

## Gary Rubloff – INVITED SEMINARS

1. "Electron and Photon Probes of Surface Electronic Structure", G. W. Rubloff, Materials Science Seminar at MIT, May 2, 1975.
2. "UV Photoemission Studies of Chemisorption and Chemical Reactions of Organic Molecules on Solid Surfaces", G. W. Rubloff, Solid State Seminar at DuPont Central Research and Development Laboratory, Nov. 18, 1975.
3. "Chemisorption and Reactions of Organic Molecules on Ni Surfaces", G. W. Rubloff, ONR Surface Science Discussion, Naval Research Laboratory, Washington, D.C., April 14-15, 1977.
4. "Surface Optical Excitations of Chemisorbed Molecules: CO/Ni(111)", G. W. Rubloff, Physical Sciences Seminar, IBM Research, Yorktown Heights, N.Y., Feb. 14, 1978.
5. "Exciton Transport in SiO<sub>2</sub>", Z.A. Weinberg and G. W. Rubloff, Internat'l. Topical conf. on the Physics of SiO<sub>2</sub> and Its Interfaces, IBM Research, Yorktown Heights, N.Y., March 22, 1978.
6. "Chemisorption and Reactions of Organic Molecules on Ni Surfaces", G. W. Rubloff, ONR Surface Science Discussion, IBM Research, Yorktown Heights, N.Y., April 27-28, 1978.
7. "Spectroscopic Studies of Surface Reactions", G. W. Rubloff, Thin Films Seminar, IBM Research, Yorktown Heights, N.Y., October 25, 1978.
8. "Spectroscopic Studies of Time-Resolved Surface Reactions", G. W. Rubloff, U. of Sussex, Brighton, England, March 30, 1979.
9. "Spectroscopic Studies of Time-Resolved Surface Reactions", G. W. Rubloff, U. of York, York, England, April 2, 1979.
10. "Spectroscopic Studies of Time-Resolved Surface Reactions", G. W. Rubloff, U. of Munich, Munich, Germany, April 4, 1979.
11. "Spectroscopic Studies of Time-Resolved Surface Reactions", G. W. Rubloff, K.F.A. Julich, Julich, Germany, April 5, 1979.
12. "Spectroscopic Studies of Time-Resolved Surface Reactions", G. W. Rubloff, Technical U. of Aachen, Aachen, Germany, April 6, 1979.
13. "Chemical Bonds and Reactions at the Metal-Silicon Interface", G. W. Rubloff, Physical Sciences Seminar, IBM Research, Yorktown Heights, N.Y., Dec. 18, 1979.
14. "Chemical Bonds and Reactions at the Metal/Silicon Interface", G. W. Rubloff, Solid State and Applied Quantum Physics Seminar, Dept. of Engineering and Applied Physics, Yale University, Jan. 18, 1980.
15. "Chemical Bonds and Reactions at the Metal/Si Interface", G. W. Rubloff, Surface Science Seminar, Bell Laboratories, Murray Hill, N.J., April 25, 1980.
16. "Metal/Si and Silicide/Si Interfaces", G. W. Rubloff, Thin Films Seminar, IBM Research, Yorktown Heights, N.Y., October 25, 1978.
17. "Metal-Silicon and Silicide-Silicon Interfaces", G. W. Rubloff, Physics Dept. colloquium, Queens College, Feb. 22, 1982.
18. "Chemical Bonding and Reactions at the Metal/Si Interfaces", G. W. Rubloff, FOM Institute, Amsterdam, The Netherlands, July 27, 1982.
19. "Chemical Bonding and Reactions at the Metal/Si Interfaces", G. W. Rubloff, Technical University of Aachen, Germany, August 20, 1982.
20. "Chemistry and Properties of Metal/Si Interfaces", G. W. Rubloff, School of Physical Sciences, New University of Coleraine, Northern Ireland, February 11, 1983.

