Exhibit B

CHANG LIU

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Education

Ph.D.	**California Institute of Technology**, Department of Electrical engineering	1996
M.S.	**California Institute of Technology**, Department of Electrical engineering	1991
B.S.	**Tsinghua University**, Department of Precision Instrument	1990

Appointments

Professor, Mechanical Engineering Department, Northwestern University	2007-present
Professor, Electrical Engineering and Computer Science Department, NU	2007-present
Adjunct professor, College of Engineering, UIUC	2007-present
Adjunct Professor, Bioengineering Dept., UIUC	2006-2007
Associate Professor, Electrical and Computer Engineering Dept., UIUC	2003-2007
Assistant Professor, Electrical and Computer Engineering Dept., UIUC	1997-2003
Adj. Assistant Professor, Mechanical and Industrial Engineering Dept., UIUC	1997-2002
Research associate, Mechanical and industrial engineering department, UIUC	1/1996-1/1997
Graduate research assistant, Electrical Engineering, Caltech	1990- 1996

Teaching Experiences

ME 451, Micromachining
EECS 221, Fundamentals of circuits
UIUC ECE 430, Power electronics
UIUC ECE 340, Solid State Electronics Devices
UIUC ECE 385, Introduction to Micro Electromechanical Devices and Systems
UIUC ECE 205, Introduction to Electrical Engineering
UIUC MIE 213, Thermal Transfer

Honors and Awards

Ou-You Yi Award for Outstanding Young Scholar from China Mainland, 1996
Best contributed paper award, International Conference on Solid State IC Technology, 1998
National Science Foundation, CAREER Award for young investigators, 2000
Univ. Illinois Incomplete List of Teachers Ranked as Excellent, Fall 2001
Inducted to the Univ. Illinois Office of Technology Management Inventor Wall of Fame, 2003
Faculty Associate, the Center for Advanced Studies, UIUC, 2004
College of Engineering Xerox Award for Faculty Research, 2004
Willett Faculty Scholar, 2005

Primary Research Interest

- Biologically inspired sensing and systems – studying biology, advancing engineering.
- Biologically inspired haircell sensors mimicking the haircell neuronal mechanoreceptors.
- Biologically inspired artificial lateral line sensors and underwater applications.
- Microfabrication and MEMS technology.

- Multimodal smart skin for sensing
- Nanocomposite elastomer materials and soft MEMS devices/systems.
- Nanofabrication technology, including arrayed scanning probe nanolithography.
- Applications of nanofabrication technology for sensing and other applications.

Society and Affiliations

Fellow, IEEE
Member, ASME
Associate Editor, IEEE Sensors Journal
Subject Editor, IEEE Journal of Microelectromechanical Systems (JMEMS)
Chairman, IEEE Electron Device Society (EDS) MEMS Area Technical Committee

Book and Book Chapters

1. T. Tsao, F. Jiang, C. Liu, R. Miller, S. Tung, J.B. Huang, B. Gupta, D. Bebcock, C. Lee, Y.C. Tai, C.M. Ho, J. Kim, and R. Goodman, "MEMS based active drag reduction in turbulent boundary layer", Chapter 14, Microengineering Aerospace Systems (Henry Helvajian, Ed.), pp. 553-580, the Aerospace Press, 1999.
2. Chang Liu, "Miniaturization and MEMS technology, in Automation, Miniature Robotics and Sensors for Nondestructive Evaluation and Testing", Yoseph Bar-Cohen, Technical Editor, American Society of Non-destructive Testing (ASNT), 2000.
3. Chang Liu, "Micro and Nano Sensors", in CRC Mechatronics Handbook, Editor: M. Bishop, 2002.
4. Jun Zou, Chang Liu, “Micro actuation”, a chapter in “Microelectromechanics and nanotechnology,” Series editor: Zhaoying Zhou, in press.
5. Chang Liu, “Foundation to MEMS”, Prentice Hall, August 30, 2005, ISBN: 0131472860.

Journal Publications

1. J.B. Huang, S. Tung, C.M. Ho, C. Liu, and Y.C. Tai, "Improved Micro Thermal Shear-Stress Sensor," IEEE Transactions on Instrumentation and Measurement, Vol. 45, No. 2, pp. 570-574, 1996.
2. C. Liu, T. Tsao, and Y.C. Tai, "A High Yield Drying Process for Surface-micromachined Structures Using Magnetostatic Forces," Journal of Sensors and Materials, Vol. 11, No. 2, pp. 71-86, 1998.
3. C. Liu, "Development of Surface Micromachined Magnetic Actuators using Electroplated Permalloy," Journal of Mechatronics, pp.613-633, 1998.
4. C. Liu and R. Gamble, "Mass producible monolithic silicon probes for scanning probe microscopes," J. Sensors and Actuators, A. Physical, Vol. 71/3, pp. 233-237, 1998.
5. C. Liu, J. Huang, Z. Zhu, F. Jiang, S. Tung, Y.C. Tai, and C.M. Ho, "A Micromachined Flow Shear-stress Sensor Based on Thermal Transfer Principles," IEEE Journal of Microelectromechanical Systems, Vol. 8, No. 1, pp.90-99, 1999.
6. C. Liu and Y.C. Tai, "Sealing of micromachined cavities using chemical vapor deposition methods: characterization and optimization," IEEE J. of Microelectromechanical Systems, Vol. 8, No. 2, pp. 135-145, June 1999.
7. C. Liu, T. Tsao, V. Lee, J. Lu, Y. Yi, Y.C. Tai, and C.M. Ho, "Out of plane magnetic actuators with electroplated Permalloy for fluid dynamic control," J. Sensors and Actuators, Vol. 78, Issue 2-3, pp. 190-97, 1999.

