 12 – 16, **2010**, Valencia, Spain. “ALKYLATED POROUS GRAPHITIC CARBON FOR LIQUID CHROMATOGRAPHY”. An oral presentation given by David Jensen. Authors: Jensen D., Wiest L.A., Dadson A., Vail M.A., Linford M.R.
 107. ISC 28th International Symposium on Chromatography, Sept. 12 – 16, **2010**, Valencia, Spain. “NEW NANOSTRUCTURED MATERIALS FOR HPLC AND TLC”. An oral presentation given by M.R. Linford. Authors: Linford M.R., Wiest L., Jensen D., Kanyal S.S., Dadson A., Vail, M.S. Davis, R.C. Vanfleet R. (I presented.)
 108. ISC 28th International Symposium on Chromatography, Sept. 12 – 16, **2010**, Valencia, Spain. “CORE-SHELL STATIONARY PHASES USING GRAPHITE CORES WITH POROUS NANODIAMOND SHELLS FOR HIGH PH REVERSED-PHASE HPLC”. An oral presentation given by Landon Wiest. Authors: Wiest L.A., Jensen D.S., Hung D., Olsen R., Vail M.A., Dadson A., Linford M.R.
 109. ISC 28th International Symposium on Chromatography, Sept. 12 – 16, **2010**, Valencia, Spain. “NOVEL MICROFABRICATED BINDER FREE THIN LAYER CHROMATOGRAPHY

- PLATES ASSEMBLED USING CARBON NANOTUBES". An oral presentation given by David Jensen. Authors: Jensen D.S., Singh S., Song J., Vanfleet R., Davis R., Vail M.A., Dadson A., Linford M.R.
110. ISC 28th International Symposium on Chromatography, Sept. 12 – 16, **2010**, Valencia, Spain. "CORE-SHELL STATIONARY PHASES USING ZIRCONIA CORES WITH POROUS NANODIAMOND SHELLS FOR REVERSED-PHASE HPLC". A poster presentation given by Landon Wiest. Authors: Wiest L.A., Jensen D.S., Olsen R., Vail M.A., Dadson A., Linford M.R.
111. **INVITED**. Microscopy and Microanalysis **2010**, Portland, OR, Aug. 1 – 5, **2010**. "The Blind Men and the Elephant as a Metaphor for Surface Analysis, as Applied to the Preparation and Analysis of New, Highly Stable Materials for Separations Science" MR Linford, S Copeland, A Dadson, RC Davis, D Jensen, R Olsen, G Saini, V Shutthanandan, J Song, MA Vail, RR Vanfleet, LA Wiest, RD Wyman, L Yang. I gave this oral presentation. (I presented.)
112. Microscopy and Microanalysis **2010**, Portland, OR, Aug. 1 – 5, **2010**. "Chemically Stable High Resolution Surface Patterning by Thiolated DNA for Self Assembly of Nanocircuits on a Gold Nano-Dot Surface" N Madaan, A Terry, RC Davis, H Schlaad, MR Linford. Nitesh Madaan gave this oral presentation.
113. **INVITED**. Linford, M.R. "Thiol-ene Chemistry for Surface Modification." Presented at the Telluride Workshop on Semiconductor Surface Chemistry, July 26 - 30, **2010**. (I presented.)
114. **INVITED**. Linford, M.R. "Diamond Materials in Chromatography." Presented at the Telluride Workshop on Semiconductor Surface Chemistry, July 26 - 30, **2010**. (I presented.)
115. HPLC **2010** Boston, MA, June 19 – 24. I gave an oral presentation – there are relatively few at this conference so this was quite an honor. I would estimate there were at least 300 people in attendance for my talk. The talk was entitled: "Reversed and Normal Phase HPLC on ca. 3 Micron, Diamond, Core-Shell Particles". Authors: Matthew R. Linford, Landon A. Wiest, David Jensen, Sarah Copeland, Andrew Dadson, Michael A. Vail, Milton L. Lee. (I presented.)
116. HPLC **2010** Boston, MA, June 19 – 24. My graduate student Landon Wiest was nominated for the Csaba Horvath Young Scientist Award and was given an oral presentation at this conference. He talk was entitled: "Core-shell Stationary Phases Using Zirconia Cores with Porous Nanodiamond Shells for Reversed-Phase HPLC." Authors: Landon A. Wiest, David S. Jensen, Gaurav Saini, Michael A. Vail, Andrew Dadson, Matthew R. Linford.
117. HPLC **2010** Boston, MA, June 19 – 24. My graduate student David Jensen gave a poster presentation entitled: "Perfluoroalkylated and Alkylated Porous Graphitic Carbon for Liquid Chromatography". Authors: David S. Jensen, Landon A. Wiest, Li Yang, Michael A. Vail, Andrew Dadson, Matthew R. Linford.
118. HPLC **2010** Boston, MA, June 19 – 24. My graduate student David Jensen gave a second poster presentation entitled: "Binder Free Thin Layer Chromatography Plates Prepared by Microfabrication". Authors: David S. Jensen, Jun Song, Li Yang, Michael A. Vail, Andrew Dadson, Robert C. Davis, Richard R. Vanfleet, Matthew R. Linford.

