

Publications, invited talks and patents

Prof. Harald Schenk

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List of invited talks

1. **Micro actuators for light deflection and modulation**
Bremen University, Bremen, Germany (2003)
2. **Photonic microsystems: An enabling technology for light deflection and modulation**
SPIE Photonics West, MOEMS Display and Imaging Systems, San Jose, USA, DOI:
10.1117/12.523948 (2004)
3. **Microsystems for light processing**
Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, Montreux, Switzerland
(2005)
4. **Optical MEMS for advanced spectrometers**
Optical MEMS, Oulo, Finland, DOI: 10.1109/OMEMS.2005.1540106 (2005)
5. **Micro optical devices for light deflection and modulation**
Microsystems Technology Congress, Freiburg, Germany (2005)
6. **Micro scanning mirrors**
Swiss Federal Institute of Technology, Zurich, Switzerland (2006)
7. **2D micro scanner with high deflection for image acquisition**
Microsystems Technology Congress, Dresden, Germany (2007)
8. **Single crystalline micro mirrors**
Sino-German Symposium „The Silicon Age“, Hangzhou, China (2008)
9. **Silicon based micro optical modulators**
MicroMechanics Europe Workshop, Aachen, Germany (2008)
10. **The high versatility of silicon based micro optical modulators**
SPIE Photonics West, SPIE MOEMS-MEMS: Micro- and Nanofabrication, Plenary Talk, San Jose,
USA, DOI: 10.1117/12.828322 (2009)
11. **Fast scanning with MEMS mirrors - Possibilities and limitations**
Workshop „Fast beam deflection for laser applications“, Nuremberg, Germany (2013)
12. **High frequency MEMS scanners for imaging and patterning**
University of Freiburg, Freiburg, Germany (2014)
13. **Micro mirrors for high-speed laser deflections and patterning**
8th International Conference on Laser Assisted Net Shape Engineering LANE, Fürth, Germany, DOI:
10.1016/j.phpro.2014.08.090 (2014)
14. **Scanning micro mirrors and micro mirror arrays for laser deflection and patterning**
Kassel University, Kassel, Germany (2015)

15. **Mikrooptische Systeme für intelligente industrielle Lösungen [Micro-optical systems for intelligent industrial solutions]**
VDMA Fall Conference, Dresden, Germany (2015)
16. **Implantate - Eine interdisziplinäre Herausforderung [Implants - An interdisciplinary challenge]**
Workshop, Potsdam University, Germany (2016)
17. **Elektrostatische Mikro- und Nanoaktoren, von denen Sie hören werden [Electrostatic micro and nano actuators that you will hear about]**
Brandenburg University of Technology, Cottbus-Senftenberg, Germany (2016)
18. **A novel electrostatic micro-actuator class and its application potential for optical MEMS**
International Conference on Optical MEMS and Nanophotonics OMN, Singapore (2016)
19. **Component and system integration of optical scanners and light modulators**
Handlungsfeldkonferenz Mikrosystemtechnik, Berlin, Germany (2016)
20. **Micro scanner tuned EC quantum cascade laser for fast mid infrared spectroscopic sensing**
Micro Photonics Conference, Berlin, Germany (2016)
21. **A contribution to the expansion of the applicability of electrostatic forces in micro transducers**
SPIE Photonics West, MOEMS and Miniaturized Systems XVI, San Francisco, USA, DOI:
10.1117/12.2249575 (2017)
22. **A new class of electrostatic micro and nano actuators**
Stanford University, Stanford, USA (2017)
23. **A novel approach for high efficient electrostatic micro/nano transducers**
University of California, Berkeley, USA (2017)
24. **Programmierbare optische Oberflächen - Mikrospiegelmatrizen mit nm-Auflösung [Programmable optical surfaces - Micro-mirror matrices with nm resolution]**
Technical University of Applied Sciences Wildau, Germany (2017)
25. **Photonik: Eine Schlüsseltechnologie der Digitalisierung [Photonics: A key technology of digitalization]**
Clusterkonferenz Optik und Photonik, Potsdam, Germany (2017)
26. **Advances in MOEMS Technologies for high quality imaging system**
Keynote talk at SPIE Photonics West, Conf. on Advanced Lithography, San Jose, USA (2018)
27. **Advanced Optical MEMS for High Quality Imaging Systems**
Brandenburg University of Technology, Cottbus-Senftenberg, Germany (2018)
28. **Ein Streifzug durch die Welt der MEMS [A journey into the world of MEMS]**
Brandenburg University of Technology, Cottbus-Senftenberg, Germany (2018)
29. **Micro-Energy-Harvester: Device Concepts and Materials**
Brandenburg University of Technology, Cottbus-Senftenberg, Germany (2019)

