

# Toshiyuki Tsuchiya

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

199 papers	1,652 citations	19 h-index	35 g-index
250 ext. papers	1,955 ext. citations	1.8 avg, IF	4.55 L-index

#	Paper	IF	Citations
199	Effect of fabrication process on fracture strength and fatigue life of micromirrors made from single-crystal silicon. <i>International Journal of Fatigue</i> , <b>2022</b> , 162, 106983	5	
198	Uniform needle-emitter arrays for ionic liquid electrospray thrusters with precise thrust control. <i>Japanese Journal of Applied Physics</i> , <b>2021</b> , 60, SCCL06	1.4	0
197	Piezoelectric Disk Gyroscope Fabricated With Single-Crystal Lithium Niobate. <i>Journal of Microelectromechanical Systems</i> , <b>2021</b> , 30, 384-391	2.5	1
196	A Design Method of Organ-on-a-Chip with Highly Accurate Measurement of Trans-Epithelial Electrical Resistance. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2021</b> , 141, 237-244	0.2	
195	Fracture behavior of single-crystal silicon microstructure coated with stepwise bias-graded a-C:H film. <i>Surface and Coatings Technology</i> , <b>2021</b> , 405, 126559	4.4	3
194	Design strategy of electrode patterns based on finite element analysis in microfluidic device for Trans-Epithelial Electrical Resistance (TEER) measurement. <i>Electronics and Communications in Japan</i> , <b>2021</b> , 104, e12296	0.4	1
193	Microfabricated alkali metal vapor cells filled with an on-chip dispensing component. <i>Japanese Journal of Applied Physics</i> , <b>2021</b> , 60, SCCL01	1.4	0
192	Effect of alternating a-C:H multilayer full coating on fracture behavior of single-crystal silicon-based microstructure in tensile and toughness tests. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2021</b> , 827, 142054	5.3	0
191	Single-Crystal Lithium Niobate Piezoelectric Disk Gyroscope <b>2020</b> ,		2
190	Scale-factor analysis of a geometrically compensated (100) single-crystal silicon vibratory ring gyroscope <b>2020</b> ,		1
189	Electrode Design of Single Crystal Lithium Niobate Piezoelectric Disk Gyroscope <b>2020</b> ,		1
188	Design Strategy of Electrode Patterns Based on Finite Element Analysis in Microfluidic Device for Trans-Epithelial Electrical Resistance (TEER) Measurement. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2020</b> , 140, 285-292	0.2	1
187	Laser-driven optothermal microactuator operated in water. <i>Applied Optics</i> , <b>2020</b> , 59, 1627-1632	1.7	2
186	Surface-enhanced Raman spectroscopy with gold nanoparticle dimers created by sacrificial DNA origami technique. <i>Micro and Nano Letters</i> , <b>2020</b> , 15, 384-389	0.9	2
185	Spin transport in a lateral spin valve with a suspended Cu channel. <i>Scientific Reports</i> , <b>2020</b> , 10, 10699	4.9	2
184	A Planar Single-Actuator Bi-Stable Switch Based on Latch-Lock Mechanism <b>2019</b> ,		1
183	Novel microfluidic device integrated with a fluidic-capacitor to mimic heart beating for generation of functional liver organoids. <i>Electronics and Communications in Japan</i> , <b>2019</b> , 102, 41-49	0.4	2

182	Geometrical compensation for mode-matching of a (100) silicon ring resonator for a vibratory gyroscope. <i>Japanese Journal of Applied Physics</i> , <b>2019</b> , 58, SDDL06	1.4	5
181	Ferroelectric Extended Nanofluidic Channels for Room-Temperature Microfuel Cells. <i>Advanced Materials Technologies</i> , <b>2019</b> , 4, 1900252	6.8	1
180	Specific Binding of DNA Origami on a Nanoscale Pattern Formed by AFM Lithography. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2019</b> , 139, 95-102	0.2	
179	Novel Microfluidic Device Integrated with a Fluidic-Capacitor to Mimic Heart Beating for Generation of Functional Liver Organoids. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2019</b> , 139, 209-216	0.2	
178	Fracture strength of silicon torsional mirror resonators fully coated with submicrometer-thick PECVD DLC film. <i>Sensors and Actuators A: Physical</i> , <b>2019</b> , 286, 28-34	3.9	6
177	Effect of substrate bias voltage on tensile properties of single crystal silicon microstructure fully coated with plasma CVD diamond-like carbon film. <i>Applied Surface Science</i> , <b>2018</b> , 443, 48-54	6.7	7
176	Mathematical Modeling and Analysis of MEMS Deformable Mirror Actuated by Electrostatic Piston Array. <i>Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi)</i> , <b>2018</b> , 204, 50-60	0.4	
175	Tensile Strength of Silicon Nanowires Batch-Fabricated into Electrostatic MEMS Testing Device. <i>Applied Sciences (Switzerland)</i> , <b>2018</b> , 8, 880	2.6	12
174	High-Yield Bridged Assembly of ssDNA-Modified SWCNT Using Dielectrophoresis. <i>International Journal of Automation Technology</i> , <b>2018</b> , 12, 29-36	0.8	1
173	Mathematical Modeling and Analysis of MEMS Deformable Mirror Actuated by Electrostatic Piston Array. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2018</b> , 138, 66-73	0.2	0
172	Revealing the Influential Factor on Dimerizing of Triangular DNA Origami by Linker. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2018</b> , 138, 171-177	0.2	
171	Rhombic-Shaped Nanostructures and Mechanical Properties of 2D DNA Origami Constructed with Different Crossover/Nick Designs. <i>Small</i> , <b>2018</b> , 14, 1702028	11	3
170	Numerical Investigation of Steady and Transient Ion Beam Extraction Mechanisms for Electrospray Thrusters. <i>Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan</i> , <b>2018</b> , 16, 110-115	0.3	3
169	Microchannel Fabrication Using A Photo-Patternable Adhesive Material for Recording Conformational Changes of KcsA Channel with the Diffracted X-ray Tracking Method. <i>Proceedings (mdpi)</i> , <b>2018</b> , 2, 972	0.3	0
168	Tuning porosity and radial mechanical properties of DNA origami nanotubes via crossover design. <i>Japanese Journal of Applied Physics</i> , <b>2017</b> , 56, 06GJ02	1.4	5
167	Tensile test of a silicon microstructure fully coated with submicrometer-thick diamond like carbon film using plasma enhanced chemical vapor deposition method. <i>Japanese Journal of Applied Physics</i> , <b>2017</b> , 56, 06GN01	1.4	3
166	Integrated heart/cancer on a chip to reproduce the side effects of anti-cancer drugs in vitro. <i>RSC Advances</i> , <b>2017</b> , 7, 36777-36786	3.7	60
165	MEMS mirrors for automotive applications <b>2017</b> ,		3

