Martin Hoffmann

List of Publications by Year in descending order

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304743 315739 2,073 162 22 38 citations h-index g-index papers 164 164 164 1828 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Sub-THz Luneburg lens enabled wide-angle frequency-coded identification tag for passive indoor self-localization. International Journal of Microwave and Wireless Technologies, 2023, 15, 59-73.	1.9	3
2	Tracing the Force-Displacement Characteristics of Non-Linear Microsystems by In-Situ Characterization. , 2022, , .		0
3	Modeling and Control Design of a Contact-Based, Electrostatically Actuated Rotating Sphere. Actuators, 2022, 11, 90.	2.3	0
4	A passive acceleration sensor with mechanical 6 bit memory and mechanical analog-to-digital converter. Micro and Nano Engineering, 2022, 15, 100142.	2.9	7
5	Highly Anisotropic Fluorineâ€Based Plasma Etching of Ultralow Expansion Glass. Advanced Engineering Materials, 2021, 23, 2001336.	3.5	9
6	DRIE Si Nanowire Arrays Supported Nano-Carbon Film for Deriving High Specific Energy Supercapacitors On-Chip. Journal of Physics: Conference Series, 2021, 1837, 012005.	0.4	2
7	Frequency Coded Retroreflective Landmark for 230 GHz Indoor Self-Localization Systems., 2021,,.		5
8	Design and Fabrication of MEMS Reflectors for THz Reflect-Arrays. , 2021, , .		7
9	3-Bit Digital-to-Analog Converter with Mechanical Amplifier for Binary Encoded Large Displacements. Actuators, 2021, 10, 182.	2.3	8
10	Design and Characterization of an Electrostatic Constant-Force Actuator Based on a Non-Linear Spring System. Actuators, 2021, 10, 192.	2.3	4
11	Highly Selective Guiding Springs for Large Displacements in Surface MEMS. Journal of Microelectromechanical Systems, 2021, 30, 597-611.	2.5	12
12	Development and Implementation of a Rotating Nanoimprint Lithography Tool for Orthogonal Imprinting on Edges of Curved Surfaces. Nanomanufacturing and Metrology, 2021, 4, 175-180.	3.0	2
13	Configuration of a MEMS-based Terahertz Reflectarray Using a Genetic Algorithm. , 2021, , .		2
14	Large Stepwise Discrete Microsystem Displacements Based on Electrostatic Bending Plate Actuation. Actuators, 2021, 10, 272.	2.3	4
15	Dependability Aspects in Configurable Embedded Operating Systems. Embedded Systems, 2021, , 85-116.	0.6	О
16	Perspectives of reactive ion etching of silicate glasses for optical microsystems. Journal of Optical Microsystems, 2021, 1, .	1.5	9
17	Micromechanical Reflect-Array for THz Radar Beam Steering based on a Mechanical D/A Converter and a Mechanical Amplifier. , 2020, , .		3
18	Engineering a Compliant Mechanical Amplifier for MEMS Sensor Applications. Journal of Microelectromechanical Systems, 2020, 29, 214-227.	2.5	33

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19	Frequency-Coded mm-Wave Tags for Self-Localization System Using Dielectric Resonators. Journal of Infrared, Millimeter, and Terahertz Waves, 2020, 41, 908-925.	2.2	25
20	Direct Binary Encoding of Displacements on the Nano-Scale. , 2020, , .		1
21	Terahertz Beam Steering Concept Based on a MEMS-Reconfigurable Reflection Grating. Sensors, 2020, 20, 2874.	3.8	14
22	Advanced broadband MEMS infrared emitter based on high-temperature-resistant nanostructured surfaces and packaging solutions for harsh environments. , 2020, , .		0
23	Highly Integrated RF-MEMS Multi-Frequency Oscillator on a Silicon-Ceramic Composite Substrate. , 2019, , .		1
24	Cross-Hierarchical Design of Compact RF-MEMS Oscillator Circuits on a Silicon-Ceramic Composite Substrate., 2019,,.		0
25	How to Defeat Electric Noise in Measurement Acquisition Using a Micromechanical Analog-to-Digital Converter. , 2019, , .		3