8. Y. Yi and C. Liu, "Magnetic Actuation of Hinged Microstructures ", Journal of Microelectromechanical Systems, Vol. 8, No. 1, pp.10-17, March, 1999.
9. Y. Yi and C. Liu, "Assembly of micro optical devices using magnetic actuation," J. Sensors and Actuators, Vol. 78, Issue 2-3, pp. 205-11, 1999.
10. C. Liu and Y. Yi, "Micromachined magnetic actuators using electroplated Permalloy," IEEE Trans. on Magnetics, Vol. 35, No. 3, pp. 1976-85, May, 1999.
11. J. Zou, M. Balberg, C. Byrne, C. Liu, and D. Brady, "Effect of Etch Holes on the Optical Properties of Surface Micromachined Mirrors", Journal of Microelectromechanical Systems, Vol. 8, No. 4, pp. 506-513, December 1999.
12. Z. Zhu and C. Liu, "Simulation of anisotropic crystalline etching using a continuous cellular automata algorithm," Journal Computer Modeling for Engineering and Science, Vol. 1, No. 1, pp. 11-19, 2000.
13. D. Armani and C. Liu, "Microfabrication Technology for Polycaprolactone, A Biodegradable Polymer", J. of Micromechanics and Microengineering, 10, pp. 80-84, 2000.
14. Z. Zhu and C. Liu, "Micromachining process simulation using a continuous cellular automata method," IEEE/ASME Journal of Microelectromechanical Systems, Vol. 9, No. 2, pp. 252-61, 2000.
15. J. Zou, C. Liu, and J. Schutt-aine, "Development of a wide-tuning-range two-parallel-plate tunable capacitor for integrated wireless communication system," Int. Journal RF and Microwave CAE, 11:322-329, 2001.
16. J. Zou, J. Chen, C. Liu, and J. Schutt-Aine, "Plastic Deformation Magnetic Assembly (PDMA) of Out-Of-Plane Microstructures: Technology and Application," IEEE/ASME J. of Microelectromechanical Systems, Vol. 10, No. 2, pp. 302-309, June 2001.
17. S.J. Park, J. Chen, C. Liu, and J.G. Eden, "Arrays of microdischarge devices having 50-100um square pyramidal Si anodes and screen cathodes," Electronics Letters, Vol. 37, No. 3, pp.171-2, Feb 1, 2001.
18. M. Khoo and C. Liu, "Micro magnetic silicone elastomer membrane actuator", J. Sensors and Actuators, Vol. 89, No. 3, pp. 259-266, March, 2001.
19. S.J. Park, J. G. Eden, J. Chen, C. Liu, and J. Ewing, “Arrays of silicon microsidcharge devices with multicomponent dielectrics,” Optics Letters, Vol. 26, No. 22, pp. 1773-1775, November 15, 2001.
20. S.J. Park, J.G. Eden, J. Chen, and C. Liu, "Independently addressable subarrays of silicon microdischarge devices: electrical characteristics of large (30x30) arrays and excitation of a phosphor," Appl. Phys. Lett., Vol. 79, No. 13, pp. 2100-02, 2001.
21. S.J. Park, J. Chen, C. Liu, and J.G. Eden, "Silicon microdischarge devices having inverted pyramidal diodes: fabrication and performance of arrays", Applied Physics Letters, Vol. 78, No. 4, pp 419-421, Jan 22, 2001.
22. S.J. Park, J. Chen, C.J. Wagner, N.P. Ostrom, C. Liu, and J.G. Eden, “Microdischarge arrays: A new family of photonic devices”, IEEE J. Selected Topics in Quantum Electronics, Vol. 8, No. 1, pp. 139-147, 2001.
23. M. Zhang, D. Bullen, S-W Chung, S. Hong, K. S. Ryu, Z. Fan, C. A. Mirkin, and C. Liu, “A MEMS Nanoplotter with High-Density Parallel Dip Pen Nanolithography (DPN) Probe Arrays”, J. of Nanotechnology, Vol. 13, pp. 212-217, April 2002.
24. J. Chen, S. Park, Z. Fan, G. Eden, and C. Liu, "Development and characterization of Micromachined hollow cathode plasma display devices," IEEE/ASME J. of Microelectromechanical Systems, Vol. 11, No. 5, pp. 536-543, October 2002.
25. C. Xu, W. Lemon, and C. Liu, “Design and Fabrication of A High Density Metal Microelectrode Array for Neural Recording", J. Sensors and Actuators, Vol. A 96, Issue 1, pp. 78-85, January 2002.

26. L. Lu, K.S. Ryu, and C. Liu, “A Magnetic Microstirrer and Array for Microfluidic Mixing,” IEEE/ASME J. of Microelectromechanical Systems, Vol. 11, No. 5, pp. 462-469, 2002.
27. Zhifang Fan, Jack Chen, Jun Zou, David Bullen, Chang Liu, and Fred Delcomyn, “Design and Fabrication of Artificial Lateral-Line Flow Sensors”, J. Micromechanics and Microengineering, Vol. 12, No. 5, pp. 655-661, September 2002.
28. J.-C. Langer, J. Zou, C. Liu, and J. T. Bernhard, “Micromachined Reconfigurable out-of-plane microstrip patch antenna using MEMS plastic deformation magnetic actuation.” IEEE Microwave and Wireless Components Letters, Vol. 13, No. 2, pp. 120-122, March 2003.
29. W. Sutomo, X. Wang, D. Bullen, S. K. Braden, C. Liu, "Development of An End-Point Detector for Parylene Deposition Process," IEEE/ASME Journal of MEMS, Vol. 12, No. 1, pp. 64-69, February 2003.
30. J. Chen, Z. Fan, J. Zou, J. Engel, and C. Liu, "Two Dimensional Micromachined Flow Sensor Array for Fluid Mechanics Studies," Journal of Aerospace Engineering, Vol. 16, No. 2, pp. 85-97, pp. 1067-1075, April 2003
31. Jun Zou, Chang Liu, Drew Trainor, Jack Chen, Jose Schutt-Ainé, and Patrick Chapman, "Development of Three-dimensional Inductors using Plastic Deformation Magnetic Assembly (PDMA)," IEEE Transactions on Microwave Theory and Techniques, Vol. 51, No. 4, April 2003.
32. J. Engel, J. Chen, and C. Liu, "Development of Polyimide Flexible Tactile Sensor Skin," Journal of Micromechanics and Microengineering, Vol. 13, No. 3, pp. 359-366, May 2003.
33. J. Zou, D. Bullen, X. Wang, C. Liu, and C. Mirkin, "Conductivity-based Contact Sensing for Probe Arrays in Dip-Pen Nanolithography," Applied Physics Letters, 2003, Vol. 83, No. 3, July 21, 2003.
34. X. Wang, J. Engel, and C. Liu, "Liquid Crystal Polymer (LCP) for MEMS: Processes and Applications," Journal of Micromechanics and Microengineering, Vol. 13, No. 5, pp. 628-633, September 2003.
35. X. Wang, K. Ryu, D. Bullen, J. Zou, H. Zhang, C. Liu, and C. A. Mirkin, "Scanning Probe Contact Printing," Langmuir, Vol. 19, No. 21, pp. 8951-8955, October 14, 2003.
36. J. Chen and C. Liu, "Development and Characterization of Surface Micromachined, Out-Of-Plane Hot-Wire Anemometer," IEEE/ASME Journal of Microelectromechanical Systems, Vol. 12, No. 6, pp. 979-988, 2003.
37. J. Chen, J. Zou, C. Liu, J. Schutt-aine, S.M. Kang, “Design and modeling of a micromachined high-Q tunable capacitor with large tuning range and a vertical planar inductor,” IEEE Transaction on Electron Devices, Vol. 50, No. 3, pp. 730-739, March 2003.
38. J. Zou, X. Wang, D. Bullen, K. Ryu, C. Liu, and C. A. Mirkin, "A Mould-and-Transfer Technology for Fabricating Scanning Probe Microscopy (SPM) Probes," Journal of Micromechanics and Microengineering, Vol. 14, No. 2, pp. 204-211, February 2004.
39. D. Bullen, X. Wang, J. Zou, S-W Chung, C. A. Mirkin, C. Liu, "Design, Fabrication, and Characterization of Thermally Actuated Probe Arrays for Dip Pen Nanolithography," IEEE/ASME Journal of Microelectromechanical Systems, vol. 13, no. 4, pp. 594-602, August 2004.
40. D. Bullen, S.-W. Chung, X. Wang, J. Zou, C. A. Mirkin, and C. Liu, "Parallel dip-pen nanolithography with arrays of individually addressable cantilevers," Applied Physics Letters, vol. 84, pp. 789-791, 2004.
41. Z. Fan, J. Engel, J. Chen, and C. Liu, "Parylene Surface Micromachined Membranes for Sensor Applications," IEEE/ASME Journal of Microelectromechanical Systems, 13(3), pp. 484-490, 2004.
42. K. Ryu, X. Wang, K. Shaikh and C. Liu, "A Method for Precision Patterning of Silcone Elastomer and Its Applications," IEEE/ASME Journal of Microelectromechanical Systems, Vol. 13, No. 4, pp. 568-575, August 2004.

