

Daniel M. Dobkin, Ph.D.

Publications:

Books:

The RF in RFID, Elsevier, September, 2007

RF Engineering for Wireless Networks, Elsevier, 2004

Principles of Chemical Vapor Deposition, with Michael Zuraw, Kluwer, 2003

Technical publications:

"Introduction to RFID" (tutorial presentation), IEEE Radio and Wireless Conference, San Diego, CA, Jan 2009.

"Segmented Magnetic Antennas for Near-field UHF", with Steven Weigand, Microwave Journal, June, 2007

"RFID Thrown for a Loop: Near-field UHF", RFID for Pharmaceuticals, Philadelphia, August 2, 2006

"Multiple RFID Tag Plane Array Effects", with Steven Weigand, IEEE Antennas and Propagation Society Symposium, July, 2006

"Introduction to RFID" (tutorial presentation), IEEE MTT-S, San Francisco, CA, June, 2006

"UHF RFID and Tag Antenna Scattering (part 1)", with Steven Weigand, Microwave Journal, May 2006, p. 170

"Introduction to RFID: History, Technology, and Applications", with Titus Wandinger, High Frequency Electronics, June, 2005, p. 46

"Environmental Effects on RFID Tag Antennas," with Steven Weigand, IEEE MTT Symposium, June 2005, Long Beach, CA, USA, paper TU3A-2

"RFID: The power to transform global business and lifestyles?", RFID Summit, Singapore, November 16, 2004

"The Correlation of Data Throughput with Link Loss for Commercial WLAN Devices", High Frequency Electronics, January 2003, p. 22

"The Hierarchy of Wireless Data Networking", WIC 2002, Ottawa, Canada, October 15-16, 2002

"ISPN" (Integrated Services Practical Network): Why and How WLAN and WAN Will Coexist", WIC 2002, Ottawa, Canada, October 15-16, 2002

"Indoor propagation issues for wireless LANs", RF Design, September 2002, p. 40

"Coherent Optical Receivers for Broadcast Communications Architectures," with G. Klimovitch and D. Kurtz; proceedings of the National Fiber Optic Engineers Conference (NFOEC), September, 2002, Dallas, TX.



"Weigh Amplifier Dynamic Range", with W. Strifler and G. Klimovitch; *Microwaves and RF* December 2001.

"Applying an Electric Field to Control Metals in Furnaces", with I. Rapoport, V. Starov, Y. Raskin and S. Zaidman; *Solid State Technology*, August, 2000, p. 83

"Atmospheric Pressure Inductive Soft Etch for Photoresist Strip", with Simon Selitser: *AVS Microelectronics Conference*, February, 2000

"An Oxygen Plasma Flash Process for the Control of Corrosive Gas Migration in a Semiconductor Wafer Plasma Etch System", with P. Brunemeier, T. Miu, W. Collison, W. Klippert, and C. Vetter; *National Symposium of the American Vacuum Society*, San José, CA, October 20-24 1997

"Ion-Bombardment-Induced Compositional Change in ECR-CVD SiO₂ and SiN:H", with K. Seaward, F. Mertz and K. Nauka; *Proceedings of the Thirteenth International Conference on Chemical Vapor Deposition*, Los Angeles, May 5-10, 1996, p. 523

"Method for Characterization of III-V Epitaxial Structures Incorporating an Etch Stop Layer", with W. Hitchens, C. Lee, C. Dalmacio, S. Snider and R. Remba; *International Conference on GaAs Manufacturing Technology*, San Diego, April 28-May 2, 1996.

"Mechanisms of Deposition of SiO₂ from TEOS and Related Organosilicon Compounds and Ozone", with Simin Mokhtari, Mel Schmidt, Anil Pant, Linda Robinson, and Art Sherman, *J. Electrochem. Soc.* **142** 2332 (1995)

"Profile Simulation Studies of Oxide Deposition from Ozone/TEOS", with J. Li, J. McVittie, J. Ferziger, K. Saraswat and M. Schmidt, presented at the *Electrochemical Society Spring Meeting*, San Francisco, May 24-27, 1994.