21. "Recent Research in Metal/Si and Silicide/Si Contacts", G. W. Rubloff, IBM Germany Boeblingen Laboratory, March 18, 1983.
22. "Chemistry of the Transition-Metal/Si Interface", G. W. Rubloff, Physical Sciences Seminar, IBM Research, Yorktown Heights, N.Y., April 28, 1983.
23. "Metal/Polymer Chemical Bonding and Adhesion", G. W. Rubloff, Packaging Technology group meeting, IBM Research, Yorktown Heights, N.Y., June 6, 1983
24. "Ti/Si Contact Studies", G. W. Rubloff, Silicide Workshop meeting, Semiconductor Science and Technology Department, IBM Research, Yorktown Heights, N.Y., April 24, 1984.
25. "How Simple Is Interfacial Compound Formation?", G. W. Rubloff, F.O.M. Institute, Amsterdam, Netherlands, July 25, 1984.
26. "Metal-Silicon Interfaces - Science and Technology", G. W. Rubloff, Electronic Materials and Devices Seminar, Princeton University, November 19, 1984.
27. "Chemistry of MOS Structures", D. R. Young and G. W. Rubloff, Deposition and Growth Seminar, IBM Research Yorktown, October 24, 1984.
28. "Chemistry of Thin Insulators", G. W. Rubloff, Silicon Technology Seminar, IBM Research Yorktown, May 9, 1986.
29. "Fundamentals of Laser Photoemission for Testing High Speed Devices and Circuits", G. W. Rubloff, Logic, Memory, and Packaging Colloquium, IBM Research, Yorktown, April 22, 1987.
30. "Defect Chemistry in SiO<sub>2</sub>/Si Structures", G. W. Rubloff, MIT Advanced Seminar in Electronic Materials, February 7, 1989.
31. "Chemistry and Defects in Insulator Growth and Processing", G. W. Rubloff, Solid State Sciences Seminar, Sandia Laboratories, June 6, 1989.
32. "Chemistry and Defects in Insulator Growth and Processing", G. W. Rubloff, CNET, Grenoble, France, Sept. 22, 1989.
33. "Chemistry and Processing of Si/SiO<sub>2</sub> Structures", G. W. Rubloff, Applied Physics and Engineering Seminar, Yale University, Jan. 26, 1990.
34. "Chemistry and Processing of Si/SiO<sub>2</sub> Structures", G. W. Rubloff, Condensed Matter Physics Seminar, Renssalaer Polytechnic University, Feb. 5, 1990.
35. "Chemistry and Processing of Si/SiO<sub>2</sub> Structures", G. W. Rubloff, Silicon Technology Dept. seminar, IBM Research, Yorktown, March 30, 1990.
36. "Chemistry and Processing of Si/SiO<sub>2</sub> Structures", G. W. Rubloff, Charles Jones Seminar, Thayer School of Engineering, Dartmouth College, Hanover, NH, May 24, 1990.
37. "Chemistry and Processing of Si/SiO<sub>2</sub> Structures", G. W. Rubloff, Center for Integrated Systems Seminar, Stanford University, June 1, 1990.
38. "Chemistry and Processing of Si/SiO<sub>2</sub> Structures", G. W. Rubloff, Synchrotron Radiation Center, University of Wisconsin, Sept. 28, 1990.
39. "Growth and Surface Chemistry of Passivating Insulators for Silicon Technology", G. W. Rubloff, Office of Naval Research Solid State and Surface Chemistry Contractors' Meeting, Arlington, Va., July 19-21, 1991.
40. "Integrated Processing: from Research to Manufacturing", G. W. Rubloff, Silicon Research Seminar, AT&T Bell Laboratories, Murray Hill, NJ, Sept. 5, 1991.
41. "Fundamental Chemistry in Advanced MOS Technology and Manufacturing", G. W. Rubloff, University of Texas Science and Technology Center seminar series on Synthesis, Growth and Analysis of Electronic Materials, Austin, Texas, Jan. 13, 1992.

42. "Ultraclean and Integrated Processing for MOS Gate Dielectric Structures", G. W. Rubloff, Sematech, Austin, Texas, Jan. 14, 1992.
43. "Fundamental Chemistry in Advanced MOS Technology and Manufacturing", G. W. Rubloff, Carnegie-Mellon University, March 9, 1992.
44. "Fundamental Chemistry in Advanced MOS Technology and Manufacturing", G. W. Rubloff, seminar at Advanced Electronic Materials Processing Distinguished Lecturer Series, North Carolina State University, March 11, 1992.
45. "Fundamental Chemistry and Physics in Silicon MOS Materials Processing and Manufacturing", G. W. Rubloff, Materials Science and Engineering Colloquium, Cornell University, October 20, 1992.
46. "Fundamental Chemistry and Physics in Silicon MOS Materials Processing and Manufacturing", G. W. Rubloff, College of Engineering, University of North Carolina at Charlotte, November 3, 1992.
47. "Microelectronics Process Manufacturability and 3-D Chemistry", G. W. Rubloff, seminar at Advanced Electronic Materials Processing Distinguished Lecturer Series, North Carolina State University, January 28, 1993.
48. "Chemical Processes, Sequences, and Manufacturability for Silicon Microelectronics", G. W. Rubloff, seminar, Department of Chemical Engineering, North Carolina State University, April 15, 1993.
49. "Chemical Processes, Sequences, and Manufacturability for Silicon Microelectronics", G. W. Rubloff, seminar, Department of Electrical Engineering, University of Delaware, April 21, 1993.
50. "Advanced Processing Research for Microelectronics Manufacturability", G. W. Rubloff, seminar, Department of Electrical Engineering, Ohio State University, March 15, 1994.
51. "Advanced Processing Research for Microelectronics Manufacturability", G. W. Rubloff, seminar, Department of Manufacturing Engineering, Boston University, March 31, 1994.
52. "Chemistry and Physics in Advanced Semiconductor Technology and Manufacturing", G. W. Rubloff, seminar, Virginia Commonwealth University, April 28, 1994.
53. "Chemistry and Physics in Advanced Semiconductor Technology and Manufacturing", G. W. Rubloff, Physics Dept. seminar, University at Albany, Dec., 20, 1994.
54. "Physics and Chemistry in Advanced Semiconductor Materials Manufacturing", G. W. Rubloff, physics/materials seminar, Ohio State University, Jan. 3, 1995.
55. "Chemical Vapor Deposition for Semiconductor Manufacturing: Film Topography, Process Sensors for Control, and Dynamic Simulation", G. W. Rubloff, Electrical Engineering seminar, Ohio State University, Jan. 4, 1995.
56. "Strategic Directions in Electronic Materials Processing for Semiconductor Manufacturing", G. W. Rubloff, ECE Seminar, North Carolina State University, March 10, 1995.
57. "Semiconductor Manufacturing Research: Challenges in Process Design and Control", G. W. Rubloff, LSI Logic, Santa Clara, CA, March 21, 1995.
58. "Semiconductor Manufacturing Research: Challenges in Process Design and Control", G. W. Rubloff, Arizona State University, March 22, 1995.
59. "Semiconductor Manufacturing Research: Challenges in Process Design and Control", G. W. Rubloff, Virginia Commonwealth University, April 20, 1995.
60. "Sensing and Simulation in Semiconductor Manufacturing Processes: Pathways to Control, Optimization, Environment, and Education", G. W. Rubloff, Seminar, Motorola APRDL, Austin, TX, May 29, 1996.