26	Silicon-Ceramic Composite Substrate: A Promising RF Platform for Heterogeneous Integration. IEEE Microwave Magazine, 2019, 20, 28-43.	0.8	5
27	Investigation of ScAlN for piezoelectric and ferroelectric applications. , 2019, , .		2
28	Comparision of Deep Etched Borosilicate Glasses in a Fluorine Based Plasma., 2019, , .		0
29	Integrated soft UV-nanoimprint lithography in a nanopositioning and nanomeasuring machine for accurate positioning of stamp to substrate. , 2019, , .		6
30	A microoptical sidestream cuvette based on fast passive gas exchange for capnography. Sensors and Actuators A: Physical, 2018, 276, 68-75.	4.1	4
31	Multiphysical design of compact RF modules on a silicon-ceramics substrate. , 2018, , .		1
32	Surface-Nanostructured Al–AlN Composite Thin Films with Excellent Broad-Band Antireflection Properties Fabricated by Limited Reactive Sputtering. ACS Applied Nano Materials, 2018, 1, 1124-1130.	5.0	7
33	Deep etching of Zerodur glass ceramics in a fluorine-based plasma. Microelectronic Engineering, 2018, 185-186, 1-8.	2.4	8
34	FDTS as Dewetting Coating for an Electrowetting Controlled Silicon Photonic Switch. IEEE Photonics Technology Letters, 2018, 30, 2005-2008.	2.5	5
35	Electrowetting Controlled Non-Volatile Integrated Optical Switch. , 2018, , .		2
36	A Micromechanical Binary Counter with MEMS-Based Digital-to-Analog Converter. Proceedings (mdpi), 2018, 2, .	0.2	4

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37	An Analytical Formulation of the Radio-Frequency Response of Piezoelectric Contour-Mode MEMS Resonators Verified by Measurements. , 2018, , .		O
38	A Multi-Frequency MEMS-Based RF Oscillator Covering the Range from 11.7 MHz to 1.9 GHz., 2018, , .		4
39	Image inverting, topography and feature size manipulation using organic/inorganic bi-layer lift-off for nanoimprint template. Microelectronic Engineering, 2018, 197, 39-44.	2.4	4
40	Freeform characterization based on nanostructured diffraction gratings. Applied Optics, 2018, 57, 3808.	1.8	3
41	Deep etched and released microstructures in Zerodur in a fluorine-based plasma. Microelectronic Engineering, 2018, 198, 78-84.	2.4	6
42	Design and implementation of a MEMS-based RF oscillator on a unique silicon-ceramic composite substrate. , $2018, , .$		3
43	Discrete Similariton and Dissipative Soliton Modelocking for Energy Scaling Ultrafast Thin-Disk Laser Oscillators. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-12.	2.9	6
44	An Analytical Temperature-Dependent Design Model for Contour-Mode MEMS Resonators and Oscillators Verified by Measurements. Sensors, 2018, 18, 2159.	3.8	6
45	Global Optimization of Fixed-Priority Real-Time Systems by RTOS-Aware Control-Flow Analysis. Transactions on Embedded Computing Systems, 2017, 16, 1-25.	2.9	13
46	A monolithic micro-optical interferometer deep etched into fused silica. Microelectronic Engineering, 2017, 174, 40-45.	2.4	13
47	Consecutive imprinting performance of large area UV nanoimprint lithography using Bi-layer soft stamps in ambient atmosphere. Microelectronic Engineering, 2017, 176, 62-70.	2.4	13
48	EWOD system designed for optical switching. , 2017, , .		6
49	Material Dependence of the Contact Behavior of Oscillating Microprobes—Modeling and Experimental Evidence. Journal of Micro and Nano-Manufacturing, 2017, 5, .	0.7	2
50	The NanoTuFe — Fabrication of large area periodic nanopatterns with tunable feature sizes at low cost. Microelectronic Engineering, 2017, 180, 71-80.	2.4	4
51	Low-cost fabrication of nanoimprint templates with tunable feature sizes at a constant pitch. Microelectronic Engineering, 2017, 170, 34-38.	2.4	5
52	Taper silicon nano-scaffold regulated compact integration of 1D nanocarbons for improved on-chip supercapacitor. Nano Energy, 2017, 41, 618-625.	16.0	14
