

Award:

Danish Patent Award '98 for "A micromechanical microphone", Danish patent 172085.

List of publications

Patents:

1. J. Bay, S. Bouwstra and O. Hansen, "A micromechanical microphone", Danish patent 172085, Japanese patent 503529/97, US Patent US006075867A.
2. P. Rombach, M. Müllenborn, M. Amskov, H. Hvims, M. Heschel, S. Bouwstra and O. Hansen, "A solid-state silicon-based condenser microphone", US Patent US6,088,463.
3. F. X. Musalem, S. Bouwstra, R. Richards and A. Morris, "A novel robust RF-MEMS varactor with extended tuning range", US Patent US0339806.
4. F. X. Musalem, S. Bouwstra and A. Morris, "Micro-electro-mechanical system (MEMS) variable capacitor apparatuses, systems and related methods", US Divisional Patent Application No. 11/313,300.
5. S. Kweon, H. Shin, C. Kim, S. Lee, M. DaSilva and S. Bouwstra, "Switch pad and micro-switch", Korea, 10-2005-0013182, US Patent 20060181377.

PhD thesis:

S. Bouwstra, "Resonating Microbridge Mass Flow Sensor", Univ. Twente, Enschede, The Netherlands, March 1990. ISBN 90-900 3328-9.

Publications in scientific journals:

1. H. T. G. van Lintel, F. C. M. van de Pol, and S. Bouwstra, "A Piezoelectric Micropump Based on Micromachining of Silicon", *Sensors and Actuators*, 15 (1988), 153-167.
2. S. Bouwstra, P. Kemna, and R. Legtenberg, "Thermally Excited Resonating Membrane Mass Flow Sensor", *Sensors and Actuators*, 20 (1989), 213-223.
3. S. Bouwstra, F. R. Blom, T. S. J. Lammerink, D. J. Ijntema, P. Schrap, J. H. J. Fluitman, and M. Elwenspoek, "Excitation and Detection of Vibrations of Micromechanical Structures Using a Dielectric Thin Film", *Sensors and Actuators*, 17 (1989), 219-223.
4. F. R. Blom, S. Bouwstra, J. H. J. Fluitman, and M. Elwenspoek, "Resonating Silicon Beam Force Sensor", *Sensors and Actuators*, 17 (1989), 513-519.
5. S. Bouwstra, R. Legtenberg, H. A. C. Tilmans, and M. Elwenspoek, "Thermally Excited Resonating Microbridge Mass Flow Sensor", *Sensors and Actuators A*, 21-23 (1989), 332-335.