43. K. Ryu, X. Wang, K. Shaikh, D. Bullen, E. Goluch, J. Zou, C. Liu and C. Mirkin, "Integrated Microfluidic Inking Chip for Scanning Probe Nanolithography," Applied Physics Letters, vol. 85, no. 1, page 136-138, 5 July 2004.
44. S.J. Park, J.G. Eden, J. Chen, C. Liu, "Microdischarge devices with 10 x 30 micrometer square silicon cathode cavities: pd scaling and production of the XeO excimer", Applied Physics Letters, Vol. 85, No. 21, pp. 4869-4871, 2004.
45. Jinghong Chen, Sung-Mo Kang, Jun Zou, Chang Liu, Schutt-Aine, and J.E., "Reduced-order modeling of weakly nonlinear MEMS devices with Taylor-series expansion and Arnoldi approach," IEEE/ASME Journal of MEMS, Vol. 13, No. 3, pp. 441-451, 2004.
46. K. Ryu, K. Shaikh, E. Goluch, Z. Fan, C. Liu, "Micro Magnetic Stir-bar Mixer Integrated with Parylene Microfluidic Channels," The Royal Society of Chemistry (RSC) Journal of Lab on a Chip, vol. 4, no. 6, pp. 608-613, November 29, 2004.
47. X. Wang, D. Bullen, J. Zou, C. Liu, and C. Mirkin "A Thermally Actuated Probe Array For Parallel Dip Pen Nanolithography," Journal of Vacuum Science and Technology B, vol. 22, no. 6, pp. 2563-2567, Nov 2004. (Selected for the Nov. 8, 2004 issue of Virtual Journal of Nanoscale Science and Technology, AIP/APS, http://www.vjnano.org).
48. E. Goluch, K. Shaikh, K. Ryu, J. Chen, J. Engel, C. Liu, "A Microfluidic Method for In-Situ Deposition and Precision Patterning of Thin-Film Metal on Curved Surfaces," Applied Physics Letters, vol. 85, no. 16, pp. 3629-3631, October 18, 2004
49. J. Engel, J. Chen, Z. Fan, and C. Liu, "Polymer Micromachined Multimodal Tactile Sensors," Sensors and Actuators A: Physical, vol. 117, no. 1, pp. 50-61, January 3, 2005.
50. Rozhok, Sergey; Kwang-Fu Shen, Clifton; Littler, Pey-Lih Ho; Fan, Zhifang; Liu, Chang; Mirkin, Chad A.; Holz, Richard C. "Methods for Fabricating Microarrays of Motile Bacteria" Small, 2005, 1, Volume 1, No. 4, pp. 439-444, January 2005.
51. Sung-Hoon Kim, Jonathan Engel, Chang Liu, and Douglas L. Jones, "Texture classification using a polymer-based MEMS tactile sensor" Journal of Micromechanics and Microengineering, 15 (2005) 912–920.
52. Lee, S., Loth, E., and Liu, C."Micro-bubbles generated on electrolytic arrays and matrices and released in a water channel", Experiments in Fluids， Vol. 38, No. 5, pp. 672-682, May 2005.
53. Surya Musunuri, Patrick Chapman, Jun Zou and Chang Liu, "Design Issues for Monolithic DC-DC Converters" IEEE Transactions on Power Electronics, vol. 20, no. 3, pp 639-649, May 2005.
54. S. Lee, W. Sutomo, C. Liu and E. Loth, "Micro-fabricated electrolytic micro-bubblers" International Journal of Multiphase flow, vol. 31, no. 6, pp 706-722, June 2005.
55. Kashan A. Shaikh, Kee Suk Ryu, Edgar D. Goluch, Jwa-Min Nam, Juewen Liu, C. Shad Thaxton, Thomas N. Chiesl, Annelise E. Barron, Yi Lu, Chad A. Mirkin, Chang Liu, "A Modular Microfluidic Architecture for Integrated Biochemical Analysis," PNAS, vol. 102, no. 28, pp. 9745-9750, July 2005.
56. X. Wang, L. Vincent, D. Bullen, J. Zou, and C. Liu, "Scanning Probe Lithography Tips with Spring-on-Tip Designs: Analysis, Fabrication, and Testing", Applied Physics Letters, vol. 87, no. 5, p. 054102, Aug 2005 (Selected for the August 8, 2005 issue of Virtual Journal of Nanoscale Science & Technology, AIP/APS, http://www.vjnano.org)
57. K. Salaita, S. Lee, X. Wang, L. Huang, T. Dellinger, C. Liu, and C. Mirkin, "Sub-100 nm, Centimeter-Scale, Parallel Dip-Pen Nanolithography", Small, Vol. 1, No. 10, pp. 940-945, Oct 2005.
58. Xuefeng Wang and Chang Liu, "Multifunctional probe array for nano patterning and imaging," Nano Letters, Vol. 5, No. 10, pp. 1867-1872, Oct 2005.
59. D. Bullen and C. Liu, "Electrostatically actuated dip pen nanolithography probe arrays," Sensors and Actuators A: Physical, In Press.
60. J. Engel, J. Chen, C. Liu, D. Bullen, "Polyurethane rubber all-polymer artificial hair cell sensor", IEEE/ASME Journal of MEMS, Vol. 15, No. 4, pp. 729-736, 2006.