List of journal contributions (refereed)

1. D. R. Yakovlev, V. P. Kochereshko, R. A. Suris, H. Schenk, W. Ossau, A. Waag, G. Landwehr, P. C. M. Christianen, J. C. Maan
Combined exciton-cyclotron resonance in quantum well structures
In: Physical Review Letters, USA: APS, Vol.79/20, pp. 3974-3977, DOI: 10.1103/PhysRevLett.79.3974 (1997)
2. H. Schenk, M. Wolf, G. Mackh, U. Zehnder, W. Ossau, A. Waag, G. Landwehr
Influence of the negative thermal-expansion coefficient on the luminescence properties of (CdMnMg)Te
In: Journal of Applied Physics, Vol.79/11, pp. 8704-8711, DOI: 10.1063/1.362496 (1996)
3. H. Schenk, P. Dürr, U. Sobe
Antrieb für Mikromechanische Scannerspiegel
In: Elektronik Heft 24, pp. 54-58 (1999)
4. H. Schenk
Ablenkeinheiten für die Sensorik
In: Sensor-Report Nr. 5, pp. 18 (2000)
5. H. Schenk
Leuchtende Ablenkung: Mikromechanische Scannerspiegel erreichen 30 kHz
In: Elektronik-Praxis, Nr.19, pp. 114-116 (2000)
6. H. Schenk, P. Dürr, T. Haase, D. Kunze, U. Sobe, H. Lakner, H. Kück
Large deflection micromechanical scanning mirrors for linear scans and pattern generation
In: Journal of Selected Topics in Quantum Electronics, invited paper, Vol. 6, No. 5, pp. 715-722, DOI: 10.1109/2944.892609 (2000)
7. H. Schenk, P. Dürr, D. Kunze, H. Lakner, H. Kück
A resonantly excited 2D-micro-scanning-mirror with large deflection
In: Sensors and Actuators A 89, pp. 104-111, DOI: 10.1016/S0924-4247(00)00529-X (2001)
8. H. Grüger, H. Schenk, A. Wolter, A. Heberer, F. Zimmer
Spektrometer mit mikromechanischem Gitter: Mikro-opto-mechanische Systeme durchbrechen Preisbarrieren
In: Sensor Report, Nr. 6, pp. 16-17 (2004)
9. H. Schenk, A. Wolter, U. Dauderstädt, A. Gehner, H. Lakner
Micro-opto-electro-mechanical-systems technology and its impact on photonic applications
In: Journal of Microlithography, Microfabrication and Microsystems, Vol. 4, No. 4, pp. 041501-11, DOI: 10.1117/1.2131824 (2005)
10. A. Gatto, M. Yang, N. Kaiser, J. Heber, J.-U. Schmidt, T. Sandner, H. Schenk, H. Lakner
High-performance coatings for micromechanical mirrors
In: Journal of Applied Optics, Vol. 45, No. 7, pp. 1602-1607, DOI: 10.1364/AO.45.001602 (2006)
11. M. Kraft, A. Kenda, A. Frank, W. Scherf, A. Heberer, T. Sandner, H. Schenk, F. Zimmer
Single-detector micro-mechanical scanning grating spectrometer
In: Anal Bioanal Chem 386, pp. 1259-1266, DOI: 10.1007/s00216-006-0726-5 (2006)
12. S.-T. Hsu, T. Klose, C. Drabe, H. Schenk
Fabrication and characterization of a dynamically flat high resolution microscanner
In: Journal of Optics A: Pure and Applied Optics, Vol. 10, 044005, pp. 1-8, DOI: 10.1088/1464-4258/10/4/044005 (2008)