"Mechanisms of Deposition of SiO₂ from TEOS and Related Organosilicon Compounds and Ozone", with Simin Mokhtari, Mel Schmidt, Anil Pant, Linda Robinson, and Art Sherman; presented at the *Schumacher CVD Symposium*, San Diego, February 7-8, 1994.

"Deposition of Silicon Dioxide from Hexamethyldisilazane and Ozone", with James Garcia, Wilbur Krusell, Fred Walker, and José Casillas, *Journal of Chemical Vapor Deposition*, January 1993.

"Electrical and Physical Properties of Tantalum Oxide Thin Films Deposited by Low Pressure Chemical Vapor Deposition", with William Hitchens and Wilbur Krusell, *Materials Research Society Fall Meeting*, Boston, November 30 — Dec 4, 1992.

"Kinetics and Uniformity of Deposition of Borophosphosilicate Glass from Silane and Oxygen in a Single-Wafer Reactor", *Journal of the Electrochemical Society* **130** 2573 (1992).

"Harmonic Behavior of MMIC Variable Attenuators"
with David Fisher; *Asia Pacific Microwave Conference*, Tokyo, September 1990.

"A Temperature-Compensated Linearizing Technique for MMIC Attenuators Using GaAs MESFETs as Voltage-Variable Resistors" with David Fisher; *Digest of the IEEE-MTT International Microwave Symposium*, Dallas, June 1990, p. 781.

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"Atmospheric Pressure Chemical Vapor Deposition of Tungsten Silicide"
with Jay Dedontney, Gregory McDaniels and Larry Bartholomew; Journal of the
Electrochemical Society 137 1623 (1990)

"Bias-Stress Stability of GaAs MESFETs"
with Ron Besser and C. Helms; Journal of the Electrochemical Society 136 3478 (1989)

"Reduction of GaAs MESFET Sidegating by UV/Ozone Cleanup Prior to MBE Growth"
with William Hitchens and Paul Brunemeier; Journal of Vacuum Science and Technology B7
680 (1989)

"Monolayer Surface Doping of GaAs from a Plated Zinc Source"
with James Gibbons; Applied Physics Letters 44 884 (1984)

"Thermal Pulse Diffusion of Zn in GaAs from an Elemental Source"
with James Gibbons; Journal of the Electrochemical Society 131 1699 (1984)

"Lift-off Lithography using Low-Frequency Plasma Buffer Layers"
with Brad Cantos and Don Deal; Proceedings of the Fourth Symposium on Plasma Processing.
Ed. G. Mathad, G. Schwartz, and G. Smolinsky, p. 192; The Electrochemical Society, Inc.
(Pennington, N.J.), 1981

"Plasma Formation of Buffer Layers for Multilayer Resist Structures"
with Brad Cantos; IEEE Electron Device Letters EDL2 222 (1981)

"GaAs MESFETs with Non-Alloyed Ohmic Contacts"
with Rick Gold, Yves Nissim and James Gibbons; International Electron Devices Meeting,
Washington, D.C., December 1981

"CW-Laser Assisted Diffusion of Tin in GaAs for Non-Alloyed Ohmic Contacts"
with Yves Nissim, Rick Gold and James Gibbons; Fall Meeting of the Electrochemical Society,
Hollywood, Florida, October, 1980

"Unusual Phenomena in CVD SiO₂ Under Sustained Electron Bombardment"
with Ron Kane; IEEE Transactions on Electron Devices, ED27 1841 (1980)

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US Patents

Joint inventions:

- 6,521,048 Single body injector and deposition chamber
- 6,200,389 Single body injector and deposition chamber
- 6,022,414 Single body injector and method for delivering gases to a surface
- 5,865,657 Fabrication of gated electron-emitting device ...
- 5,304,398 Chemical vapor deposition of silicon dioxide using hexamethyldisilazane

Sole inventor:

- 5,691,642 Method and apparatus for characterizing a plasma using broadband microwave...
- 5,639,343 Method of characterizing group III-V epitaxial semiconductor wafers ...