6. T. S. J. Lammerink, S. Bouwstra, R. H. van Ouwerkerk, J. H. J. Fluitman, and M. Elwenspoek, "Performance of Thermally Excited Resonators", *Sensors and Actuators A*, 21-23 (1989), 352-356.
7. S. Bouwstra, E. de Weerd, and M. Elwenspoek, "In situ Phosphorus-doped Polysilicon for Excitation and Detection of Vibrations of Micromechanical Devices", *Sensors and Actuators A*, 24 (1990), 227-235.
8. R. Legtenberg, S. Bouwstra, and J. H. J. Fluitman, "Resonating Micro-bridge Mass Flow Sensor With Low-Temperature-Glass Bonded Cap Wafer", *Sensors and Actuators A*, 25-27 (1991), 723-727.
9. H. A. C. Tilmans, S. Bouwstra, J. H. J. Fluitman, and S. L. Spence, "Design Considerations for Micromechanical Sensors Using Built-in Resonant Strain Gauges", *Sensors and Actuators A*, 25-27 (1991), 79-86.
10. H. A. C. Tilmans, S. Bouwstra, D. J. Ijntema, and M. Elwenspoek, "A Differential Resonator Design Using a Bossed Structure for Applications in Mechanical Sensors", *Sensors and Actuators A*, 25-27 (1991), 385-393.
11. R. Legtenberg, S. Bouwstra, and M. Elwenspoek, "Low-Temperature-Glass Bonding for Sensor Applications Using Boron Oxide Films", *J. Micromechanical Engineering*, 1 (1991), 157-160.
12. J. J. L. M. van Vlerken, S. Bouwstra, F. R. Blom, J. H. J. Fluitman, and P. C. Breedveld, "Finite-mode Bondgraph Model of a Resonant Silicon Beam Force Sensor", *Int. J. Modelling and Simulation*, 12 (1992), 44-49.
13. F. R. Blom, S. Bouwstra, M. Elwenspoek, and J. H. J. Fluitman, "Dependence of the Quality Factor of Micromachined Silicon Beam Resonators on Pressure and Geometry", *J. Vacuum Science and Technology B*, 10 (1992), 17-26.
14. S. Bouwstra, H. A. C. Tilmans, J. van Rooijen, A. Selvakumar and K. Najafi, "Thermal base drive for micromechanical resonators employing deep-diffusion bases", *Sensors and Actuators A*, 37-38 (1993) 38-44.
15. S. Bouwstra and R. Legtenberg, "Response of Resonating Microbridge Mass Flow Sensor", *Sensors and Materials*, 5, 1 (1993) 1-26.
16. V. L. Spiering, S. Bouwstra and R. M. E. J. Spiering, "On-chip decoupling zones for package-stress reduction", *Sensors and Actuators A*, 39 (1993) 149-156.
17. V. L. Spiering, S. Bouwstra and J. H. J. Fluitman, "Realization of mechanical decoupling zones for package-stress reduction", *Sensors and Actuators A*, 37-38 (1993) 800-804.
18. V. L. Spiering, S. Bouwstra, J. Burger and M. Elwenspoek, "Membranes fabricated with a deep single corrugation for package stress reduction", *J. Micromechanics and Microengineering*, 3 (1993) 243-246.
19. H. A. C. Tilmans and S. Bouwstra, "A Novel Design of a Highly Sensitive Low Differential Pressure Sensor using Built-in Resonant Strain Gauges", *J. Micromechanics and Microengineering*, 3 (1993) 198-202.

20. J. Bay, S. Bouwstra, E. Lægsgaard and O. Hansen, "Micromachined AFM transducer with differential capacitive read-out", *J. Micromechanics and Microengineering*, 5 (1995) 161-165.
21. P. Kersten, S. Bouwstra and J. W. Petersen, "Photo-lithography on micromachined 3D surfaces using electrodeposited photoresists", *Sensors and Actuators A* 51 (1995) 51-54.
22. M. Müllenborn, H. Dirac, J. W. Petersen and S. Bouwstra, "Fast 3D laser micromachining of silicon for micromechanical and microfluidic applications", *Sensors and Actuators A*, 52 (1996), 121-125.
23. T. Storgaard-Larsen, S. Bouwstra and O. Leistiko, "Opto-mechanical accelerometer based on strain sensing by a Bragg grating in a planar waveguide", *Sensors and Actuators A*, 52 (1996), 25-32.
24. J. Bay, O. Hansen and S. Bouwstra, "Design of a silicon microphone with differential capacitive read-out of a sealed double parallel plate capacitor", *Sensors and Actuators A*, 53 (1996), 232-236.
25. Boisen, J. P. Rasmussen, O. Hansen and S. Bouwstra, "Indirect tip fabrication for scanning probe microscopy", *Microelectronic engineering*, 30 (1996), 579-582.
26. Boisen, O. Hansen and S. Bouwstra, "AFM probes with directly fabricated tips", *J. Micromechanics and Microengineering*, 6 (1996), 63-65.
27. E. Mikkelsen, R. de Reus and S. Bouwstra, "Improved quality zinc oxide thin films by *in situ* annealing", *J. Micromechanics and Microengineering*, 6 (1996), 63-65.
28. M. Müllenborn, M. Heschel, H. Dirac and S. Bouwstra, "Laser direct etching of silicon on oxide for fast prototyping", *J. Micromechanics and Microengineering*, 6 (1996), 49-51.
29. C. Christensen, P. Kersten, S. Henke and S. Bouwstra, "Wafer through-hole interconnections with high wiring densities", *IEEE Trans. Compon. Packag. Manuf. Technol. A*, 19 (1996), 516-522.
30. M. Heschel, M. Müllenborn and S. Bouwstra, "Fabrication and characterization of truly 3-D diffuser/nozzle microstructures in silicon", *J. MEMS*, Vol. 6(1), 41-48.
31. U. D. Larsen, O. Sigmund and S. Bouwstra, "Design and fabrication of compliant micromechanisms and structures with negative Poisson's ratio", *J. MEMS*, Vol. 6(2), 99-106.
32. H. A. C. Tilmans and S. Bouwstra, "Excitation and detection of silicon-based micromechanical resonators", *Sensors and Materials*, Vol. 9 (1997), 521-540.
33. M. Heschel, S. Bouwstra, "Conformal coating by photoresist of sharp corners of anisotropically etched throughholes in silicon", *Sensors and Actuators A*, (1998).
34. S. Bouwstra, P. Scheeper, T. Storgaard-Larsen, J. O. Gulløv, J. Bay, P. Rombach, M. Müllenborn, "Silicon microphones: a Danish perspective", *J. Micromechanics and Microengineering*, vol. 8 (1998) 64-68.
35. J. Bay, O. Hansen, S. Bouwstra, "Micromachined differential capacitive microphone", *J. Micromechanics and Microengineering* 9 (1999), 30-33.