13. M. Scholles, A. Bräuer, K. Frommhagen, C. Gerwig, H. Lakner, H. Schenk, M. Schwarzenberg
Ultra compact laser projection systems based on two-dimensional resonant microscanning mirrors
In: Journal of Micro/Nanolithography, MEMS, and MOEMS, Vol. 7, No. 2, pp. 021001-1-11, DOI: 10.1117/1.2911643 (2008)
14. T. Sandner, C. Drabe, H. Schenk, A. Kenda, W. Scherf
Translatory MEMS actuators for optical path length modulation in miniaturized Fourier-transform infrared spectrometers
In: Journal of Micro/Nanolithography, MEMS, and MOEMS, Vol. 7, No. 2, pp. 021006-1-12, DOI: 10.1117/1.2945227 (2008)
15. F. Zimmer, A. Heberer, H. Grüger, H. Schenk
Investigation and characterization of highly efficient near-infrared scanning gratings used in near-infrared microspectrometers
In: Journal of Micro/Nanolithography, MEMS, and MOEMS, Vol. 7, No. 2, pp. 021005-1-10, DOI: 10.1117/1.2911035 (2008)
16. H. Grüger, T. Egloff, M. Scholles, F. Zimmer, H. Schenk
Spectrometers: MOEMS scanning grating chips reveal spectral images
In: Laser Focus World 44, No. 7, pp. 52-55 (2008)
17. H. Schenk, T. Sandner, C. Drabe, T. Klose, H. Conrad
Single crystal silicon micro mirrors
In: Phys. Status Solidi C 6, No. 3, pp. 728-735, DOI: 10.1002/pssc.200880714 (2009)
18. H. Conrad, T. Sandner, H. Schenk, H. Lakner
Eine »Reinkarnation« in der Strukturmechanik
In: CAD-CAM Report, No. 4, pp. 16-19 (2009)
19. C. Ataman, H. R. Seren, H. Schenk, H. Ürey
Dynamic characterization of MEMS scanners
In: Sensors & Transducers Journal, Vol. 108, No. 9, pp. 31-39 (2009)
20. M. Lenzhofer, A. Tortschanoff, A. Frank, T. Sandner, H. Schenk, M. Kraft, A. Kenda
MOEMS translatory actuator characterisation, position encoding and closed-loop control
In: Microsystem Technologies 16, No. 5, pp. 901-907, DOI: 10.1007/s00542-010-1029-5 (2010)
21. A. Tortschanoff, M. Lenzhofer, A. Frank, M. Wildenhain, T. Sandner, H. Schenk, A. Kenda
Position encoding and phase control of resonant MOEMS-mirros
In: Sensors and Actuators A 162, pp. 235-240, DOI: 10.1016/j.proche.2009.07.328 (2010)
22. T. Sandner, T. Grasshoff, M. Schwarzenberg, R. Schroedter, H. Schenk
Quasistatic microscanner with linearized scanning for an adaptive three-dimensional laser camera
In: Journal of Micro/ Nanolithography, MEMS, and MOEMS, Vol. 13, No. 1, pp. 011114-1-11, DOI: 10.1117/1.JMM.13.1.011114 (2014)
23. T. Sandner, T. Grasshoff, E. Gaumont, H. Schenk, A. Kenda
Translatory MOEMS actuator and system integration for miniaturized Fourier transform spectrometers
In: Journal of Micro/ Nanolithography, MEMS, and MOEMS, Vol. 13, No. 1, 011115-1-14, DOI: 10.1117/1.JMM.13.1.011115 (2014)
24. H. Schenk, J. Grahmann, T. Sandner, M. Wagner, U. Dauderstädt, J.-U. Schmidt
Micro mirrors for high-speed laser deflections and patterning
In: Physics Procedia, invited paper, Vol. 56, pp. 7-18, DOI: 10.1016/j.phpro.2014.08.090 (2014)