61. "Engineered Learning Systems for Engineering and Education", G. W. Rubloff, Center for Environmentally Benign Semiconductor Manufacturing teleseminar, Sept. 23, 1999.
62. "Chemical Processes, Sensing, and Systems for Semiconductor Materials Manufacturing", G. W. Rubloff, UMD/NSA Laboratory for Physical Sciences seminar, Nov. 10, 1999.
63. "Research Programs and Interests", G. W. Rubloff, ITC-IRST seminar, June 20, 2001.
64. "From Surfaces to Systems: Current Research at the University of Maryland", G. W. Rubloff, ITC-IRST colloquium, June 22, 2001.
65. "Surfaces, Interfaces, and Chemical Reactions in Semiconductor Technology and Manufacturing", G. W. Rubloff, University of Trento Physics Dept. Colloquium, June 28, 2001.
66. "Integrated ESH Assessment: Cu CVD Unit Process", G. W. Rubloff and Soon Cho, Center for Environmentally Benign Semiconductor Manufacturing teleseminar, Oct. 4, 2001.
67. "Energy Usage and Mass Balances in a Dynamic Cu CVD Process Cycle", Wei Lei, Adam Melvin, Soon Cho, and Gary Rubloff, Center for Environmentally Benign Semiconductor Manufacturing teleseminar, Oct. 31, 2002.
68. "In-Situ Metrology: the Path to Real-Time Advanced Process Control", Gary W. Rubloff, Center for Environmentally Benign Semiconductor Manufacturing teleseminar, July 31, 2003.
69. "Monitoring and control of binary gas mixtures from solid phase MOCVD sources using an acoustic sensor", L. Henn-Lecordier, G. Rubloff, and J. Kidder, Center for Environmentally Benign Semiconductor Manufacturing teleseminar, Jan. 8, 2004.
70. "[Chemical Sensing and Advanced Process Control for Semiconductor Nanoprocessing](#)", G. W. Rubloff, Laboratory for Surface Modification, Rutgers University, May 27, 2004.
71. "Chemical Sensing and Chemical Analysis for Nanoprocessing of Materials", G. W. Rubloff, Department of Chemistry/Biochemistry, University of Maryland, October 22, 2004.
72. "Research at the Nano Scale, Impact Far Beyond", G. W. Rubloff, School of Pharmacy, University of Maryland Baltimore, May 25, 2005.
73. "Research at the Nano Scale, Impact Far Beyond", G. W. Rubloff, W. R. Grace, July 14, 2005.
74. "Research at the Nano Scale, Impact Far Beyond", G. W. Rubloff, Northern Virginia Technology Council Nanotech Committee, July 21, 2005.
75. "A Brief Look Across the Nano Spectrum", G. W. Rubloff, Physics Department Colloquium, University of Maryland Baltimore County, Nov. 30, 2005.
76. "BioMicroSystems: Labs and Fabs for Nanotechnology and Nanomanufacturing", Physical Sciences Seminar, IBM Research, Yorktown Heights NY, Jan. 19, 2007.
77. "Visions of Nano and Micro", G. W. Rubloff, FBK-irst Colloquium, Trento, Italy, Oct. 2, 2007.