36. M. Heschel, J. F. Kuhmann, S. Bouwstra and M. Amskov, "Stacking technology for a space constrained microsystem", *J. Intelligent Materials Systems and Structures*.
37. C. Christensen, R. de Reus and S. Bouwstra, "Tantalum oxide thin films as protective coatings for sensors", *J. Micromechanics and Microengineering* 9 (1999) 113-118.
38. S. Weichel, R. de Reus and S. Bouwstra, "Residual stress in thin film anodic bonding", *J. Micromechanics and Microengineering*.
39. R. De Reus, C. Christensen, S. Weichel, S. Bouwstra, J. Janting, G. F. Eriksen, T. Romedahl-Brown, K. Dyrbye, J. P. Krog O. Søndergaard-Jensen and P. Gravesen "Reliability of industrial packaging for Microsystems", *Microelectronics Reliability* 38 (1998), 1251-1260.
40. J. Jonsmann, O. Sigmund and S. Bouwstra, "Compliant thermal actuators", *Sensors and Actuators A76* (1999) 463-469.
41. J. Thaysen, A. Boisen, O. Hansen and S. Bouwstra, "AFM probe with piezoresistive read-out and highly symmetrical Wheatstone bridge arrangement", *Sensors and Actuators A83* (2000) 47-53.
42. M. Muellenborn, P. Rombach, U. Klein, K. Rasmussen, J. F. Kuhmann, M. Heschel, M. Amskov Gravad, J. Janting, J. Branbjerg, A. C. Hoogerwerf and S. Bouwstra, "Chip-size-packaged silicon microphones", *Sensors and Actuators A92* (2001) 23-29.
43. P. A. Rasmussen, J. Thaysen, S. Bouwstra and A. Boisen, "Modular design of AFM probe with sputtered silicon tip", *Sensors and Actuators A92* (2001) 96-101.
44. F. E. Rasmussen, J. T. Ravnkilde, P. T. Tang, O. Hansen and S. Bouwstra, "Electroplating and characterization of cobalt-nickel-iron and nickel-iron for magnetic microsystem applications", *Sensors and Actuators A92* (2001) 242-248.