119. HPLC **2010** Boston, MA, June 19 – 24. My graduate student Landon Wiest gave a poster presentation entitled: “Advances in Diamond-based SPE: New Functionalization and Monolithic Structures Created in situ”. Authors: Landon A. Wiest, Gaurav Saini, Steven L. Castle, Samuel S. Tartakoff, Michael A. Vail, Andrew Dadson, Matthew R. Linford.
120. **INVITED**. Pittcon **2010** Orlando, FL Feb 28 – Mar 5. I gave an oral presentation at a symposium on “Emerging Materials in Separation Science,” entitled “Functionalized Diamond as a Stationary Phase in Chromatography.” Authors: Matthew R. Linford, Li Yang, Gaurav Saini, Landon Wiest, David S. Jensen, Andrew Dadson, Michael A. Vail. (I organized this symposium with Robert Davis and was an invited speaker.) (I presented.)
121. **INVITED**. Pittcon **2010** Orlando, FL Feb 28 – Mar 5. Robert C. Davis gave an oral presentation at a symposium on “Emerging Materials in Separation Science,” entitled “Micro and Nanofabrication of Chromatography Media.” Authors: Robert C. Davis, R.R. Vanfleet, Matthew R. Linford. (I organized this symposium with Robert Davis and he was an invited speaker.)
122. Pittcon **2010** Orlando, FL Poster entitled: “Chemically Stable High Resolution Surface Patterning by Thiolated DNA for Self Assembly of Nanocircuits” given by Nitesh Madaan. Authors: Nitesh Madaan, Robert C. Davis, Helmut Schlaad, M.R. Linford.
123. Pittcon **2010** Orlando, FL Poster entitled: “Binder Free Thin Layer Chromatography Plates Assembled Through Micro-fabrication” given by David S. Jensen. Authors: David S. Jensen, Li Yang, Jun Song, John Evans, Richard Vanfleet, Robert C. Davis, Michael A. Vail, Andrew Dadson, Matthew R. Linford.
124. Pittcon **2010** Orlando, FL Feb 28 – Mar 5. David S. Jensen gave a talk on “Perfluoroalkylated and Alkylated Porous Graphitic Carbon for Liquid Chromatography” in the “Innovations in Separation Science” session. Authors: David S. Jensen, Li Yang, Landon A. Wiest, Michael A. Vail, Andrew Dadson, Matthew R. Linford.
125. Pittcon **2010** Orlando, FL Poster entitled: “Core-shell Diamond Particles for Use in SPE and HPLC” given by Landon A. Wiest at the “General Applications for Liquid Chromatography” session. Authors: Landon A. Wiest, Gaurav Saini, David S. Jensen, Michael A. Vail, Andrew Dadson, Matthew R. Linford.
126. Poster entitled: “Lipidomic datasets: Comparing analyses of intact lipids, fatty acids, and the combination of both” given by Jacob L. Hiatt at 2010 AAAS Meeting in San Diego (Feb. 18-22, **2010**). Authors: Jacob L. Hiatt, Michael L. Watson, Landon A. Wiest, Karen Reue, Matthew R. Linford, and Craig D. Thulin. Jacob and Michael are undergraduates. Landon is a graduate student.
127. Gave a talk at the SWAP meeting at the University of Utah on Feb. 6, **2010** entitled: “Diamond Materials as Stationary Phases for HPLC and SPE”. (I presented.)

2009

128. **INVITED**. Gave a seminar at Utah Valley University entitled: “Data Analysis using Chemometrics/Bioinformatics: *Principal Components Analysis*”, Nov. 17, **2009**. (I presented.)

129. 2009 AVS 56th International Symposium & Exhibition, San Jose, CA Nov. 8 – 13, **2009**. I gave a talk entitled: “The First Attachment of Polybutadiene and Functionalized Polybutadiene to Hydrogen-Terminated Silicon, with Post-Derivatization of these Adsorbed Species.” Authors: E. NELSEN, T. WICKARD, H. SCHLAAD, R.C. DAVIS, M.R. LINFORD. (I presented.)
130. 2009 AVS 56th International Symposium & Exhibition, San Jose, CA Nov. 8 – 13, **2009**. Brian Davis gave a poster entitled: “Aqueous Polymer Nanografting: AFM patterning of Poly-L-Lysine on Oxide Surfaces.” Authors: B.S. DAVIS, H.J. CONLEY, J.L. KNOEBEL, K.B. HURD, J.N. HARB, M.R. LINFORD, R.C. DAVIS
131. 2009 AVS 56th International Symposium & Exhibition, San Jose, CA Nov. 8 – 13, **2009**. Lei Pei gave a talk entitled: “Thin Smooth Carbon Nanotube/Polymer Composite Membranes.” Authors: L. PEI, R. VANFLEET, M.R. LINFORD, R.C. DAVIS.
132. 2009 AVS 56th International Symposium & Exhibition, San Jose, CA Nov. 8 – 13, **2009**. Feng Zhang gave a talk entitled: “Subsurface Oxidation for Micropatterning Silicon (SOMS).” Authors: F. ZHANG, K. SAUTTER, R.C. DAVIS, M.R. LINFORD.
133. 2009 AVS 56th International Symposium & Exhibition, San Jose, CA Nov. 8 – 13, **2009**. I gave a talk entitled: “Creation of All-Diamond Core-Shell Particles by Layer-by-Layer Deposition for use in Solid Phase Extraction and Chromatography.” Authors: G. SAINI, L.A. WIEST, R.C. DAVIS, A. DADSON, M.A. VAIL, M.L. LEE, M.R. LINFORD. (I presented.)
134. 2009 AVS 56th International Symposium & Exhibition, San Jose, CA Nov. 8 – 13, **2009**. Feng Zhang gave a talk entitled: “CVD of Three Aminosilanes on Silicon Oxide: Effect of Silane Concentration, Surface Characterization and Stability, and Cyanine Dye Adsorption.” Authors: M.R. LINFORD, F. ZHANG, H. SAMHA K. SAUTTER, R.C. DAVIS.
135. 2009 nanoUtah 5th Annual Utah Statewide Nanotechnology Conference. Salt Lake City, UT Oct. 15 – 16, **2009**. Anthony C. Pearson gave a poster entitled: “Assembly of Block Copolymer Micelles on a Lithographically Templated Surface.” Authors: ANTHONY C. PEARSON, MATTHEW R. LINFORD, JOHN HARB, ROBERT C. DAVIS.
136. 2009 nanoUtah 5th Annual Utah Statewide Nanotechnology Conference. Salt Lake City, UT Oct. 15 – 16, **2009**. Kyle A. Nelson gave a poster entitled: “Nano-shaving of Thin Polymer Layers on Silicon Oxide to Produce Chemically Templated Surfaces.” Authors: KYLE A. NELSON, BRIAN DAVIS, HIRAM CONLEY, MATTHEW R. LINFORD, ROBERT C. DAVIS, JOHN N. HARB.
137. 2009 nanoUtah 5th Annual Utah Statewide Nanotechnology Conference. Salt Lake City, UT Oct. 15 – 16, **2009**. Lei Pei gave a poster entitled: “Thin Smooth Carbon Nanotube/polymer Composite Membranes.” Authors: LEI PEI, RICHARD VANFLEET, MATTHEW R. LINFORD, ROBERT C. DAVIS.
138. 2009 nanoUtah 5th Annual Utah Statewide Nanotechnology Conference. Salt Lake City, UT Oct. 15 – 16, **2009**. Nitesh Madaan gave a talk entitled: “Chemically Stable High-Resolution Surface Patterning by Thiolated DNA for Self-Assembly of Nanocircuits.” Authors: NITESH MADAN, MATTHEW LINFORD, ROBERT DAVIS, HELMUT SCHLAAD.
139. 2009 nanoUtah 5th Annual Utah Statewide Nanotechnology Conference. Salt Lake City, UT Oct. 15 – 16, **2009**. Matthew R. Linford gave a talk entitled: “Progress Towards DNA-Based Nanocircuits.” Authors: MATTHEW R. LINFORD, ROBERT C. DAVIS, JOHN N. HARB, ADAM T. WOOLLEY, HELMUT SCHLAAD. (I presented.)