61. Kee Suk Ryu, Kashan Shaikh, Edgar Goluch, and Chang Liu, "A Two-Terminal Longitudinal Hotwire Sensor for Monitoring the Position and Speed of Advancing Liquid Fronts in Microfluidic Channels" Appl. Phys. Let., accepted.
62. Tim K Hossain, I. Adesida, C. Liu, "Fabrication of suspended micromechanical structures from bulk 6H-SiC using ICP-RIE system", Journal of Micromechanics and Microengineering, accepted.
63. Saunvit D Pandya, Yingchen Yang, Douglas Jones, Jonathan M Engel, and Chang Liu, "Multisensor Processing Algorithms for Underwater Dipole Localization and Tracking using MEMS Artificial Lateral Line Sensors" EURASIP Journal on Applied Signal Processing, (Special issue on multi sensor processing for signal extraction and applications"
64. Thomas N. Chiesl, Karl. W. Putz, Meena Babu, Patrick Mathias, Kashan A. Shaikh, Edgar D. Goluch, Chang Liu, and Annelise Barron, "Self-associating block copolymer networks for microchip electrophoresis provides enhanced DNA separation via "inchworm" chain dynamics" Analytical Chemistry, 78(13), pp. 4406-4415, 2006.
65. Edgar D. Golucha, Jwa-Min Namb, Dimitra G. Georganopouloub, Thomas N. Chieslc, Kashan A. Shaikha, Kee S. Ryua, Annelise E. Barronc, Chad Mirkinb and Chang Liu, "A Bio-Barcode Assay for On-Chip Attomolar-Sensitivity Protein Detection," ROC Lab on chip, accepted.
66. Khalid Salaita, Yuhuang Wang, Joseph Fragala, Rafael A. Vega, Chang Liu, and Chad A. Mirkin, "Massively parallel dip-pen nanolithography with 55,000-pen two dimensional arrays", Angewandte Chemie, accepted.
67. Shifeng Li, Kashan Shaikh, Sandra Szegedi, Edgar Goluch, and Chang Liu, "A Micromachined Inking Chip for Scanning Probe Nanolithography Using Local Thermal Vapor Inking Method", Applied Physics Lett., Vol. 89, 2006..
68. Sergey Rozhok, Zhifang Fan, Chang Liu, Chad A. Mirkin, and Richard C. Holz, "Fabrication of motile bacterial cells in a pre-aligned holed microarray," Langmuir, accepted.
69. Jonathan Engel, Chang Liu, "Design rules for enhancing strain sensitivity of metal strain gauges on microfabricated polymer structures," Applied Physics Letters, accepted.
70. S. Li and C. Liu, "MEMS arrayed scanning probes for soft nanolithography", Electrochemical Society Transactions, 3(10), pp. 463-472, 2006.
71. Jonathan Engel, Chang Liu, "Creation of a metallic micromachined chair mail fabric," Journal of Micromechanics and Microengineering, in press.
72. Chang Liu, "Micromachined biomimetic artificial haircell sensors", Journal of Bioinspiration and Biomimetics, accepted.
73. Nannan Chen, Craig Tucker, Jonathan Engel, Yingchen Yang, Saunvit Pandya, Chang Liu, "Design and Characterization of Artificial Haircell Sensor for Flow Sensing With Ultrahigh Velocity and Angular Sensitivity," IEEE/ASME Journal of Microelectromechanical Systems, Vol. 16, No. 5, pp. 999-1014, 2007.
74. S. Peleshanko, M. D. Julian, M. Ornatska, M. E. McConney, M. C. LeMieux, N. Chen, C. Tucker, Y. Yang, C. Liu, J. A. C. Humphrey, V. V. Tsukruk, "**Hydrogel-Encapsulated Microfabricated Haircells Mimicking Fish Cupula Neuromast," Advanced Materials, Vol. 19, No. 19, pp. 2903-2909.**
75. Chang Liu, "Micromachined biomimetic artificial haircell sensors", Bioinspiration and Biomimetics, (Bioinspir. Biomim), 2, S162-S169
76. Chang Liu, "recent developments of MEMS", Advanced Materials, Vol. 19, No. 22, pp. 3783-3790, 2007.
77. Jonathan Engel, Chang Liu, "Creation of a metallic micromachined chain mail fabric" Journal of Micromechanics and Microengineering, Vol. 17, pp. 551-556.
78. Shifeng Li, Timothy M. Dellinger, Qin Wang, Sandra Szegedi, Chang Liu, "Pneumatically actuated elastomeric device for nanoscale surface patterning," APL, 91, p. 023109, 2007.
79. Shifeng Li, Sandra Szegedi, Edgar Goluch, Chang Liu, "Dip Pen Nanolithography Functionalized Electrical Gaps for Multiplexed DNA Detection", Analytical Chemistry, accepted.
80. Edgar Goluch, Andrew Shaw, Steve Sligar, Chang Liu, "Microfluidic Patterning of Nanodisc Lipid Bilayers and Multiplexed Analysis of Protein Interaction", LOC, accepted.

81. Milan Mrksich group collaborative paper.
82. Kashan Shaikh, Chang Liu, “Development of a Latchable Microvalve Employing a Low Melting Temperature Metal Alloy”, Journal of MEMS, accepted.