53	Stress-modulated tilt actuator for tunable optical prisms. Sensors and Actuators A: Physical, 2017, 266, 328-337.	4.1	1
54	Silicon grass based nano functional electrodes for MEMS supercapacitors of improved energy density. , 2017, , .		0

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55	Ternary composite Si/TiN/MnO2 taper nanorod array for on-chip supercapacitor. Electrochimica Acta, 2017, 248, 397-408.	5 . 2	32
56	Active pore for sensor protection: A PNIPAM based micro valve in LTCC., 2017,,.		0
57	Numerical model of a passive microsystem detecting and saving independent acceleration shocks. Journal of Physics: Conference Series, 2017, 922, 012008.	0.4	0
58	Effectiveness of Software-Based Hardening for Radiation-Induced Soft Errors in Real-Time Operating Systems. Lecture Notes in Computer Science, 2017, , 3-15.	1.3	11
59	Design, fabrication and characterisation of a microfluidic time-temperature indicator. Journal of Physics: Conference Series, 2017, 922, 012004.	0.4	4
60	Micro-Venturi injector: design, experimental and simulative examination. Journal of Physics: Conference Series, 2016, 757, 012027.	0.4	0
61	Process flow to integrate nanostructures on silicon grass in surface micromachined systems. Journal of Physics: Conference Series, 2016, 757, 012022.	0.4	0
62	Nano fabricated silicon nanorod array with titanium nitride coating for on-chip supercapacitors. Electrochemistry Communications, 2016, 70, 51-55.	4.7	46
63	Non-electrical Sensing and Storing an Alternative to Electrical Energy Harvesting. Procedia Engineering, 2016, 168, 1621-1625.	1.2	1
64	Compact low phase-noise MEMS-based RF oscillator on a dedicated silicon-ceramic composite substrate. , $2016, , .$		6
65	Hybrid-integrated RF MEMS-based reference oscillator using a silicon-ceramic composite substrate. , 2016, , .		4
66	Evaluation of a multiphysical RF MEMS oscillator based on LTE receiver performance requirements. , 2016, , .		6
67	MEMS gas ionization sensor with palladium nanostructures for use at ambient pressure. Journal of Physics: Conference Series, 2016, 757, 012023.	0.4	0
68	Scanning micromirror for large, quasi-static 2D-deflections based on electrostatic driven rotation of a hemisphere. Sensors and Actuators A: Physical, 2016, 243, 159-166.	4.1	7
69	Application of nanostructuring, nanomaterials and micro-nano-integration for improved components and system's performance., 2016,,.		0
70	Linearized control of an uniaxial micromirror with electrostatic parallel-plate actuation. Microsystem Technologies, 2016, 22, 441-447.	2.0	5
71	Experiences with software-based soft-error mitigation using AN codes. Software Quality Journal, 2016, 24, 87-113.	2.2	0
72	Design and characterization of a resonant triaxial microprobe. Journal of Micromechanics and Microengineering, 2015, 25, 125011.	2.6	13

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73	RF-MEMS-platform based on silicon-ceramic-composite-substrates. , 2015, , .		9
74	2D stepping drive for hyperspectral systems. Journal of Micromechanics and Microengineering, 2015, 25, 074002.	2.6	0
75	Multi-technology design of an integrated MEMS-based RF oscillator using a novel silicon-ceramic compound substrate., 2015,,.		6
76	FAIL*: An Open and Versatile Fault-Injection Framework for the Assessment of Software-Implemented Hardware Fault Tolerance. , $2015, , .$		42
77	Passive microsensor for binary counting of numerous threshold events. Proceedings of SPIE, 2015, , .	0.8	2
78	2D stepping microdrive for hyperspectral imaging. , 2015, , .		0
79	dOSEK: the design and implementation of a dependability-oriented static embedded kernel. , 2015, , .		19