Publications in conference proceedings and technical digests:

1. S. Bouwstra and T. S. J. Lammerink, "Chemical Etching of Silicon for Micro-mechanical Devices", *Proceedings 3rd Sensors and Actuators Symposium, Enschede, The Netherlands, September 1986*, pp. 199-209.
2. S. Bouwstra, P. Kemna, and R. Legtenberg, "Thermally Excited Resonating Membrane Mass Flow Sensor", *Technical Digest Eurosensors I, Cambridge, UK, September 1987*, pp. 109-113.
3. H. T. G. van Lintel, F. C. M. van de Pol, and S. Bouwstra, "A Piezoelectric Micropump Based on Micromachining of Silicon", *Technical Digest Eurosensors I, Cambridge, UK, September 1987*, pp. 20-21.
4. S. Bouwstra, F. R. Blom, T. S. J. Lammerink, D. J. Ijntema, P. Schrap, J. H. J. Fluitman, and M. Elwenspoek, "Excitation and Detection of Vibrations of Micro-mechanical Structures Using a Dielectric Thin Film", *Technical Digest Eurosensors II and 4th Sensors and Actuator Symposium, Enschede, The Netherlands, November 1988*, p. 106.

5. F. R. Blom, S. Bouwstra, J. H. J. Fluitman, and M. Elwenspoek, "Resonating Silicon Beam Force Sensor", Technical Digest Eurosensors II and 4th Sensors and Actuator Symposium, Enschede, The Netherlands, November 1988, p. 202.
6. S. Bouwstra, R. Legtenberg, and Th. J. A. Popma, "Silicon-rich LPCVD Silicon Nitride for Micromechanical Structures", Technical Digest Eurosensors II and 4th Sensors and Actuator Symposium, Enschede, The Netherlands, November 1988, p. 167.
7. F. R. Blom, S. Bouwstra, R. M. de Vink, J. H. J. Fluitman, M. Elwenspoek, Th. J. A. Popma, and T. S. J. Lammerink, "The Quality-factor of Micromachined Silicon Beam Resonators", Technical Digest Eurosensors II and 4th Sensors and Actuator Symposium, Enschede, The Netherlands, November 1988, p. 166.
8. M. Elwenspoek, F. R. Blom, S. Bouwstra, T. S. J. Lammerink, F. C. M. van de Pol, H. A. C. Tilmans, Th. J. A. Popma, and J. H. J. Fluitman, "Transduction Mechanisms and Their Applications in Micromechanical Devices", Proceedings MEMS-89, Salt Lake City, Utah, USA, February 1989, pp. 126-132.
9. S. Bouwstra, R. Legtenberg, and H. A. C. Tilmans, "Thermally Excited Resonating Microbridge Mass Flow Sensor", Technical Digest Transducers '89 and Eurosensors III, Montreux, Switzerland, June 1989, pp. 140-141.
10. T. S. J. Lammerink, S. Bouwstra, R. H. van Ouwkerk, J. H. J. Fluitman, and M. Elwenspoek, "Performance of Thermally Excited Resonators", Technical Digest Transducers '89 and Eurosensors III, Montreux, Switzerland, June 1989, pp. 144.
11. R. Legtenberg, S. Bouwstra, and M. Elwenspoek, "Low-Temperature-Glass Bonding for Sensor Applications", Proceedings MME '90, September 1990, Berlin, Germany.
12. M. Elwenspoek, S. Bouwstra, E. de Weerd and Th. J. A. Popma, "Resistivity and gauge factor of in situ phosphorous doped polysilicon", Technical Digest Eurosensors IV, September 1990, Karlsruhe, Germany.
13. R. Legtenberg, S. Bouwstra and J. H. J. Fluitman, "Resonating microbridge mass flow sensor with low-temperature-glass bonded cap wafer", Technical Digest Eurosensors IV, September 1990, Karlsruhe, Germany.
14. H. A. C. Tilmans, S. Bouwstra, J. H. J. Fluitman and S. L. Spence, "Design considerations for micromechanical sensors using built-in resonant strain gauges", Technical Digest Eurosensors IV, September 1990, Karlsruhe, Germany.
15. H. A. C. Tilmans, S. Bouwstra, D. J. Ijntema and M. Elwenspoek, "A differential resonator design using a bossed structure for applications in micromechanical sensors", Technical Digest Eurosensors IV, September 1990, Karlsruhe, Germany.
16. V. L. Spiering, S. Bouwstra, R. M. E. J. Spiering and M. Elwenspoek, "On-chip decoupling zones for package stress reduction", Proceedings Transducers '91, June 1991, San Francisco, USA.
17. S. Bouwstra and H. A. C. Tilmans, "On the resonance frequencies of microbridges", Proceedings Transducers '91, June 1991, San Francisco, USA.