140. 2009 nanoUtah 5th Annual Utah Statewide Nanotechnology Conference. Salt Lake City, UT Oct. 15 – 16, **2009**. Brian S. Davis gave a poster entitled: “Controlled Placement of Carbon Nanotubes using Massively Parallel Indirect Dielectrophoresis.” Authors: BRIAN S. DAVIS, HIRAM J. CONLEY, LAWRENCE BARRETT, DAVID JONES, MATTHEW R. LINFORD, ADAM T. WOOLLEY, DEAN R. WHEELER, JOHN N. HARB, ROBERT C. DAVIS.
141. 2009 nanoUtah 5th Annual Utah Statewide Nanotechnology Conference. Salt Lake City, UT Oct. 15 – 16, **2009**. Landon Wiest gave a talk entitled: “Use of Nanodiamond for Creating Core-shell Diamond Particles for Use in SPE and HPLC.” Authors: LANDON WIEST, DAVID JENSEN, MATTHEW LINFORD, MICHAEL VAIL, ANDREW DADSON.
142. **INVITED**. 2009 I gave an invited talk at the 238th American Chemical Society National Meeting & Exposition. Washington, D.C., August 16 – 20, **2009**. “Diamond-based materials for liquid chromatography.” M.R. Linford, G. Saini, L. Yang, L.A. Wiest, D.S. Jensen, D. Herbert, A. Dadson, M.A. Vail. (I presented.)
143. 2009 My graduate student Nitesh gave a poster at the 238th American Chemical Society National Meeting & Exposition. Washington, D.C., August 16 – 20, **2009**. “Functionalized polymers as agents for surface modification.” N. Madaan, T.D. Wickard, E. Nelsen, J.N. Harb, H. Schlaad, R.C. Davis, M.R. Linford.
144. **INVITED**. 2009 Spoke at the China Lake NavAir facility in CA. “Research on Surface Modification for Optical Data Storage”. June 15, **2009**. (I presented.)
145. “Muscle phosphatidylcholine lipid profile changes in response to exercise.” A.C. Miller, D.R. Sims, B. Roberts, S.G. Wood, C.D. Thulin, M.R. Linford, A. Parcell (Poster presentation given by Miller.) 137th American Chemical Society National Meeting & Exposition, Salt Lake City, UT March 22 – 26, **2009**.
146. “Partially functionalized 1,2 addition polybutadiene attached to hydrogen terminated silicon(111) by visible light.” T.D. Wickard, E. Nelsen, M.R. Linford (Poster presentation given by Wickard.) 137th American Chemical Society National Meeting & Exposition, Salt Lake City, UT March 22 – 26, **2009**.
147. “Nanoshaving of thin polymer layers on silicon oxide to produce chemically templated surfaces” K.A. Nelson, H.J. Conley, B. Davis, J.N. Harb, D. Wheeler, R.C. Davis, M.R. Linford (Oral presentation given by Nelson.) 137th American Chemical Society National Meeting & Exposition, Salt Lake City, UT March 22 – 26, **2009**.
148. “Electrospray ionization mass spectrometry (ESIMS) of intact lipids and fatty-acid methylesterification/gas chromatography (FAME-GC) as complementary methods to differentiate lipidomic profiles of physiological states” C.L. Earl, C. McKeown, J. Moulton, L. Yang, K. Reue, M.R. Linford, C.D. Thulin (Poster presentation given by Cameron Earl.) 137th American Chemical Society National Meeting & Exposition, Salt Lake City, UT March 22 – 26, **2009**.
149. “Direct attachment of epoxides and isocyanates to hydroxyl-terminated microdiamond surfaces for use in chemical separations” L.A. Wiest, G. Saini, S.S. Tartakoff, S.L. Castle, M.A. Vail, A. Dadson, M.R. Linford (Oral presentation given by L. Wiest.) 137th American Chemical Society National Meeting & Exposition, Salt Lake City, UT March 22 – 26, **2009**.
150. “Highly stable core shell diamond for solid phase extraction and high performance liquid chromatography” G. Saini, M.A. Vail, A. Dadson, M.R. Linford (Oral presentation given by