25. B. Kaiser, T. Grasshoff, C. Drabe, H. Conrad, H. Schenk
About stress in filled DRIE-trenches
 In: Journal of Micromechanics and Microengineering (JMM), Vol. 25, No. 8, 085003, DOI: 10.1088/0960-1317/25/8/085003 (2015)
26. H. Conrad, H. Schenk, B. Kaiser, S. Langa, M. Gaudet, K. Schimmanz, M. Stolz, M. Lenz
A small-gap electrostatic micro-actuator for large deflections
 In: Nature Communications 6, 10078, DOI: 10.1038/ncomms10078 (2015)
27. Vl. Kolkovsky, R. Stübner, S. Langa, U. Wende, B. Kaiser, H. Conrad, H. Schenk
Influence of annealing in H atmosphere on the electrical properties of Al₂O₃ layers grown on p-type Si by the atomic layer deposition technique
 In: Solid-State Electronics 123, pp. 89-95, DOI: 10.1016/j.sse.2016.06.005 (2016)
28. H. Conrad, B. Kaiser, M. Gaudet, S. Langa, M. Stolz, S. Uhlig, K. Schimmanz, H. Schenk
A novel electrostatic actuator class
 In: Procedia Engineering, 168, pp. 1533-1536, DOI: 10.1016/j.proeng.2016.11.454 (2016)
29. S. Langa, H. Conrad, B. Kaiser, M. Stolz, M. Gaudet, S. Uhlig, K. Schimmanz, H. Schenk
Technological aspects of a new micro-electro-mechanical actuation principle: nano-e-drive
 In: Microsyst Technol, Vol. 23, Iss. 12, pp. 5697-5708, DOI: 10.1007/s00542-017-3360-6 (2017)
30. R. Borgia, M. Bestehorn, S. Uhlig, M. Gaudet, H. Schenk
Liquid pumping induced by transverse forced vibrations of an elastic beam: A lubrication approach
 In: Phys. Rev. Fluids, Vol. 3, Iss. 8, No. 084202, DOI: 10.1103/PhysRevFluids.3.084202 (2018)
31. S. Uhlig, M. Gaudet, S. Langa, K. Schimmanz, H. Conrad, B. Kaiser, H. Schenk
Electrostatically driven in-plane silicon micropump for modular configuration
 In: Micromachines, Vol. 9, No. 4, DOI: 10.3390/mi9040190 (2018)
32. B. Kaiser, S. Langa, L. Ehrig, M. Stolz, He. Schenk, H. Conrad, H. Schenk, K. Schimmanz, D. Schuffenhauer
Concept and proof for an all-silicon MEMS micro speaker utilizing air chambers
 In: Microsystems & Nanoengineering, Vol. 5, No. 43, DOI: 10.1038/s41378-019-0095-9 (2019)