18. S. Bouwstra, H. A. C. Tilmans, A. Selvakumar and K. Najafi, "Base-driven micromechanical resonators", Proceedings IEEE Solid-State Sensors and Actuators Workshop '92, June 1992, Hilton Head, USA.
19. S. Bouwstra, H. A. C. Tilmans, J. van Rooijen, A. Selvakumar and K. Najafi, "Thermal base drive for micromechanical resonators employing deep-diffusion bases", Proceedings Eurosensors VI, September 1996, San Sebastian, Spain.
20. J. Elders, H. A. C. Tilmans, M. Elwenspoek and S. Bouwstra, "Determination of mechanical properties of thin films using resonating micromechanical structures", Proceedings MRS Spring meeting 1993, San Francisco, USA.
21. V. L. Spiering, S. Bouwstra, J. Burger and M. Elwenspoek, "Package stress reduction and low initial stress thanks to deep corrugations", Late News Paters Transducers '93, June 1993, Yokohama, Japan.
22. H. A. C. Tilmans and S. Bouwstra, "A novel design of a highly sensitive low differential pressure sensor using built-in resonant strain gauges", Proceedings MME '93, Neuchâtel, Switzerland
23. V. L. Spiering, S. Bouwstra, J. Burger and M. Elwenspoek, "Membranes fabricated with a deep single corrugation for package stress reduction and residual stress relief", Proceedings MME '93, Neuchâtel, Switzerland
24. J. Bay, S. Bouwstra, E. Lægsgaard and O. Hansen, "Micromachined AFM transducer with differential capacitive read-out", Proceedings MME '94, September 1994, Pisa, Italy
25. P. Kersten, S. Bouwstra and J. W. Petersen, "Photolithography on micromachined 3D surfaces using electrodeposited photoresists", Technical Digest E-MRS, May 1995, Strassbourg.
26. T. Storgaard-Larsen, S. Bouwstra and O. Leistiko, "Opto-mechanical accelerometer based on strain sensing by a Bragg grating in a planar waveguide", Proceedings Transducers 95, June 1995, Stockholm.
27. M. Müllenborn, H. Dirac, J. W. Petersen and S. Bouwstra, "Fast 3D laser micromachining of silicon for micromechanical and microfluidic applications", Proceedings Transducers 95, June 1995, Stockholm.
28. J. Bay, O. Hansen and S. Bouwstra, "Design of a silicon microphone with differential capacitive read-out of a sealed double parallel plate capacitor", Proceedings Transducers 95, June 1995, Stockholm.
29. K. Hoppe, L. U. A. Andersen and S. Bouwstra, "Integrated Mach-Zehnder interferometer pressure transducer", Proceedings Transducers 95, June 1995, Stockholm.
30. Boisen, O. Hansen and S. Bouwstra, "AFM probes with directly fabricated tips", Proceedings MME '95, Copenhagen, Denmark, September 1995.
31. J. Bay, O. Hansen and S. Bouwstra, "Modelling of microphones with differential capacitive read-out and force balancing", Proceedings MME '95, Copenhagen, Denmark, September 1995.