- G. Saini.) 137th American Chemical Society National Meeting & Exposition, Salt Lake City, UT March 22 – 26, **2009**.
151. “Direct polymer attachment on hydrogen/deuterium-terminated diamond particles with solid phase extraction on the resulting sorbents.” L. Yang, M.A. Vail, A. Dadson, M.R. Linford (Oral presentation given by L. Yang.) 137th American Chemical Society National Meeting & Exposition, Salt Lake City, UT March 22 – 26, **2009**.
152. “Micropatterning by silicon subsurface oxidation” (Poster given by Feng Zhang) F. Zhang, K. Sautter, R.C. Davis, M.R. Linford 137th American Chemical Society National Meeting & Exposition, Salt Lake City, UT March 22 – 26, **2009**.
153. “PDMS Contrast Stamping in Microcontact Printing as a Contrast Agent for Surface Imaging by ToF-SIMS” (Oral presentation given by Li Yang) Matthew R. Linford, Li Yang, Vincent Smentkowski, Naoto Shirahata Pittcon **2009**, March 8 – 13, 2009, Chicago, Ill.
154. “Photolithographically Patterned Carbon Nanotube Containing Polymer Thin Films for Sensing Applications” (Oral presentation given by Lei Pei) LEI PEI, Robert C. Davis, Matthew R. Linford Pittcon **2009**, March 8 – 13, 2009, Chicago, Ill.
155. “Diamond Materials in Liquid Chromatography” (Oral presentation given by Linford) MATTHEW R. LINFORD, Gaurav Saini, Li Yang, Landon Andrew Wiest, Michael A. Vail, Andrew Dadson Pittcon **2009**, March 8 – 13, 2009, Chicago, Ill. (I presented.)
156. “Direct Polymer Attachment on Hydrogen/Deuterium-Terminated Diamond Particles with Solid Phase Extraction on the Resulting Sorbents” (Poster given by Li Yang) LI YANG, Michael A. Vail, Andrew Dadson, Matthew R. Linford Pittcon **2009**, March 8 – 13, 2009, Chicago, Ill.
157. “Direct Epoxide Polymer Growth on a Diamond Particle Surface for HPLC” (Poster given by Landon Wiest) LANDON ANDREW WIEST, Gaurav Saini, Samuel S. Tartakoff, Stephen L. Castle, Michael A. Vail, Andrew Dadson, Matthew R. Linford (my name was backwards on this abstract: Linford R. Matthew) Pittcon **2009**, March 8 – 13, 2009, Chicago, Ill.
158. “Micropatterning by Silicon Subsurface Oxidation (M-SiSO) (Poster given by Feng Zhang) FENG ZHANG Pittcon **2009**, March 8 – 13, 2009, Chicago, Ill. (I was the corresponding author on the poster, but my student only put down his name when he submitted the abstract.)
159. **INVITED**. “Functionalization of Hydrogen/Deuterium-Terminated and Oxidized Diamond, and Layer-by-Layer Growth of Polymer/Nanodiamond Multilayers as Applied to Separation Science *and Highlights* of Research from the Linford Lab” (gave this seminar) Linford, M.R. January 29, **2009**, National Institute for Materials Science, Tsukuba, Japan. (I presented.)
160. **INVITED**. “Functionalization of Hydrogen/Deuterium-Terminated and Oxidized Diamond, and Layer-by-Layer Growth of Polymer/Nanodiamond Multilayers as Applied to Separation Science *and Highlights* of Research from the Linford Lab” (gave this seminar) Linford, M.R. January 27, **2009**, Nagasaki Symposium on Nano-Dynamics 2009, Nagasaki University, Nagasaki, Japan. (I was invited to give this talk, and was the first speaker of this symposium.) (I presented.)