Publications in Peer-Reviewed International Conferences

1. C. Liu, T. Tsao, Y.C. Tai, and C.M. Ho, *"Surface Micro-machined Magnetic Actuators,"* Proceedings, *IEEE Workshop on Micro-Electro-Mechanical-Systems*, MEMS'94, Oiso, Japan, pp. 57-62, 1994.
2. C. Liu and Y.C. Tai, *"Studies on the Sealing of Surface Micro-machined Cavities by Using Chemical Vapor Deposition Methods," 5th IEEE Solid-State Sensor and Actuator Workshop*, Hilton Head Island, SC, pp. 103-106, 1994.
3. C. Liu, Y.C. Tai, J.B. Huang, and C.M. Ho, *"Surface Micro-machined Thermal Shear-Stress Sensor," First ASME Symposium on Application of Micro-Fabrication to Fluid Mechanics*, Chicago, IL, pp. 9-15, November 1994.
4. T. Tsao, C. Liu, Y.C. Tai, and C.M. Ho, *"Micro Magnetic Actuators for Active Fluid Control," First ASME Symposium on Application of Micro-Fabrication to Fluid Mechanics*, Chicago, IL, pp. 31-38, 1994.
5. C. Liu, T. Tsao, Y.C. Tai, J. Leu, C.M. Ho, W.L. Tang, and D.K. Miu, *"Out-Of-Plane Permalloy Magnetic Actuators," IEEE Workshop on Micro-Electro-Mechanical Systems*, MEMS '95, the Netherlands, pp. 7-12, 1995.
6. C. Liu, T. Tsao, P. Will, Y.C. Tai, and W.H. Liu, *"A Micromachined Permalloy Magnetic Actuator Array for Micro Robotics Assembly Systems," Proceedings of the 1995 International Conference on Solid-State Sensors and Actuators*, Transducer '95, Sweden, 1995.
7. G.B. Lee, C.M. Ho, F.K. Jiang, C. Liu, T. Tsao, and Y.C. Tai, *"Distributed Flow Control by MEMS," ASME Annual Meeting*, 1996.
8. C. Liu, T. Tsao, and Y.C. Tai, "A High Yield Drying/Release Process for Surface Micromachined Polysilicon Structures,"*1997 Int. Conf. on Solid-state Sensors and Actuators* (Transducers’97), Chicago, IL, pp. 241-244, June 1997.
9. I. Vasic, C. Liu, F. A. Khan, M. A. Shannon, and M. Q. Brewster, "HTPB Melt Layer Viscosity Using Plate Wave Microsensors," *33rd JANNAF Combustion Meeting*, Monterey, CA, 4-7 November 1996.
10. C. Liu, M. A. Shannon, and I. Adesida, "Side Wall Definition for Through-wafer Interconnects using 45 degree Mirror Surfaces," Late News Session Supplemental Digest, *IEEE Solid State Sensor and Actuator Workshop*, Hilton Head, SC, pp. 25-26, 1996.
11. C. Liu, "Integration of a MEMS education curriculum with interdisciplinary research," *12th University/Government/Industry microelectronics symposium*, pp. 137-141, 1997.
12. C. Liu, T. Tsao, and Y.C. Tai, "A High Yield Drying/Release Process for Surface Micromachined Polysilicon Structures," *Int. Conf. on Solid-state Sensors and Actuators*, Transducer'97, Chicago, pp. 241-244, IL, June 1997.
13. Liu, "Through-wafer electrical interconnects by sidewall photo-lithography patterning," *International Measurement Technology Conference*, St. Paul, MN, pp. 1402-1405, May, 1998.
14. C. Liu, "Silicon micromachined magnetic actuators for interaction with strong and dynamic air flow," *U.S. National Congress of Applied Mechanics*, Florida, USA, June 1998.
15. Y. Yi and C. Liu, "Mechanically stable micro assembly using magnetostatic actuation", *Int. Conf. on Solid-state IC Technology, ICSICT 98*, Beijing, Oct 1998. (Winner, Conference Best Paper Award sponsored by the *Applied Materials* Inc.)
16. Y. Yi and C. Liu, "Parallel assembly of hinged microstructures using magnetic actuation," *IEEE solid-state sensors and actuators workshop*, Hilton Head Island, SC, pp.269-272, 1998.

17. Z. Zhu and C. Liu, "Anisotropic Crystalline Etching Simulation using a Continuous Cellular Automata Algorithm," *ASME Symposium on Computer Aided Simulation of MEMS*, Anaheim, CA, Nov 1998.
18. Y. Yi and C. Liu, "High-Yield Assembly of Hinged 3D Optical MEMS Devices Using Magnetic Actuation", *SPIE Micromachining and Microfabrication* Symposium, Santa Clara, CA, Sep 1998.
19. Jun Zou, Colin Byrne, Chang Liu, and David Brady, "Optical Properties of Micromachined Polysilicon Reflective Surfaces with Etching Holes", *SPIE Micromachining and Microfabrication Symposium*, Santa Clara, CA, Sep 1998.
20. B. Choi, M. Ma, C. White, and C. Liu, "Electrolytic and thermal bubble generation using AC inductive powering," *1999 International Conference on Solid-State Sensors and Actuators*, Transducers'99, Sendai, Japan, 1999.
21. Y. Yi and C. Liu, "Parallel assembly of micro optical components", *1999 International Conference on Solid-State Sensors and Actuators*, Transducers'99, Sendai, Japan, 1999.
22. D. Armani and C. Liu, "Re-configurable Fluid Circuits By PDMS Elastomer Micromachining", *12th International Conference on MEMS*, MEMS 99, pp.222-227, Orland, FL, 1999.
23. G. Barbastathis, M. Balberg, D. J. Brady, B. Choi, and C. Liu, "Holographic 3D imaging of microstructures," *SPIE: The international symposium on optical science, engineering and instrumentation*, Denver, Colorado, pp. 3801-23, July 1999.
24. J. Bernhard, N.W. Chen, R. Clark, M. Feng, C. Liu, P. Mayes, and E. Michielssen, "Mechanically conformal and electronically reconfigurable apertures using low voltage MEMS and flexible membranes for space based radar applications," *2000 IEEE AP-S (Antenna Propagation) International Symposium*, Salt Lake City, Utah, July 16-21, 2000.
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59. X. Wang, K. Ryu, and C. Liu, "Scanning Probe with Elastomeric (PDMS) Tip for Tip-Based Microcontact Printing," The 12th International Conference on Solid-State Sensors, Actuators and Microsystems, Boston, MA, 2003.
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63. K. S. Ryu, K. Shaikh, and C. Liu, "Micro Magnetic Stir-bars Integrated In Parylene Surface-micromachined Channels For Mixing and Pumping," presented at The Seventh International Conference on Miniaturized Chemical and Biochemical Analysis Systems (microTAS 2003), Squaw Valley, California USA, 2003.
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65. K. Shaikh, K. S. Ryu, Z. Fan, and C. Liu, "Fabrication of Through-wafer Fluid Interconnects with Low Dead Volume and Integrated Back-Plane Fluid Jumpers," presented at The Seventh International Conference on Miniaturized Chemical and Biochemical Analysis Systems (microTAS 2003), Squaw Valley, California USA, 2003.