Contributions to Conferences and Workshops

1. L. Worschech, C. Fischer, H. Schenk, W. Ossau, E. Kurtz, H. Schäfer, W. Faschinger, A. Waag, G. Landwehr
Linearly polarized luminescence associated with structural defects in MBE grown ZnSe
In: International Symposium on Blue Laser and Light Emitting Diodes, Chiba, Japan, 1996, Blue Laser and Light Emitting Diodes, xviii+580, pp. 421-424 (1996)
2. B. Jobst, S. Strauf, P. Bäume, E. Kurtz, H. Schenk, J. Gutowski, D. Hommel, G. Landwehr
Influence of the sulphur and magnesium content on donor-acceptor-pair emission in nitrogen-plasma doped ternary and quaternary $Zn_{1-x}Mg_xS_ySe_{1-y}$
In: International Symposium on Blue Laser and Light Emitting Diodes, Chiba, Japan, 1996, Blue Laser and Light Emitting Diodes, xviii+580, pp. 409-412 (1996)
3. J. Linsmeier, K. Wüst, H. Schenk, U. Hilpert, W. Ossau, J. Fricke, R. Arens-Fischer
Chemical surface modification of porous silicon using tetraethoxysilane
In: E-MRS Spring Conference, Symposium L: New Developments in Porous Silicon: Relation with other Nanostructured Porous Materials, Strasbourg, France, 1996, Thin Solid Films, Vol. 297/1-2, pp. 26-30, DOI: 10.1016/S0040-6090(96)09360-1 (1997)
4. H. Schenk, P. Dürr, H. Kück
A novel electrostatically driven torsional actuator
In: International Conference on Micro Opto Electro Mechanical Systems, Mainz, Germany, 1999, pp. 3-10 (1999)
5. H. Lakner, W. Doleschal, P. Dürr, A. Gehner, H. Schenk, A. Wolter, G. Zimmer
Micromirrors for direct writing systems and scanners
In: SPIE Conference: Miniaturized Systems with Micro-optics and MEMS, Santa Clara, USA, 1999, Proc. SPIE 3878, pp. 217-227, DOI: 10.1117/12.361264 (1999)
6. H. Schenk, P. Dürr, D. Kunze, H. Kück
A new driving principle for micromechanical torsional actuators
In: International Mechanical Engineering Congress & Exhibition, Nashville, USA, 1999, Micro-Electro-Mechanical Systems (MEMS), Proc. MEMS, Vol. 1, pp. 333-338 (1999)
7. H. Schenk, P. Dürr, D. Kunze, H. Lakner, H. Kück
An electrostatically excited 2D-micro-scanning-mirror with an in-plane configuration of the driving electrodes
In: International Conference on Micro Electro Mechanical Systems, Miyazaki, Japan, 2000, Proc. MEMS, pp. 473-478, DOI: 10.1109/MEMSYS.2000.838563 (2000)
8. H. Schenk, P. Dürr, D. Kunze, H. Lakner, H. Kück
Design and modelling of large deflection micromechanical 1D- and 2D-scanning-mirrors
In: SPIE Conference: MOEMS and miniaturized Systems, Santa Clara, USA, 2000, Proc. SPIE 4178, pp. 116-125, DOI: 10.1117/12.396479 (2000)
9. H. Schenk, A. Wolter, H. Lakner
Design optimization of an electrostatically driven micro scanning mirror
In: SPIE Conference: MOEMS and miniaturized Systems II, San Francisco, USA, 2000, Proc. SPIE 4561, pp. 35-44, DOI: 10.1117/12.443106 (2001)
10. E. Gaumont, A. Wolter, H. Schenk, G. Georgelin, M. Schmoger
Mechanical and electrical failures and reliability of Micro Scanning Mirrors
In: International Symposium on the Physical and Failure Analysis of Integrated Circuits, Singapore, 2002, Proc. IPFA, pp. 212-217, DOI: 10.1109/IPFA.2002.1025665 (2002)