32. E. Mikkelsen, R. de Reus and S. Bouwstra, "Improved quality zinc oxide thin films by *in situ* annealing", Proceedings MME '95, Copenhagen, Denmark, September 1995.
33. M. Müllenborn, M. Heschel, H. Dirac and S. Bouwstra, "Laser direct etching of silicon on oxide for fast prototyping", Proceedings MME '95, Copenhagen, Denmark, September 1995.
34. J. Bastue and S. Bouwstra, "Closed form formulas on linear membrane behaviour", Proceedings MME '95, Copenhagen, Denmark, September 1995.
35. M. Heschel and S. Bouwstra, "Robust, compliant silicon nitride membranes", Proceedings MME '95, Copenhagen, Denmark, September 1995.
36. J. Jonsmann and S. Bouwstra, "On the resonance frequencies of membranes", Proceedings MME '95, Copenhagen, Denmark, September 1995.
37. Boisen, J. P. Rasmussen, O. Hansen and S. Bouwstra, "Indirect tip fabrication for scanning probe microscopy", Proceedings Micro- and Nanoengineering (MNE '95), Aix-en-Provence, France, September 1995.
38. C. Christensen, P. Kersten, S. Bouwstra and J. W. Petersen, "Wafer through-hole interconnections for high vertical wiring densities", Proceedings EuPac, Essen, Germany, January 1996.
39. U. D. Larsen, O. Sigmund and S. Bouwstra, "Design and fabrication of compliant micromechanisms and materials with negative Poisson's ratio's", Proceedings MEMS-96, San Diego, California, February 1996.
40. M. Heschel, M. Müllenborn and S. Bouwstra, "Truly 3-dimensional diffuser/nozzle structures in silicon", Proceedings MSW, Uppsala, Sweden, March 1996.
41. M. Müllenborn and S. Bouwstra, "Fast 3D laser micromachining of silicon for micromechanical and microfluidic applications", Proceedings MSW, Uppsala, Sweden, March 1996. (Invited paper)
42. M. Heschel, M. Müllenborn and S. Bouwstra, "Truly 3-dimensional diffuser/nozzle structures in silicon", Proceedings Actuator '96, Bremen, Germany, June 1996.
43. S. Bouwstra, Micromechanics@MIC.DTU.DK, Proceedings Dutch Sensor Conference, Delft, The Netherlands, March 1996. (Invited paper)
44. M. Heschel, M. Müllenborn and S. Bouwstra, "Truly 3-dimensional diffuser/nozzle structures in silicon", Proceedings Actuator 1996, Bremen, Germany, June 1996.
45. J. Jonsmann and S. Bouwstra, "Resonant membranes for mechanical parameter extraction", Proceedings Eurosensors X, Leuven, Belgium, September 1996.
46. S. Bouwstra, "Stacking technology for space-constrained microsystems", Proceedings ISHM-Nordic, Helsingør, Denmark, September 1996. (Invited paper)
47. C. Christensen, M. Heschel, S. Henke and S. Bouwstra, "Eutectic bonds on wafer scale by thin film multilayers", Proceedings Micromachining & Microfabrication '96, Austin, Texas, October 1996.

48. S. Bouwstra, "Stacking Multi-Chip-Module technology for high-performance intelligent transducers", Proceedings Micromachining & Microfabrication '96, Austin, Texas, October 1996. (Invited paper).
49. M. Müllenborn, F. Grey and S. Bouwstra, "Laser direct oxidation of silicon layers on structured substrates", Proceedings MME '96, September 1996, Barcelona Spain.
50. M. Heschel, S. Bouwstra, "Conformal coating by photoresist of sharp corners of anisotropically etched throughholes in silicon", Transducers 97, June 1997, Chicago, Illinois, USA, proceedings vol. 1, pp. 209-212.
51. S. Bouwstra, P. Scheeper, T. Storgaard-Larsen, J. O. Gulløv, J. Bay, P. Rombach, M. Müllenborn, "Silicon microphones: a Danish perspective", Proceedings MME '97, September 1997, Southampton, UK (invited paper).
52. P. Boman and S. Bouwstra, "Linear behaviour of differential pressure loaded square diaphragms with elastic support", Proceedings MME '97, September 1997, Southampton, UK.
53. J. Bay, O. Hansen and S. Bouwstra, "Quasi-static analyses of square diaphragms and capacitive microphones using finite element calculations", Proceedings MME '97, September 1997, Southampton, UK.
54. M. Heschel, J. F. Kuhmann, S. Bouwstra and M. Amskov, "Stacking Technology for a Space Constrained Microsystem", IEEE workshop on Microelectro Mechanical Systems, MEMS 98, 25-29 January 1998, Heidelberg, Germany.
55. M. Heschel, J. F. Kuhmann, S. Bouwstra and M. Amskov, "Integrated packaging concept for an intelligent transducer", SPIE symposium on Smart electronics and MEMS, 1-5 March 1998, San Diego, CA, USA.
56. Boisen, O. Hansen and S. Bouwstra, "Novel AFM probes, fabrication and characterization", Microsystems Workshop, March 1998, Uppsala, Sweden.
57. C. Christensen, R. de Reus and S. Bouwstra, "Tantalum oxide thin films as protective coatings for sensors", MME '98, June 1998, Ulvik, Norway. Also: ICSFS-9, July 1998, Copenhagen, Denmark. Also: MEMS'99, January 1999, Orlando, FA, USA.
58. S. Weichel, R. de Reus and S. Bouwstra, "Residual stress in thin film anodic bonding", MME '98, June 1998, Ulvik, Norway.
59. J. Jonsmann, O. Sigmund and S. Bouwstra, "Compliant thermal actuators", Eurosensors XII, September 1998, Southampton, UK.
60. R. De Reus, C. Christensen, S. Weichel, S. Bouwstra, J. Janting, G. F. Eriksen, T. Romedahl-Brown, K. Dyrbye, J. P. Krog O. Søndergaard-Jensen and P. Gravesen "Reliability of industrial packaging for Microsystems", ESREF '98, October 1998, Copenhagen, DK.
61. J. Jonsmann, O. Sigmund and S. Bouwstra, "Compliant Electro-thermal microactuators", MEMS'99, January 1999, Orlando, FA, USA.