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69. X. Wang, L. Vincent, M. Yu, Y. Huang, and C. Liu, "A Thermally Actuated Three-Probe Nanomanipulator For Efficient Handling of Individual Nanostructures," 17th IEEE International Conference on Micro Electro Mechanical Systems, MEMS 2004, Maastricht, Netherlands, pp. 442-445, 25-29 January 2004.
70. K. Ryu, X. Wang, K. Shaikh, E. Goluch, D. Bullen, J. Zou, C. Liu, "An Integrated Microfluidic Inking Chip for SPM Nanolithography," The 11th Solid State Sensor, Actuator, and Microsystems Workshop (Hilton Head 2004), Hilton Head Island, SC, 6-10 June 2004.
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72. J. Chen, J. Engel, M. Chang, and C. Liu, “3D out of plane flow sensor array with integrated circuits,” Eurosensors, XVI, Rome, 2004.
73. C. Liu, “Micro machined tools for nano patterning,” 2004 Gordon Research Conference on Nanostructure fabrication, Tilton, NH July 18-23, 2004.
74. J. Engel, Z. Fan, L. Zhao, J. Chen, and C. Liu, “Smart brick – a low cost, modular wireless sensor for civil structure monitoring,” International Conference on Computing, Communications, and Control technologies, (CCCT 2004), Austin, TX, August 14-17, 2004.
75. X. Wang, L. Vincent, M. Yu, Y. Huang, and C. Liu, "A Thermally Actuated Three-Probe Nanomanipulator For Efficient Handling of Individual Nanostructures," 17th IEEE International Conference on Micro Electro Mechanical Systems, MEMS 2004, Maastricht, Netherlands, pp. 442-445, 25-29 January 2004.
76. Kashan Shaikh, Kee Ryu, Edgar Goluch, Patrick Mathias, Chang Liu, “Technology Development for Automated, Portable Lab-on-Chip for Early Cancer Detection”, Gordon Conference on New Frontiers for Early Cancer Detection, January 17-21, Santa Ynez, CA, 2005.
77. J. Engel, J. Chen, D. Bullen, and C. Liu, “Polyurethane Rubber as a MEMS Material: Characterization and Demonstration of an All-Polymer Two-Axis Artificial Haircell Flow Sensor,” 18th IEEE International Conference on Micro Electro Mechanical Systems, MEMS 2005, Miami Beach, FL USA, January 2005.
78. J. Chen, J. Engel, N. Chen, and C. Liu, “A Monolithic Integrated Array of Out-of-Plane Hot-Wire Flow Sensors and Demonstration of Boundary-Layer Flow Imaging,” 18th IEEE International Conference on Micro Electro Mechanical Systems, MEMS 2005, Miami Beach, FL USA, January 2005.
79. E. Goluch, J.-M. Nam, T. Chiesl, K. Shaikh, K. Ryu, A. Barron, C. Mirkin, C. Liu, "A Microfluidic Chip for Bio-Bar-Code-Based Detection of Proteins," The American Institute of Chemical Engineers (AIChE) 2004 Annual Meeting, Austin, TX USA, November 7-12, 2004.
80. E. Goluch, K. Shaikh, K. Ryu, J. Chen, J. Engel, C. Liu, "A Microfluidic Method for Sensor Fabrication on Curved Surfaces," The American Institute of Chemical Engineers (AIChE) 2004 Annual Meeting, Austin, TX USA, November 7-12, 2004.
81. C. Liu, “Microfluid chip for cancer detection,” poster presentation at the Gordon Conference on New Frontiers in Cancer Detection and Diagnosis, Santa Ynez, CA, January 16-21, 2005.

82. J. Chen, J. Engel, N. Chen, and C. Liu, “A Monolithic Integrated Array of Out-of-Plane Hot-Wire Flow Sensors and Demonstration of Boundary-Layer Flow Imaging,” 18th IEEE International Conference on Micro Electro Mechanical Systems, MEMS 2005, Miami Beach, FL USA, January 2005
83. J. Engel, J. Chen, D. Bullen, and C. Liu, “Polyurethane Rubber as a MEMS Material: Characterization and Demonstration of an All-Polymer Two-Axis Artificial Haircell Flow Sensor,” 18th IEEE International Conference on Micro Electro Mechanical Systems, MEMS 2005, Miami Beach, FL USA, January 2005.
84. Chang Liu, "Progress in MEMS and Micro Systems Research," IMAPS/ACerS 1st International Conference and Exhibition on Ceramic Interconnect and Ceramic Microsystems Technologies (CICMT), Baltimore Marriott Waterfront Hotel, Baltimore, MD, USA, April 10-13, 2005.
85. Xuefeng (Danny) Wang, Jun Zou, David Bullen, Timothy Dellinger, Kee Ryu and Chang Liu, "MEMS for Nanotechnology Applications - Nanopatterning and Nanomanipulation," China International Conference on Nanoscience & Technology (ChinaNANO2005), Beijing, China, June 9-11, 2005.
86. K. Ryu, K. Shaikh, E. Goluch, P. Mathias, and C. Liu, "A Simple Two Terminal Longitudinal Hotwire Sensor for Monitoring the Position and Speed of Advancing Liquid Fronts In Micro Channels," The Ninth International Conference on Miniaturized Systems for Chemistry and Life Sciences (microTAS 2005), Boston, Massachusetts, 9-13 Oct 2005, accepted
87. K. Ryu, X. Wang, K. Shaikh, E. Goluch, P. Mathias, and C. Liu, "Design And Prototyping Of A Surface Micromachined Parylene Microvalve with Hybrid Actuation Scheme: On-Chip Thermopneumatic Initiation and Electrostatic Latching," The Ninth International Conference on Miniaturized Systems for Chemistry and Life Sciences (microTAS 2005), Boston, Massachusetts, 9-13 Oct 2005, accepted
88. E. Goluch, K. Shaikh, K. Ryu, J. Chen, J. Engel, and C. Liu, “Deposition and Patterning of Thin-Film Materials on Curved Surfaces using Microfluidic Methods,” The Ninth International Conference on Miniaturized Systems for Chemistry and Life Sciences (microTAS 2005), Boston , Massachusetts , 9-13 Oct 2005, accepted
89. E. Goluch, D. Georganopoulou, S. Stoeva, J.-M. Nam, K. Shaikh, K. Ryu, T. Chiesl, A. Barron, C. Mirkin and C. Liu, “Optimization of a Microfluidic Chip for the Biobarcode Assay,” The Ninth International Conference on Miniaturized Systems for Chemistry and Life Sciences (microTAS 2005), Boston , Massachusetts , 9-13 Oct 2005, accepted
90. E. Goluch, D. Georganopoulou, S. Stoeva, J.-M. Nam , K. Shaikh, K. Ryu, T. Chiesl, A. Barron, C. Mirkin and C. Liu, “Development and Optimization of a Lab-on-a-chip Device for Multiplexed Ultra-Sensitive Detection of Proteins,” The American Institute of Chemical Engineers (AIChE) 2005 Annual Meeting, Cincinnati, OH USA, October 30-November 4, 2005
91. K. Ryu, K. Shaikh, E. Goluch, P. Mathias, and C. Liu, "Two-Terminal Longitudinal Hotwire Sensor for In-Line Monitoring of Sub-Nanoliter Volume in Microfluidic Channels," The 4th IEEE International Conference on Sensors, Irvine, California, 31 Oct- 1 Nov, 2005, accepted
92. Saunvit Pandya, Jonathan Engel, Jack Chen, Zhifang Fan, and Chang Liu, "CORAL: Miniature Acoustic Communication Subsystem Architecture for Underwater Wireless Sensor Networks," The 4th IEEE International Conference on Sensors, Irvine, California, 31 Oct- 1 Nov, 2005, accepted
93. Nannan Chen, Jonathan Engel, Jack Chen, Zhifang Fan, Chang Liu, "Micromachined Thermal Imaging Mesh for Conformal Sensing System," The 4th IEEE International Conference on Sensors, Irvine, California, 31 Oct- 1 Nov, 2005, accepted
94. Jonathan Engel, Jack Chen, Nannan Chen, Chang Liu, "Development and Characterization of an Artificial Hair Cell Based on Polyurethane Elastomer and Force Sensitive Resistors," The 4th IEEE International Conference on Sensors, Irvine, California, 31 Oct- 1 Nov, 2005, accepted.