80	Linear micromechanical stepping drive for pinhole array positioning. Journal of Micromechanics and Microengineering, 2015, 25, 055009.	2.6	2
81	A passive microsystem for detecting multiple acceleration events beyond a threshold. Microelectronic Engineering, 2015, 145, 104-111.	2.4	9
82	Chromatic confocal matrix sensor with actuated pinhole arrays. Applied Optics, 2015, 54, 4927.	2.1	24
83	Electrostatic parallel-plate MEMS switch on silicon-ceramic-composite-substrates., 2015,,.		5
84	Cross-Kernel Control-FlowGraph Analysis for Event-Driven Real-Time Systems., 2015,,.		14
85	Novel Approaches Towards Highly Selective Self-Powered Gas Sensors. Procedia Engineering, 2015, 120, 623-627.	1.2	5
86	Self-sufficient sensor for oxygen detection in packaging via radio-frequency identification. Journal of Sensors and Sensor Systems, 2015, 4, 179-186.	0.9	8
87	Radio Frequency Microelectromechanical System-Platform Based on Silicon-Ceramic Composite Substrates. Journal of Microelectronics and Electronic Packaging, 2015, 12, 37-42.	0.7	8
88	dOSEK: Maßgeschneiderte ZuverlÃssigkeit. Informatik Aktuell, 2015, , 69-78.	0.6	0
89	Tunable anamorphotic imaging system based on fluidic cylindrical lenses. , 2014, , .		0
90	Semi-contact measurements of three-dimensional surfaces utilizing a resonant uniaxial microprobe. Measurement Science and Technology, 2014, 25, 064012.	2.6	10

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91	A Practitioner's Guide to Software-Based Soft-Error Mitigation Using AN-Codes. , 2014, , .		16
92	Compact hyperchromatic imaging systems based on tunable optical microsystems. , 2014, , .		0
93	Linear stepping microactuator for hyperspectral systems. , 2014, , .		1
94	Quasi-static micromirror with enlarged deflection based on aluminum nitride thin film springs. Sensors and Actuators A: Physical, 2014, 210, 165-174.	4.1	8
95	Multifunctional nanoanalytics and long-range scanning probe microscope using a nanopositioning and nanomeasuring machine. Measurement Science and Technology, 2014, 25, 044006.	2.6	10
96	Effectiveness of Fault Detection Mechanisms in Static and Dynamic Operating System Designs. , 2014, , .		13
97	Infrared emitting nanostructures for highly efficient microhotplates. Journal of Micromechanics and Microengineering, 2014, 24, 035014.	2.6	21
98	Interaction Mechanisms of Ammonia and Tin Oxide: A Combined Analysis Using Single Nanowire Devices and DFT Calculations. Journal of Physical Chemistry C, 2013, 117, 3520-3526.	3.1	52
99	Heterostructured p-CuO (nanoparticle)/n-SnO2 (nanowire) devices for selective H2S detection. Sensors and Actuators B: Chemical, 2013, 181, 130-135.	7.8	148
100	dOSEK: A Dependable RTOS for Automotive Applications. , 2013, , .		5
101	Variation of the intrinsic stress gradient in thin aluminum nitride films. Journal of Micromechanics and Microengineering, 2013, 23, 095030.	2.6	23
102	Aluminum nitride supported 1D micromirror with static rotation angle > $11\hat{A}^{\circ}$. Proceedings of SPIE, 2013, , .	0.8	1
103	Tunable cylindrical microlenses based on aluminum nitride membranes. , 2013, , .		4
104	Imaging Systems with Aspherically Tunable Micro-optical Elements., 2013,,.		2
105	Optical scanners based on thermo-optical tuning of an integrated-optical waveguide mode. Proceedings of SPIE, 2013, , .	0.8	0
106	MOEMS tunable microlens made of aluminum nitride membranes. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2013, 12, 023012.	0.9	10
107	Resonant probing system comprising a high accurate uniaxial nanoprobe and a new evaluation unit. Journal of Micromechanics and Microengineering, 2013, 23, 095012.	2.6	5