11. H. Lakner, P. Dürr, H. Schenk, A. Gehner
Mustererzeugung und -erfassung mit mikromechanischen Spiegeln und Spiegelarrays
In: VDE-Kongress NetWorlds: Leben in vernetzten Welten, Dresden, Germany, 2002, Vol. 2, pp. 141-146 (2002)
12. A. Wolter, H. Schenk, E. Gaumont, H. Lakner
Improved layout for a resonant 2D micro scanning mirror with low operation voltages
In: SPIE Conference: MOEMS Display and Imaging Systems, San Jose, USA, 2003, Proc. SPIE 4985, pp. 72-82, DOI: 10.1117/12.472863 (2003)
13. K.-U. Roscher, U. Fakesch, H. Schenk, H. Lakner, D. Schlebusch
Driver ASIC for synchronized excitation of resonant micro mirrors
In: SPIE Conference: MOEMS Display and Imaging Systems, San Jose, USA, 2003, Proc. SPIE 4985, pp. 121-130, DOI: 10.1117/12.477810 (2003)
14. H. Grüger, A. Wolter, T. Schuster, H. Schenk, H. Lakner
Realization of a spectrometer with micromachined scanning grating
In: SPIE Conference: MEMS/ MOEMS: Advances in Photonic Communications, Sensing, Metrology, Packaging and Assembly, Bruges, Belgium, 2002, Proc. SPIE 4945, pp. 46-53, DOI: 10.1117/12.471993 (2003)
15. H. Grüger, A. Wolter, T. Schuster, H. Schenk, H. Lakner
Performance and applications of a spectrometer with micromachined scanning grating
In: SPIE Conference: Integrated Optics: Devices, Materials, and Technologies VII, San Jose, USA, 2003, Proc. SPIE 4987, pp. 284-291, DOI: 10.1117/12.478317 (2003)
16. P. Dürr, U. Dauderstädt, D. Kunze, M. Auvert, T. Bakke, H. Schenk, H. Lakner
Characterization of spatial light modulators for micro lithography
In: SPIE Conference: MOEMS Display and Imaging Systems, San Jose, USA, 2003, Proc. SPIE 4985, pp. 204-214, DOI: 10.1117/12.477803 (2003)
17. A. Gehner, M. Wildenhain, W. Doleschal, A. Elgner, H. Schenk, H. Lakner
Improved vision by eye aberration correction using an active-matrix-addressed micromirror array
In: SPIE Conference: MOEMS and Miniaturized Systems III, San Jose, USA, 2003, Proc. SPIE 4983, pp. 235-247, DOI: 10.1117/12.472902 (2003)
18. S. Manhart, H. Schenk, M. Kiening, L. Marchand
Reliability assessment and lifetime testing with micro-mirrors
In: 4th Round Table on Micro/ Nano Technologies for Space, ESTEC, Noordwijk, The Netherlands, 2003 (2003)
19. A. Wolter, H. Korth, H. Schenk, H. Lakner
Temperature stability of the frequency of a resonant micro scanning mirror
In: IEEE/ LEOS Conference: International Conference on Optical MEMS, Waikoloa/Hawaii, USA, 2003, pp. 55-56, DOI: 10.1109/OMEMS.2003.1233464 (2003)
20. H. Schenk, U. Dauderstädt, A. Gehner, A. Wolter, H. Grüger, C. Drabe, H. Lakner
Photonic Microsystems: An enabling technology for light deflection and modulation
In: SPIE Conference: MOEMS Display and Imaging Systems II, San Jose, USA, 2004, invited paper, Proc. SPIE 5348, pp. 7-21, DOI: 10.1117/12.523948 (2004)
21. C. Drabe, H. Schenk, K.-U. Roscher, D. Kunze, H. Lakner
Accelerometer by means of a Resonant Micro Actuator
In: SPIE Conference: MEMS/ MOEMS Components and Their Applications, San Jose, USA, 2004, Proc. SPIE 5344, pp. 124-133, DOI: 10.1117/12.524130 (2004)