2008

161. “Direct epoxide polymer growth on a diamond particle surface for HPCL” Wiest, L. A. (gave the poster presentation), Saini, G., Tartakoff, S. S., Castle, S. L., Vail, M. A., Linford, M. R., 27th International Symposium on Chromatography, September 21 – 25, **2008**, University of Münster, Germany.
162. “Diamond materials in liquid chromatography and solid phase extraction” Linford, M. R. (gave the oral presentation), Yang, L., Saini, G., Wiest, L., Dadson, A., Vail, M. 27th International Symposium on Chromatography, September 21 – 25, **2008**, University of Münster, Germany. (I presented.)
163. “PDMS Contrast Stamping in Microcontact Printing as a Contrast Agent for Surface Imaging by ToF-SIMS” M.R. Linford (gave the oral presentation), L. Yang, N. Shirahata, G. Saini, F. Zhang, L. Pei, M.C. Asplund, D. Kurth, K. Ariga, K. Sautter, T. Nakanishi, V. Smentkowski SIMS Europe 2008 6th European Workshop on Secondary Ion Mass Spectrometry, September 14 – 16, **2008**, Münster, Germany. (I presented.)
164. “Direct Epoxide Polymer Growth on a Diamond Particle Surface for HPLC” L.A. Wiest (gave the poster presentation), G. Saini, S.S. Tartakoff, S.L. Castle, M.A. Vail, A. Dadson, M.R. Linford SIMS Europe 2008 6th European Workshop on Secondary Ion Mass Spectrometry, September 14 – 16, **2008**, Münster, Germany.
165. “Nanografting of Silanes on Silicon Dioxide with Applications to DNA Localization and Copper Electroless Deposition.” Matthew R. Linford (gave oral presentation), Michael V. Lee, Kyle Nelson, Adam Woolley, Dean Wheeler, Robert Davis, John Harb. ACS 82nd Colloid & Surface Science Symposium. NC State University, Raleigh, NC. June 15 – 18, **2008**. (I presented.)
166. “PDMS Transfer Stamping: A New ToF-SIMS Contrast Agent.” Matthew R. Linford (gave oral presentation), Li Yang, Robert C. Davis, Naoto Shirahata, Ken Sautter, Takashi Nakanishi. ACS 82nd Colloid & Surface Science Symposium. NC State University, Raleigh, NC. June 15 – 18, **2008**. (I presented.)
167. “Diamond Materials in Liquid Chromatography and Solid Phase Extraction.” Matthew R. Linford (gave oral presentation), Gaurav Saini, Li Yang, Landon Wiest, David Herbert, Milton Lee, Andrew Dadson, Michael Vail. ACS 82nd Colloid & Surface Science Symposium. NC State University, Raleigh, NC. June 15 – 18, **2008**. (I presented.)
168. “Plasma Diffusion into Narrow Gaps to Create Surfaces with Gradient Chemistries.” Matthew R. Linford, Feng Zhang (gave oral presentation), Li Yang, Ken Sautter, Robert C. Davis. ACS 82nd Colloid & Surface Science Symposium. NC State University, Raleigh, NC. June 15 – 18, **2008**.
169. “PDMS Transfer In Microcontact Printing as a Contrast Agent for ToF-SIMS Imaging.” Li Yang (gave oral presentation), Naoto Shirahata, Matthew R. Linford. Joint NORM/RMRM. Park City, UT. June 15 – 18, **2008**.
170. “Photolithographically Patterned Carbon Nanotube Containing Polymer Thin Films for Sensing Applications.” Lei Pei (gave oral presentation), Robert C. Davis, Matthew R. Linford. Joint NORM/RMRM. Park City, UT. June 15 – 18, **2008**.
171. **INVITED.** “Plasma Diffusion into Narrow Gaps to Create Surfaces with Gradient Chemistries.” Matthew R. Linford (gave oral presentation), Feng Zhang, Li Yang, Robert Davis, Ken Sautter. Joint NORM/RMRM. Park City, UT. June 15 – 18, **2008**. (I presented.)

172. “Chemical Patterning by Polymer Nanografting on Oxide Surfaces.” Brian Davis (gave oral presentation), Hiram Conley, Katherine Hurd, Matthew Linford, Robert Davis. Joint NORM/RMRM. Park City, UT. June 15 – 18, **2008**.
173. “C18 Phases on Diamond for Liquid Chromatography and Solid Phase Extraction.” Landon Wiest (gave oral presentation), Gaurav Saini, Michael Vail, Matthew Linford. Joint NORM/RMRM. Park City, UT. June 15 – 18, **2008**.
174. “Amino Modified Diamond as a Highly Durable Stationary Phase for Solid Phase Extraction.” Gaurav Saini, Li Yang, Michael Vail, Milton Lee, Matthew Linford (oral presentation was actually given by Landon Wiest – Gaurav was ill). Joint NORM/RMRM. Park City, UT. June 15 – 18, **2008**.
175. “Muscle Membrane Lipid Changes In Response to Exercise”. Brad A. Roberts (gave poster presentation), Daniel R. Sims, Steven G. Wood, Matthew R. Linford. Joint NORM/RMRM. Park City, UT. June 15 – 18, **2008**.
176. “C18 Phases on Diamond for Liquid Chromatography and Solid Phase Extraction”. Landon Wiest (gave poster presentation), Gaurav Saini, David Herbert, Andrew Dadson, Michael Vail, Matthew R. Linford. HPLC 2008. Baltimore, MD. May 10-16, **2008**.
177. “Phenyl and Sulfonic Acid Based Phases on Diamond for Liquid Chromatography and Solid Phase Extraction”. Li Yang (gave poster presentation), Andrew Dadson, Michael Vail, Matthew R. Linford. HPLC 2008. Baltimore, MD. May 10-16, **2008**.
178. “Amino-based Phases on Diamond for Liquid Chromatography and Solid Phase Extraction”. Gaurav Saini (gave poster presentation), Li Yang, Landon Wiest, David Herbert, Andrew Dadson, Michael Vail, Matthew R. Linford. HPLC 2008. Baltimore, MD. May 10-16, **2008**.
179. “Diamond Materials in Liquid Chromatography and Solid Phase Extraction”. Matthew R. Linford (gave oral presentation), Li Yang, Gaurav Saini, Landon Wiest, David Herbert, Andrew Dadson, Michael Vail. HPLC 2008. Baltimore, MD. May 10-16, **2008**. (I presented.)
180. “Automated Solid Phase Extraction of Lipids In Biological Tissue Extracts”. Landon A. Wiest (presented poster), Katherine N Biggs, Josiah Moulton, Steven Wood, Craig Thulin, Matthew R Linford. Pittcon 2008, New Orleans, LA. March 2 – 6, **2008**.
181. “Monolithic Diamond Materials for Liquid Chromatography”. Matthew R. Linford (gave oral presentation), Michael A Vail, Milton L Lee, Li Yang, Gaurav Saini, Feng Zhang. Pittcon 2008, New Orleans, LA. March 2 – 6, **2008**. (I presented.)
182. “Photolithographically Patterned Carbon Nanotube Containing Polymer Thin Films for Sensing Applications”. Lei Pei (gave oral presentation), Robert C Davis, Matthew R Linford. Pittcon 2008, New Orleans, LA. March 2 – 6, **2008**.
183. **INVITED**. Linford, M.R. and Davis, R.C. “Nanografting of Silanes on Silicon Dioxide and Chemomechanical (AFM) Modification of Silicon”. Max Planck Institute for Surface and Colloid Science, Golm, Germany. January 22, **2008**. (I presented.)