108	Selected papers from the 23rd MicroMechanics and Microsystems Europe Workshop (MME 2012) (Ilmenau, Germany, September 9–12, 2012). Journal of Micromechanics and Microengineering, 2013, 23, 070201.	2.6	0

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109	Online monitoring of the passivation breakthrough during deep reactive ion etching of silicon using optical plasma emission spectroscopy. Journal of Micromechanics and Microengineering, 2013, 23, 074001.	2.6	5
110	A JVM for soft-error-prone embedded systems. , 2013, , .		6
111	Advanced phase plates for confocal hyperspectral imaging systems. , 2013, , .		3
112	Proof of concept for energy harvesting using piezoelectric microstructures for intelligent implants using eye-motion classified with the Integrated Eyetracker. IFMBE Proceedings, 2013, , 1397-1400.	0.3	3
113	Planar plano-convex microlens in silica using ICP-CVD and DRIE. Proceedings of SPIE, 2012, , .	0.8	2
114	Eliminating Single Points of Failure in Software-Based Redundancy. , 2012, , .		25
115	Non-electrical-power temperature-time integrating sensor for RFID based on microfluidics. Proceedings of SPIE, $2011,\ldots$	0.8	2
116	Airborne particle generation for optical tweezers by thermo-mechanical membrane actuators. Proceedings of SPIE, 2011, , .	0.8	0
117	Tunable refractive beam steering using aluminum nitride thermal actuators. , 2011, , .		4
118	Integration of 3-D cell cultures in fluidic microsystems for biological screenings. Engineering in Life Sciences, 2011, 11, 140-147.	3.6	8
119	Liquidâ€Crystalline Elastomer Microvalve for Microfluidics. Advanced Materials, 2011, 23, 4526-4530.	21.0	113
120	Development of a Miniaturized Multisensory Positioning Device for Laser Dicing Technology. Physics Procedia, 2011, 12, 387-395.	1.2	8
121	AlN-based piezoelectric bimorph microgenerator utilizing low-level non-resonant excitation. Proceedings of SPIE, 2011, , .	0.8	4
122	Formation of silicon grass: Nanomasking by carbon clusters in cyclic deep reactive ion etching. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 011002.	1.2	29
123	Tunable compound eye cameras. , 2010, , .		6
124	Investigation of nano-patterned PZT thin films by piezoresponse force microscopy. , 2010, , .		0
125	A modular BioMEMS platform for new procedures and experiments in tissue engineering. Journal of Micromechanics and Microengineering, 2009, 19, 074013.	2.6	6
126	Photoâ€Crosslinked Sideâ€Chain Liquidâ€Crystalline Elastomers for Microsystems. Macromolecular Chemistry and Physics, 2009, 210, 1671-1677.	2.2	90

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127	Aluminum nitride based 3D, piezoelectric, tactile sensor. Procedia Chemistry, 2009, 1, 144-147.	0.7	22
128	Microsystems for the Characterization of 3D-ECM Analogous Bio-Interfaces. IFMBE Proceedings, 2009, , 94-97.	0.3	2
129	Miniaturized Embossed Low Resistance Fine Line Coils in LTCC. Journal of Microelectronics and Electronic Packaging, 2009, 6, 42-48.	0.7	5
130	Hydrophobic coating of microfluidic chips structured by SU-8 polymer for segmented flow operation. Journal of Micromechanics and Microengineering, 2008, 18, 055019.	2.6	15
131	Systematic Characterization of Embossing Processes for LTCC Tapes. Journal of Microelectronics and Electronic Packaging, 2008, 5, 142-149.	0.7	6
132	Parameter Identification on Wafer Level of Membrane Structures., 2007,,.		1
133	Suspended nanowire web. Applied Physics Letters, 2007, 90, 101504.	3.3	12
134	Nanowire-based electromechanical biomimetic sensor. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 37, 208-211.	2.7	16
135	Growth of silicon nanowires on UV-structurable glass using self-organized nucleation centres. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 38, 40-43.	2.7	3