62. J. Jonsmann and S. Bouwstra, "Thermal microactuator characterization", Proc. Design, Test and Microfabrication of MEMS/MOEMS, March-April 1999, Paris, France.
63. R. K. Vestergaard and S. Bouwstra, "Removable SU-8 Mould with small feature size for electroplating compliant metal microstructures", Procs. Transducers'99, June 1999, Sendai, Japan.
64. A. Boisen, J. Thaysen, O. Hansen and S. Bouwstra, "AFM probe with piezoresistive read-out and highly symmetrical Wheatstone bridge arrangement", Procs. Transducers'99, June 1999, Sendai, Japan.
65. M. Heschel, K. Rasmussen, P. Tang, J. F. Kuhmann and S. Bouwstra, "Interconnect layer with advanced multiple feedthrough metallization for intelligent microphone for hearing aid applications", Procs. Transducers'99, June 1999, Sendai, Japan.
66. J. Jonsmann, O. Sigmund and S. Bouwstra, "Multi degrees of freedom electrothermal microactuators", Procs. Transducers'99, June 1999, Sendai, Japan.
67. R. K. Vestergaard and S. Bouwstra, "Electroplated compliant metal microstructures with small feature size using a removable SU-8 mould", Procs. HARMST'99, June 1999, Tokyo, Japan.
68. J. F. Kuhmann, M. Heschel, S. Bouwstra, F. Baleras and C. Massit, "Through Wafer Interconnects and Flip-Chip Bonding: A Toolbox for Advanced Hybrid Technologies for MEMS", Procs. Eurosensors XIII, pp. 133-134, September 1999, The Hague, The Netherlands.
69. S. Weichel, R. de Reus and S. Bouwstra, "Wafer Curvature and Residual Stress in Thin-Film Anodic Bonding", Procs. Eurosensors XIII, September 1999, The Hague, The Netherlands.
70. C. Christensen, R. de Reus and S. Bouwstra, "Quartz Crystal Microbalance for In-situ Etch Rate Measurements", Procs. Eurosensors XIII, September 1999, The Hague, The Netherlands.
71. M. Heschel, K. Rasmussen, J. F. Kuhmann and S. Bouwstra, "Interconnect layer with advanced multiple feedthrough metallization for intelligent microphone for hearing aid applications", Procs. IMAPS-Nordic, pp. 121-124, September 1999, Helsinki, Finland.
72. M. Heschel, K. Rasmussen, J. F. Kuhmann and S. Bouwstra, "Multiple Through-Wafer Interconnects for stacking of microsystems", Procs. MEMS Symposium of IMECE '99, November 1999, Nashville, Tennessee, USA.
73. M. Muellenborn, P. Rombach, U. Klein, K. Rasmussen, J. F. Kuhmann, M. Heschel and S. Bouwstra, "Stacked silicon microphones", Procs. Eurosensors XIV, August 2000, Copenhagen, Denmark, pp.119-120.
74. T. Lisby, S. Nikles, K. Najafi, O. Hansen, S. Bouwstra, and J. Branebjerg, "Mechanical characterization of flexible silicon microstructures", Procs. Eurosensors XIV, August 2000, Copenhagen, Denmark, pp. 157-158.
75. J. Jonsmann and S. Bouwstra, "Material considerations for topology optimised thermal microactuators", Procs. Eurosensors XIV, August 2000, Copenhagen, Denmark, pp. 171-172.
76. P. A. Rasmussen, J. Thaysen, S. Bouwstra and A. Boisen, "Piezoresistive AFM probe with sputtered silicon tip", Procs. Eurosensors XIV, August 2000, Copenhagen, Denmark, pp. 353-354.