2007

184. Yang, L.; Zhang, F.; Shirahata, N.; Nakanishi, T.; Linford, M.R. "Study of the Interplay between PDMS and Surfaces Modified with Monolayers and Small Molecules" AVS 54th International Symposium, October 18, **2007** (poster given by Li Yang).
185. Linford, M.R.; Asplund, M.C.; Gates, R.; Zhang, F.; Saini, G. "Microlens Array Patterning of Glass and Silicon for Protein Bioarray Formation." AVS 54th International Symposium, October, **2007** (poster given by Feng Zhang).
186. Linford, M.R. "Ongoing Research in the BYU ASCENT Nanotechnology Group (Assembled Circuit Elements by Nucleic Acid Templating) The First Successful AFM Nanografting and Nanoshaving on Silicon Dioxide" nanoUtah Conference, Salt Lake City, UT (University of Utah) **2007**. (I presented.)
187. **INVITED.** Linford, M.R. Gave a talk at the National Institute for Materials Science in Tsukuba, Japan entitled: "Advanced Modification of Silicon Surfaces: i) NEXAFS of Monolayers on Scribed Silicon, ii) PDMS Contrast Stamping, iii) Direct Polymer Growth, and iv) Bioarray Formation." July 30, **2007** in Tsukuba, Japan. (I presented.)
188. Linford, M.R. Gave a *ca.* 2.5 hr presentation at Eigenvector University (this is a weeklong course on chemometrics offered by Eigenvector Research, Inc.) entitled: "Mass Spectral Data Analysis using Chemometrics/Bioinformatics." May 4, **2007** in Seattle, WA. (I presented.)
189. Pei, L.; Baxter, L.; Linford, M.R. Gave a poster presentation at Eigenvector University on May 1, **2007** in Seattle, WA entitled: "ToF-SIMS of Coal: A Chemometrics Analysis." (I presented.)
190. Linford, M.R.; Hansen, D. Gave a presentation to Andy Maltz, who is the Director of the Science and Technology Council of the Academy of MotionPicture Arts and Sciences. The presentation was on data archival. April 14, **2007** in Las Vegas, NV. (I presented.) (Doug and I presented this together.)
191. Linford, M.R.; Pei, L.; Jiang, G.; Baxter, L. "Advanced Analytical Methods for Fuels Characterization." Presentation given at the ACERC 21st Annual Conference, Feb. 28, **2007** in Provo, UT. (I presented.)
192. **INVITED.** Linford, M.R. "Data Analysis using Chemometrics/Bioinformatics". Presentation given by M.R. Linford at Evans Analytical Group, February 26, **2007**. Sunnyvale, CA. (I presented.)
193. Linford, M.R.; Asplund, M.C.; Zhang, F.; Saini, G.; Gates, R.J.; Bennion, E.A. "Microlens Fabrication of High Density Bioarrays." Poster and short oral presentation given by M.R. Linford at the 34th Conference on the Physics and Chemistry of Semiconductor Interfaces. Salt Lake City, Utah, January 15, **2007**. (I presented.)

2006

194. **INVITED.** Linford, M.R. "Bioarrays with 10,000 Functionalized Spots per Square cm." Oral presentation to the Ariga group at the National Institute for Materials Science in Japan, Dec. 18, **2006**. (I presented.)
195. Linford, M.R.; Asplund, M.C.; Zhang, F.; Saini, G. "Bioarrays with 10,000 Functionalized Spots per Square cm." Oral presentation given at the AVS Meeting in San