136	Bonding of silicon with filled and unfilled polymers based on black silicon. Micro and Nano Letters, 2007, 2, 6.	1.3	13
137	3D-fibre channels in silicon by electrical breakdownâ€"New opportunities for optical fibre alignment and microfluidics. AEU - International Journal of Electronics and Communications, 2007, 61, 172-176.	2.9	0
138	Techniques in the Design and Fabrication of Optical MEMS Switches and their Application in Optical Communication Systems. , 2006 , , $1508-1586$.		0
139	Megasonic enhanced KOH etching for {110} silicon bulk micromachining., 2004, 5602, 27.		2
140	An Overview of the Workshop "Optical MEMS and Integrated Optics", Dortmund, 11th - 12th June 2001. Microsystem Technologies, 2003, 9, 285-285.	2.0	0
141	Fibre-optical MEMS switches based on bulk silicon micromachining. Microsystem Technologies, 2003, 9, 299-303.	2.0	11
142	An electrostatically actuated 1 x 2 moving-fiber switch. IEEE Photonics Technology Letters, 2003, 15, 39-41.	2. 5	8
143	Bulk silicon micromachining for MEMS in optical communication systems. Journal of Micromechanics and Microengineering, 2002, 12, 349-360.	2.6	67
144	<title>Silicon planar parabolic lenses</title> ., 2001, 4145, 285.		37

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145	New silicon-based fibre assemblies for applications in integrated optics and optical MEMS. Applied Physics B: Lasers and Optics, 2001, 73, 629-633.	2.2	5
146	Holographic X-ray optical elements: transition between refraction and diffraction. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 467-468, 982-985.	1.6	23
147	Silicon planar refractive lenses with the optimized design. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 470, 131-134.	1.6	6
148	Electrostatic parallel-plate actuators with large deflections for use in optical moving-fibre switches. Journal of Micromechanics and Microengineering, 2001, 11, 323-328.	2.6	34
149	<title>Latching-type 2x2 and 1x4 fiber-optic switches</title> ., 2000,,.		0
150	X-ray focusing by planar parabolic refractive lenses made of silicon. Optics Communications, 2000, 177, 33-38.	2.1	63
151	Coupled U-shaped cantilever actuators for $1\tilde{A}$ —4 and $2\tilde{A}$ —2 optical fibre switches. Journal of Micromechanics and Microengineering, 2000, 10, 260-264.	2.6	27
152	X-ray refractive planar lens with minimized absorption. Applied Physics Letters, 2000, 77, 4058-4060.	3.3	163
153	Fiber ribbon alignment structures based on rhombus-shaped channels in silicon. IEEE Photonics Technology Letters, 2000, 12, 828-830.	2.5	4
154	Bistable micromechanical fiber-optic switches on silicon with thermal actuators. Sensors and Actuators A: Physical, 1999, 78, 28-35.	4.1	61
155	Optical fibre switches based on full wafer silicon micromachining. Journal of Micromechanics and Microengineering, 1999, 9, 151-155.	2.6	31
156	All-silicon bistable micromechanical fiber switch based on advanced bulk micromachining. IEEE Journal of Selected Topics in Quantum Electronics, 1999, 5, 46-51.	2.9	64
157	Thermooptical digital switch arrays in silica-on-silicon with defined zero-voltage state. Journal of Lightwave Technology, 1998, 16, 395-400.	4.6	45
158	All-silicon bistable micromechanical fibre switches. Electronics Letters, 1998, 34, 207.	1.0	25
159	Low-loss fiber-matched low-temperature PECVD waveguides with small-core dimensions for optical communication systems. IEEE Photonics Technology Letters, 1997, 9, 1238-1240.	2.5	53
160	Micromechanical cantilever resonators with integrated optical interrogation. Sensors and Actuators A: Physical, 1994, 44, 71-75.	4.1	16
161	Electrostatically actuated moving-fibre switch. , 0, , .		0
162	A Fabrication Process for Nanopatterns Shrinkage with Variable Sizes for Large Area., 0,,.		0