77. F. E. Rasmussen, J. T. Ravnkilde, P. T. Tang, O. Hansen and S. Bouwstra, "Electroplating and characterization of cobalt-nickel-iron and nickel-iron for magnetic microsystems applications", Procs. Eurosensors XIV, August 2000, Copenhagen, Denmark, pp. 507-508.
78. S. Bouaidat, G. F. Eriksen, R. de Reus, P. E. Andersen and S. Bouwstra, "Aggressive media exposed differential pressure sensor with a deposited membrane", Procs. Eurosensors XIV, August 2000, Copenhagen, Denmark, pp. 321-322. See also Procs. MEMS 2001, January 2001, Interlaken, Switzerland, pp. 155-158.
79. M. S. Hansen, R. de Reus, S. Bouwstra and G. F. Eriksen, "Mechanical impact of coatings on membranes", Procs. Eurosensors XIV, August 2000, Copenhagen, Denmark, pp. 405-406. See also Procs. MEMS 2001, January 2001, Interlaken, Switzerland, pp. 361-364.
80. F. X. Musalem, S. Bouwstra, D. de Reus and A. Morris, A novel robust RF-MEMS Varactor design with extended tuning range, ESTEC 4th Round Table on Micro/NanoTechnologies, May 20-22, 2003, Noordwijk, The Netherlands.
81. Mark G. da Silva and Siebe Bouwstra, Critical comparison of metrology techniques for MEMS, SPIE Photonics West MOEMS & MEMS Micro- and Nanofabrication, 20-25 January 2007, San Jose, CA.
82. Siebe Bouwstra and Remco Hageman, Thermo-mechanical simulations of RF-MEMS 0-level package based on wafer bonding by soldering, EuroSimE, 26-28April 2010, Bordeaux, France.
83. Seonho Seok, Nathalie Rolland, Paul-Alain Rolland, Siebe Bouwstra, Thermomechanical simulation of BCB membrane thin-film package, EuroSimE, 26-28April 2010, Bordeaux, France.
84. J. Lenkkeri, E. Juntunen, M. Lahti, S. Bouwstra, Thermo-mechanical simulations of LTCC packages for RF MEMS applications, EuroSimE, 26-28April 2010, Bordeaux, France.
85. Joseph Zekry, Bart Vandeveld, Siebe Bouwstra, Robert Puers, Chris Van Hoof, Harrie A.C. Tilmans, Thermomechanical design and modeling of porous alumina-based thin film packages for MEMS, EuroSimE, 26-28April 2010, Bordeaux, France.
86. B. Vandeveld, R. Janssens, S. Bouwstra, N. Pham, B. Majeed, P. Limaye, E. Beyne, H.A.C. Tilmans, Thermo-mechanical design of a generic 0-level MEMS Package using Chip Capping and Through Silicon Vias, EuroSimE, 26-28April 2010, Bordeaux, France.