- Francisco, Nov. 12 – 17, **2006**. This presentation was given as part of a special session that honored Marcus Textor. (I presented.)
196. **INVITED.** Linford, M.R. "Direct Polymer Growth on Hydrogen-Terminated Silicon." Oral presentation given at Micron Corporation in Boise, ID on Nov. 3, **2006**. (I presented.)
197. Linford, M.R.; Asplund, M.C.; Zhang, F.; Saini, G.; Gates, R.J.; Bennion, E.A. "Microlens Fabrication of High Density Bioarrays." Poster presentation given by F. Zhang at the AVS Meeting in San Francisco, Nov. 12 – 17, **2006**.
198. Linford, M.R.; Asplund, M.C.; Zhang, F.; Saini, G.; Gates, R.J.; Bennion, E.A. "Microlens Fabrication of High Density Bioarrays." Poster presentation given by F. Zhang and G. Saini at the nanoUtah 06 meeting on October 5, **2006**.
199. Linford, M.R.; Asplund, M.C.; Zhang, F.; Saini, G.; Gates, R.J.; Bennion, E.A. "Microlens Fabrication of High Density Bioarrays." Poster presentation given by Linford at the IBC Chips to Hits (Discovery to Diagnostics) meeting in Boston, MA, Sept. 25 – 27, **2006**. (I presented.)
200. Yang, L.; Bennett, R.; Thulin, C.; Linford, M.R. "A Mass Spectral Analysis of Mouse Liver Samples from a Cholesterol Metabolism Study at the La Jolla Institute for Molecular Medicine (LJIMM)". Presentation given primarily by Li Yang and a small part by Richard Bennett on September 7, **2006**.
201. **INVITED.** Linford, M.R. "Chemomechanical and laser activated modification of silicon." Presented on August 1, **2006** at the Telluride Workshop on Functional Modification of Semiconductor Surfaces. (I presented.)
202. ter Maat, J.; Lee, M.V.; Zuilhof, H.; Linford, M.R. "A Chemometrics Study of ToF-SIMS of Alkyl Monolayers on Hydrogen-Terminated Silicon Carbide". Poster presentation given by Linford at Eigenvector University, Seattle, WA, on April 24 and 26, **2006**. Eigenvector University is the name of a one-week short course on chemometrics run by Eigenvector Research, Inc. (I presented.)
203. Lee, M.V. Gas Phase Chemomechanical Modification of Silicon. Michael gave this talk at the Spring Research Conference at BYU, March 18, **2006**. I was the faculty advisor on this talk.
204. Zhang, F. Wet Spinning of Polyaniline into an Aqueous Solution of a Polyelectrolyte. Feng gave this talk at the Spring Research Conference at BYU, March 18, **2006**. I was the faculty advisor on this talk.
205. Saini, G.; Zheng, F.; Linford, M.R. Bioarray's formation on Si wafer. Gaurav gave this talk at the Spring Research Conference at BYU, March 18, **2006**. I was the faculty advisor on this talk.
206. Yang, L.; Lua, Y.-Y.; Tan, M.; Scherman, O.A.; Grubbs, R.H.; Harb, J.N.; Davis, R.C.; Linford, M.R. Li gave this talk at the Spring Research Conference at BYU, March 18, **2006**. I was the faculty advisor on this talk.
207. Pei, L.; Jiang, G.; Strossman, G.; Smentkowski, V.; Davis, R.C.; Asplund, M.; Linford, M.R. Lei gave this talk at the Spring Research Conference at BYU, March 18, **2006**. I was the faculty advisor on this talk.
208. Strum, J.; Thulin, C.; Linford, M.; Jackson, B. Liver Tissue Characterization with LC/MS. John (an undergraduate) gave this talk at the Spring Research Conference at BYU, March 18, **2006**. I was the faculty advisor on this talk.

2005

209. Jiang, G.; Asplund, M.C.; Linford, M.R. Laser Activation-Modification of Surfaces. A talk given at the American Vacuum Society 52nd International Symposium, Boston, MA Oct. 30 – Nov. 4, **2005**. (I presented.)
210. Nelson, K.; Blood, J.; Cosby, S.; Lee, M.; Harb, J.; Wheeler, D.; Linford, M.; Woolley, A.; Davis, R. Selective Metallization of AFM-Patterned Functionalized Silane Monolayers. A talk given by John Harb or one of his students at the 208th Meeting of The Electrochemical Society, Los Angeles, CA. Oct. 16- 21, **2005**.
211. Linford, M.; Jiang, G.; Michaelis, D.; Parent, A.; Savage, P. Direct ToF-SIMS Analysis of Thin Layer Chromatography Plates. Talk given at SIMS XV International Meeting in Manchester, England, 12-16 September, **2005**. (I presented.)
212. Linford, M.; Asplund, M.; Jiang, G. Imaging, Spectra, and Chemometrics of ToF-SIMS of Alkyl Monolayers on Silicon, Germanium and Silicon Nitride made by Laser Activation. Poster presented at SIMS XV International Meeting in Manchester, England, 12-16 September, **2005**. (I presented.)
213. Linford, M.R. Surface Patterning and Functionalization by i) Chemomechanical modification, ii) Laser activation, and iii) Direct polymer growth. National Institute of Materials Science, Tsukuba, Japan, July 19, **2005**. (I presented.)
214. Linford, M.R. A rapid, facile approach to surface modification and patterning by chemomechanically scribing materials + some new stuff (Laser Activation Modification of Surfaces – LAMS). Talk given at the GE Global Research Center, Niskayuna, NY, April 15, **2005**. (I presented.)
215. Linford, M.R. ToF-SIMS as a Tool for Tissue and Materials Analysis. Talk given at the La Jolla Institute for Molecular Medicine, San Diego, CA, March 16, **2005**. (I presented.)
216. **Invited** Linford, M.R. Chemomechanical Modification of Silicon. talk at the ACS meeting in San Diego, March 13-17, **2005**. (I presented.)
217. Gave a seminar at Northern Arizona University on February 11, **2005** entitled: Simultaneously Functionalizing and Patterning Silicon by Scribing in the Presence of Reactive Species (Chemomechanical Surface Modification). (I presented.)
218. Gave a seminar at Southern Utah University on January 24, **2005** entitled: A New Method of Simultaneously Functionalizing and Patterning Silicon. (I presented.)

2004

219. Single Step Functionalization of Scribed Silicon with Acid Chlorides and Epoxides. Pew, C.A.; Lua, Y.-Y.; Fillmore, W.J.J.; Linford, M.R. AVS 51st International Symposium & Exhibition, Nov. 14-19, **2004**, Anaheim, CA.) (C.A. Pew presented this poster.)
220. The First Demonstration of the Gas Phase Modification of Scribed Silicon. Lee, M.V.; Casey, S.M.; Linford, M.R. AVS 51st International Symposium & Exhibition, Nov. 14-19, **2004**, Anaheim, CA.) (M.V. Lee was the speaker.)