95. Jonathan Engel, Jack Chen, Nannan Chen, Saunvit Pandya, Chang Liu, "Multi-Walled Carbon Nanotube Filled Conductive Elastomers: Materials and Application to Micro Transducers," MEMS 2006 Conference, Istanbul, Turkey , January 22 - 26, 2006, accepted
96. Jack Chen, Jonathan Engel, Nannan Chen, Saunvit Pandya, Sheryl Coombs, and Chang Liu, "Artificial Lateral Line and Hydrodynamic Object Tracking," MEMS 2006 Conference, Istanbul, Turkey , January 22 - 26, 2006, accepted
97. N. Chen, J. Engel, S. Pandya, and C. Liu, "Flexible Skin With Twoaxis Bending Capability Made Using Weavingbylithography Fabrication Method," MEMS 2006 Conference, Istanbul, Turkey , January 22 - 26, 2006, accepted.

Software

Zhu and C. Liu, software titled “Anisotropic Crystalline Etching Simulation (ACES) software”. This free-ware software title is available on-line at http://galaxy.micro.uiuc.edu/research/completed/aces/index.html. It has been downloaded more than by more than 1000 distinct users from academia, industry, and military since it was published in 1998.
The MASS Group has recently developed modular microfluidic architecture for building custom lab-on-a-chip systems.

Invited Talks

1. IIT ECE Distinguished Speaker Seminar Series, Illinois Institute of Technology, December 2000.
2. Invited seminar titled "Application of Micro Electromechanical Systems (MEMS) to Biological and Medical Research," Northern Illinois University, Department of Biological Sciences.
3. C. Liu, "A magnetic flexible membrane actuator for micro fluid pumping (Invited)", Sixth International Symposium on Magnetic Materials, Processes and Devices, a Symposium at the 198th Meeting of the Electrochemical Society, Oct 22-27, 2000, Phoenix, Arizona.
4. Invited talk, “Magnetic MEMS for RF communications, sensors and microfluidics”, NSF Education/Research Center for Wireless Integrated Microsystems, University of Michigan, Ann Arbor, MI, October 9, 2001.
5. Invited Seminar, "Underwater Biomimetic Sensors", MIT Sea Grant Program and the Ocean Engineering Department, Cambridge, MA, February 19, 2002.
6. Invited speaker, “Case Studies for Micro Electromechanical Systems”, 2002 Summer School on Computational Material Science titled “Computational approaches for simulation of electron devices and MEMS”, Champaign, IL, May 21-28, 2002.
7. Invited seminar speaker, “Micromachined tweezers for micro and nanoscale manipulations”, International Conference on Robotics and Automation (ICRA), Washington D.C., May 12, 2002.
8. Invited short course, “Applications of MEMS in Fluid Mechanics and Aerospace Industry,” AEROMEMS workshop, the Ministry of Education, Taipei, Taiwan, 2002.
9. Invited talk, “MEMS for Certain Nanotechnology Applications (M4N)“, Chemistry Division, Argonne National Laboratory, July 17, 2003.
10. Invited talk, “Polymer micromachining and applications in sensors, microfluidics, and nanotechnology “, American Chemistry Society Annual Meeting, New York City, NY, Sept 7, 2003.
11. Invited talk, “Micro Integrated Sensors Research at the University of Illinois”, Sensors Expo, Anaheim, CA, (Invited by James Wiczer, Sensor Synergy Co.) September 23, 2003.
12. Invited talk, “MEMS Smart Skin for Tactile and Flow Sensing”, BioEngineering Department, University of California at Irvine, September 24, 2003.

13. Invited talk, “MEMS Smart Skin for Tactile and Flow Sensing”, EE Department, Caltech, Pasadena, CA, September 24, 2003.
14. Invited talk, Ceramics Seminar, “Materials and Fabrication Issues of Micromachining and MEMS”, Material Science and Engineering Department, University of Illinois at Urbana-Champaign, Urbana, IL, October 9, 2003.
15. Invited talk, “Sensitive Multimodal Skin as a Sensor Network”, Computer Systems Laboratory Seminar, University of Illinois, October 2003.
16. Invited talk, “MEMS Applications in Sensors, Microfluidics, and Nanotechnology “, Global Research Center, GE Corporation, November 11, Albany, NY, 2003.
17. Frontier of Nanotechnology Seminar, “Microengineering for nanotechnology,” Institute for Nanotechnology, Northwestern University, May 26, 2004.
18. Gordon Conference on Nanostructures Manufacturing, “MEMS tools for nanolithography,” Tilton School, NH, July 2004.
19. Joint NSF/DARPA Workshop on Direct Write Technologies, June 27-July 1, 2004.
20. Invited speaker, “MEMS research at the interface of sensors, nanotech, and microfluidics”, Intel Research, Santa Clara, CA, September 2, 2004.
21. Invited speaker, “Microfabrication technology,” Mechanical Engineering, Stanford University, Palo Alto, CA, September 3, 2004.
22. Invited speaker, “Micromachining Technology for Nanolithography, Sensors, and Microfluidics,” IBM Almaden Research Center, San Jose, CA, September 4, 2004.
23. Invited talk, “Three dimensional assembly microfabrication process and applications in sensors,” Seoul National University, January 6, 2005.
24. Invited shortcourse, “Polymer sensors for bio and robotics applications,” Seoul National University, January 7, 2005.
25. Invited talk, “Smart Brick Technology for Building and Construction Industry”, MPCX conference (Trade Association of Ceramics and Concrets), Indianapolis, February 11, 2005
26. Invited talk, “MEMS research on sensors and microfluidics”, Webster Center for Science and Technology (WCST), Xerox Corporation, March 03, 2005. Host: Charles Duke, VP and Senior Fellow of Xerox
27. Invited talk, “Advanced Nano Lithography Tools Based on MEMS Technology”, MANTL Nanotechnology Workshop, May 5, 6, 2005
28. Invited talk, “Progress in MEMS and Micro Systems Research,” 1st AcerS/IMPAS (American Ceramics Society) International Conference and Exhibition on Ceramic Interconnect and Ceramic Microsystems Technology (CICMT), Baltimore Marriott Waterfront Hotel, Baltimore, MD, USA, April 110-13
29. Invited talk, “MEMS for nanotechnology applications – nanopatterning and nanomanipulation,” China International Conference on Nanoscience and Technology (ChinaNano2005), Beijing International Convention Center, Beijing, China, June 9-11, 2005
30. Invited talk, “Biomimetic artificial haircell sensors for sensor skin applications,” Institute for Cell Mimetic Space Exploration, UCLA, April 26, 2005
31. Invited talk, “Advanced nanolithography tools based on MEMS technology”, MNTL/CNST Nanotechnology Workshop, May 5-6, 2005, Urbana, IL
32. Invited talk, “Hybrid Polymer Microfabrication and Applications in Sensors and Nanotechnology”, Nano Seminar, Mechanical Engineering, University of California at Berkeley, May 12, 2005
33. Invited talk, "Artificial Haircell Sensors and Sensor Skin Based on Biological Inspirations" International Conference on Bio-Nano-Information Fusion, Marina del Rey, CA, USA, July 20-22, 2005
34. Invited talk, Physics Colloquium, “Polymer-MEMS Applications in Nanotechnology and Sensors”, IUPUI (Indiana University Purdue University Indianapolis), Sept 22, 2005.