22. A. Wolter, H. Schenk, H. Korth, H. Lakner
Torsional stress, fatigue and fracture strength in silicon hinges of a micro scanning mirror
 In: SPIE Conference: Reliability, Testing, and Characterization of MEMS/ MOEMS III, San Jose, USA, 2004, Proc. SPIE 5343, pp. 176-185, DOI: 10.1117/12.524872 (2004)
23. A. Kenda, W. Scherf, R. Hauser, H. Grüger, H. Schenk
A compact spectrometer based on a micromachined torsional mirror device
 In: IEEE Conference: International Conference on Sensors, Vienna, Austria, 2004, Proc. IEEE Vol. 3, pp. 1312-1315, DOI: 10.1109/ICSENS.2004.1426423 (2004)
24. T. Kiessling, A. Wolter, H. Schenk, H. Lakner
Bulk micro machined quasistatic torsional micro mirror
 In: SPIE Conference on MOEMS and Miniaturized Systems IV, San Jose, USA, 2004, Proc. SPIE 5346, pp. 193-202, DOI: 10.1117/12.530717 (2004)
25. A. Wolter, H. Schenk, E. Gaumont, H. Lakner
MEMS microscanning mirror for barcode reading: from development to production
 In: SPIE Conference: MOEMS Display and Imaging Systems II, San Jose, USA, 2004, Proc. SPIE 5348, pp. 32-39, DOI: 10.1117/12.530795 (2004)
26. U. Dauderstädt, P. Dürr, T. Karlin, H. Schenk, H. Lakner
Application of spatial light modulators for microlithography
 In: SPIE Conference: MOEMS Display and Imaging Systems II, San Jose, USA, 2004, Proc. SPIE 5348, pp. 119-126, DOI: 10.1117/12.528798 (2004)
27. K.-U. Roscher, H. Grätz, H. Schenk, A. Wolter, H. Lakner
Low cost projection device with a 2-dimensional resonant micro scanning mirror
 In: SPIE Conference: MOEMS Display and Imaging Systems II, San Jose, USA, 2004, Proc. SPIE 5348, pp. 22-31, DOI: 10.1117/12.530860 (2004)
28. J. Schreiber, S. Braun, A. Gatto, H. Schenk
Improved mechanical properties of metallic micro-structures
 In: SPIE Conference: Testing, Reliability, and Application of Micro- and Nano-Material Systems II, San Diego, USA, 2004, Proc. SPIE 5392, pp. 114-122, DOI: 10.1117/12.541312 (2004)
29. K.-U. Roscher, H. Grätz, H. Schenk, A. Wolter, H. Lakner
Laser projection device based on a 2D resonant micro scanning mirror
 In: 19. Electronic Displays 2004. CD-ROM: Bildschirme und Anzeigesysteme, ihre Bauelemente und Baugruppen, Wiesbaden, Germany (2004)
30. D. Schlebusch, G. Bunk, U. Vogel, H. Schenk, K.-U. Roscher
Analogue components for a mixed signal driver ASIC for resonant micro-mirror control
 In: International Conference for Optical Technologies, Optical Sensors and Measuring Techniques and IRS2, International Conference for Infrared Sensors and Systems, Nuremberg, Germany, 2004, Proc. OPTO, pp. 35-40 (2004)
31. T. Sandner, T. Klose, A. Wolter, H. Schenk, H. Lakner, W. Davis
Damping analysis and measurement for a comb-drive scanning mirror
 In: SPIE Conference: MEMS, MOEMS, and Micromachining, Strasbourg, France, 2004, Proc. SPIE 5455, pp. 147-158, DOI: 10.1117/12.550529 (2004)
32. A. Wolter, E. Gaumont, H. Korth, H. Schenk, H. Lakner
Fabrication end- test of the micro scanning mirror
 In: SPIE Conference: MEMS, MOEMS, and Micromachining, Strasbourg, France, 2004, Proc. SPIE 5455, pp. 54-65, DOI: 10.1117/12.545247 (2004)

33. F. Zimmer, H. Grüger, A. Heberer, A. Wolter, H. Schenk
Development of a NIR micro spectrometer based on a MOEMS scanning grating
 In: SPIE Conference: MEMS, MOEMS, and Micromachining, Strasbourg, France, 2004, Proc. SPIE 5455, pp. 9-18, DOI: 10.1117/12.544638 (2004)
34. H. Schenk, P. Dürr, U. Dauderstädt, A. Gehner, A. Wolter, H. Lakner
Light processing with electrostatically driven micro scanning mirrors and micro mirror arrays
 In: MicroNano Integration, Berlin, Germany, 2004, pp. 89-96 (VDI book), DOI: 10.1007/978-3-642-18727-8_13 (2004)
35. A. Wolter, A. Herrmann, G. Yildiz, H. Schenk, H. Lakner
Designing MEMS for manufacturing
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36. A. Wolter, S.-T. Hsu, H. Schenk, H. Lakner
Applications and requirements for MEMS scanner mirrors
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37. T. Sandner, J.-U. Schmidt, H. Schenk, H. Lakner, S. Braun, T. Foltyn, A. Leson, A. Gatto, M. Yang, N. Kaiser
Micromechanical scanning mirrors with highly reflective NIR coatings for high power applications
 In: SPIE Conference: MOEMS Display and Imaging Systems III, San Jose, USA, 2005, Proc. SPIE 5721, pp. 34-42, DOI: 10.1117/12.590448 (2005)
38. T. Sandner, J.-U. Schmidt, H. Schenk, H. Lakner, A. Gatto, M. Yang, N. Kaiser, S. Braun, T. Foltyn, A. Leson
Highly reflective coatings for micromechanical mirror arrays operating in the DUV and VUV spectral range
 In: SPIE Conference: MOEMS Display and Imaging Systems III, San Jose, USA, 2005, Proc. SPIE 5721, pp. 72-80, DOI: 10.1117/12.590522 (2005)
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