221. Chemomechanically Scribing Silicon with an AFM in a Read/Write Fashion. M.V. Lee, Gertsch, K.; Davis, R.C.; Linford, M.R. AVS 51st International Symposium & Exhibition, Nov. 14-19, **2004**, Anaheim, CA.) (R.C. Davis was the speaker.)
222. Nanoscale Chemomechanical Patterning of Silicon and Germanium Surfaces Using an Atomic Force Microscope. Davis, R.C.; Tonks, M.; Barnett, K.; Lee, M.; Linford, M.R. AVS 51st International Symposium & Exhibition, Nov. 14-19, **2004**, Anaheim, CA.) (R.C. Davis presented this poster.)
223. A Chemometrics Analysis of ToF-SIMS Spectra of Monolayers on Scribed Silicon. Yang, L.; Lua, Y.-Y.; Jiang, G.; Linford, M.R. AVS 51st International Symposium & Exhibition, Nov. 14-19, **2004**, Anaheim, CA.) (L. Yang was the speaker.)
224. ToF-SIMS as an Important Tool for Fuel Characterization: A Chemometrics Study. Jiang, G.; Stone, D.; Baxter, L.; Tyler, B.J.; Linford, M.R. AVS 51st International Symposium & Exhibition, Nov. 14-19, **2004**, Anaheim, CA.) (G. Jiang was the speaker.)
225. Producing Substrates for MALDI-MS by Chemomechanically Scribing Silicon and Glass. Blake, R.; Jiang, G.; Thulin, C.; Linford, M.R. AVS 51st International Symposium & Exhibition, Nov. 14-19, **2004**, Anaheim, CA.) (R. Blake presented this poster.)
226. Lua, Y.-Y.; Pew, C.A.; Schnieders, A.; Savage, P.B.; Davis, R.C.; Linford, M.R. Improved ToF-SIMS Ion Yields and Cationization of Water-Soluble Analytes by Polyelectrolyte Multilayers. AVS 51st International Symposium & Exhibition, Nov. 14-19, **2004**, Anaheim, CA.) (Y.-Y. Lua was the speaker.)
227. Gave a lecture as part of the Y Chem Lecture Series on December 1, **2004** at Brigham Young University entitled: "Careers in Industry". (I presented.)
228. Gave a departmental seminar at the University of Utah on October 18, **2004** entitled: Simultaneously Functionalizing and Patterning Silicon by Scribing in the Presence of Reactive Species (Chemomechanical Surface Modification) (I presented.)
229. Linford, M.R.; Davis, R.C.; Jiang, G.; Tonks, M.; Lua, Y.-Y. Advances in Chemomechanical Surface Modification of Silicon and Germanium. Joint ACS 59th Northwest & 18th Rocky Mountain Regional Meeting. June 6-9, **2004**. (I presented.)
230. Lee, M.V.; Linford, M.R.; Davis, R.C. Chemomechanical Functionalization Read-Write Methodology. Joint ACS 59th Northwest & 18th Rocky Mountain Regional Meeting. June 6-9, **2004**. (M.V. Lee was the speaker.)
231. Jiang, G.; Tyler, B.J.; Baxter, L.; Linford, M.R. Time-of-Flight Secondary Ion Mass Spectrometry (ToF-SIMS) of Biomass and Coal: A Chemometrics Analysis. 18th Annual ACERC (Advanced Combustion Engineering Research Center) Conference. Provo, UT. January 12, **2004**. (G. Jiang was the speaker.)
232. Jiang, G.; Tyler, B.J.; Baxter, L.; Linford, M.R. Time-of-Flight Secondary Ion Mass Spectrometry (ToF-SIMS) of Biomass and Coal: A Chemometrics Analysis. 18th Annual ACERC (Advanced Combustion Engineering Research Center) Conference. Provo, UT. January 12, **2004**. (I presented.)

2003

233. Spoke at Tulane University Chemical Engineering Department November 14, **2003**. "A New Method for Simultaneously Functionalizing and Patterning Silicon by Scribing in the Presence of Reactive Species." (I presented.)
234. Spoke at Princeton University Chemistry Department October 14, **2003**. "A New Method for Simultaneously Functionalizing and Patterning Silicon by Scribing in the Presence of Reactive Species." (I presented.)
235. Spoke at the University of Delaware Chemistry Department October 13, **2003**. "A New Method for Simultaneously Functionalizing and Patterning Silicon by Scribing in the Presence of Reactive Species." (I presented.)
236. Linford, M.R.; Lua, Y.-Y.; Sathyapalan, A. Cationization from Polyelectrolyte Multilayers. SIMS XIV, San Diego, CA Sept. 15-19, **2003**. (Oral presentation.) (I presented.)
237. Lua, Y.-Y.; Linford, M.R. TOF-SIMS Analysis of Monolayers on Chemomechanically Scribed/Patterned Silicon. SIMS XIV, San Diego, CA Sept. 15-19, **2003**. (Oral presentation. Yit-Yian Lua was the presenter. She won a student award for her presentation.)
238. Spoke at the University of Nevada, Reno Chemistry Dept. January 24, **2003**. "A New Method for Simultaneously Functionalizing and Patterning Silicon by Scribing in the Presence of Reactive Species." (I presented.)

SOME RECENT MENTIONS IN THE POPULAR PRESS

239. Work done with Barry Lunt mentioned in BYU's daily newspaper: Daily Universe, April 13, **2009**, p.6.
240. Work being done by Robert Davis, John Harb, Matthew Linford, Dean Wheeler, and Adam Woolley was written up by BYU: <http://byunews.byu.edu/archive07-NOV-Nanoelectronics.aspx>.
241. The work Matt Asplund and I are doing on microlens array patterning of surfaces was mentioned in an article in the Deseret News, Salt Lake City, UT on Jul. 26, **2007**.
242. The work Matt Asplund and I are doing on microlens array patterning of surfaces was mentioned in an article in the Daily Herald, Provo, UT on Jul. 31, **2007**.
243. My picture appeared in NIMS NOW International, Vol. 5, No. 4, p.4, April, **2007** as part of the signing of an MOU between NIMS and BYU.