35. Invited talk, 9th Nano Engineering and Micro Systems Technology Conference, “Polymer MEMS applications in Nanotechnology, Biodetection, and Sensors”, Tainan, Taiwan, November 11, 2005.
36. Invited talk, “Hybrid Polymer Microfabrication and Applications in Sensors and Nanotechnology“ Boeing Company Distinguished Researcher and Scholar Seminar, Huntington Beach, California, Nov. 1, 2005.
37. Invited talk, “Artificial haircell sensors: development and applications”, Center for Solid-State Electronics Research, Arizona State University, January 23, 2006.
38. Invited talk, “Biologically Inspired Sensors – a new face of sensing”, GE Global Research Center, New York, February 10, 2006.
39. Invited talk, “Overview of Research at the Micro And Nano Science and Systems Group”, US Army Construction Engineering Research Laboratory, April 19, 2006.
40. Invited planetary speaker, Biomimetic Artificial Haircell Sensors: Designs, Materials, and Applications, the 3rd International Workshop on Advanced Smart Materials and Smart Structures Technology, Lake Tahoe, NV, May 29-30, 2006.
41. Invited talk, Multifunctional Probe and Local Vapor Inking Chip for Scanning Probe Nanolithography, IEEE Nano 2007, Cincinnati, OH, July 18, 2006.
42. Invited talk, Engineering across nano-micro-macro scales for applications in bioinspired sensing, Berkeley Sensors and Actuators Center, August 7, 2006.
43. Invited session chair, “Seeing at the nanoscale V conference”, June 24-27, Santa Barbara, CA, 2006.
44. Invited plenary talk, “Bioinspired Sensors,” Eurosensors 2008, Germany, September 2008.

Media Coverage

1. Research/Researchers news section, "Magnetic actuation folds microparts into 3D structures", MRS Bulletin, June 2000, Vol. 25, No. 7.
2. "Illinois researcher develops magnetic actuation technique," Journal of Materials (JOM), a publication of TMS, July 2000.
3. "Biodegradable MEMS", Physics World, Vol. 13, No. 4, April 2000.
4. "Hairy space probes", New Scientist, pp. 30-33, September 9, 2000.
5. "Magnetic parallel assembly improves 3D processing", Semiconductor International, Vol. 23, No. 6, June 2000.
6. "Magnetic actuation enables three-dimensional MEMS", EE Times, May 16, 2000.
7. "Magnets build tiny machines", Vacuum Solutions, Issue 16, July/August 2000.
8. "Computers grow hair to become smarter", Science and Technology section, Business Week, 5/2000.
9. “Das seitenlinienorgan der fische konnte bei der navigation von tiefseero otern helfen”, Wissenschaft online, Germany, June 26, 2002. (English translation of title: The side-line organs of fish could help in the navigation of deep sea robots.)
10. Greg Cline, “‘Lab on a chip´ offers early-warning possibilities,” News Gazette, December 23, 2001.
11. “Touchy touchy,” The Economist, August 10, 2002 issue.
12. “Imitating nature is the sincerest form of flattery,” Forbes ASAP magazine, Fall 2002 issue.
13. G. Kline, "Brick Is No Dummy," *The News-Gazette*. Champaign-Urbana, 2003, p. B-1.
14. N. Moffett, "Thick as a brick? U. of I. invents one that thinks," in The Chicago Sun-Times. Chicago, IL, 2003.
15. Jim Kloeppel, “Smart Bricks could monitor buildings, save lives”, University of Illinois News Bureau release, June 12, 2003.
16. “'Smart' brick sends structural data to computer”, USA Today, July 21, 2003.
17. Greg Kline, “U of I researchers develops smart brick,” St. Louis Post Dispatch, July 27, 2003.

18. Other coverage of smart brick news: BBC Science Radio, Wired Magazine, Business Week, Architecture.com, etc.
19. G. Kline, “Thinking Small on a Bigger Scale," *The News-Gazette*. Champaign-Urbana, February 3, 2005
20. “Smart Brick,” History Channel, may 11, 2005
21. “Flexible Tactile Sensors Could Help Robots Work Better,” UIUC News Bureau, May 19, 2005
22. “Flexible Tactile Sensors Could Help Robots Work Better,” UIUC College of Engineering, May 20, 2005
23. “Flexible Tactile Sensors Could Help Robots Work Better,” Science Daily, May 20, 2005
24. “Researchers Developing Artificial Sense of Touch for Robotics” Linux Electronics, May 21, 2005
25. “Flexible tactile sensors could boost robots sensitivity to touch” Science and nature, May 23, 2005
26. “'Skin' could refine robots' sense of touch” EE times, may 30, 2005
27. “New prescription: Antidotes for radiation,” Chicago Tribune, June 6, 2005
28. “A touchy Mission: Helping Robots Feel,” *The News-Gazette*. Champaign-Urbana, June 5, 2005.
29. “Artificial arrays could help submarines make like a fish,” NewsFocus, Science, Vol. 313, 1382-1384, September 8, 2006.

Issued Patents (12 US patent disclosure and applications)

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