164	Special issue on transducers and micro-nano technology. <i>Journal of Micromechanics and Microengineering</i> , <b>2017</b> , 27, 070301	2	
163	Measurement and potential barrier evolution analysis of cold field emission in fracture fabricated Si nanogap. <i>Japanese Journal of Applied Physics</i> , <b>2017</b> , 56, 06GF06	1.4	1
162	Dry etching and low-temperature direct bonding process of lithium niobate wafer for fabricating micro/nano channel device <b>2017</b> ,		5
161	Microfabricated emitter array for an ionic liquid electrospray thruster. <i>Japanese Journal of Applied Physics</i> , <b>2017</b> , 56, 06GN18	1.4	13
160	Formation of gold nanoparticle dimers on silicon by sacrificial DNA origami technique. <i>Micro and Nano Letters</i> , <b>2017</b> , 12, 854-859	0.9	5
159	Microfabrication of Embedding a Flexible Parylene-Based Microelectrode Array within Body-on-a-Chip. <i>Proceedings (mdpi)</i> , <b>2017</b> , 1, 302	0.3	2
158	Effect of localized KrF excimer laser treatment on fracture behaviors of freestanding and single crystal silicon beams. <i>Microsystem Technologies</i> , <b>2016</b> , 22, 379-386	1.7	0
157	Fracture behavior of single crystal silicon with thermal oxide layer. <i>Engineering Fracture Mechanics</i> , <b>2016</b> , 163, 523-532	4.2	4
156	Time-Resolved Micro-Raman Stress Spectroscopy for Single-Crystal Silicon Resonators Using a MEMS Optical Chopper. <i>Journal of Microelectromechanical Systems</i> , <b>2016</b> , 25, 188-196	2.5	3
155	Development of a Body-on-a-Chip Using 3-D Microstructuring Technique. <i>IEEE Transactions on Sensors and Micromachines</i> , <b>2016</b> , 136, 229-236	0.2	
154	Thermomechanical noise evaluation of capacitive MEMS accelerometer array with sub-micrometer gap. <i>The Proceedings of the Dynamics &amp; Design Conference</i> , <b>2016</b> , 2016, 520	0	
153	Graphene film development on flexible substrate using a new technique: temperature dependency of gauge factor for graphene-based strain sensors. <i>Sensor Review</i> , <b>2016</b> , 36, 140-147	1.4	16
152	Investigation of the self-assembly process for discrete and polymerized bivalve DNA origami structures. <i>IEEE Transactions on Electrical and Electronic Engineering</i> , <b>2016</b> , 11, S164	1	1
151	Constructing higher order DNA origami arrays using DNA junctions of anti-parallel/parallel double crossovers. <i>Japanese Journal of Applied Physics</i> , <b>2016</b> , 55, 06GL04	1.4	4
150	Photoresist Micro-Chamber for the Diffracted X-ray Tracking Method Recording Single-Molecule Conformational Changes. <i>Procedia Engineering</i> , <b>2016</b> , 168, 1394-1397		1
149	Crystal orientation-dependent fatigue characteristics in micrometer-sized single-crystal silicon. <i>Microsystems and Nanoengineering</i> , <b>2016</b> , 2, 16027	7.7	14
148	MEMS deformable mirror actuated by electrostatic piston array <b>2016</b> ,		2
147	Effect of Crystallographic Orientations on Fractures and Slip Occurrences at 500 °C of (110) Single Crystal Silicon Microstructures. <i>Procedia Structural Integrity</i> , <b>2016</b> , 2, 1413-1420	1	1

146	Tensile fracture of integrated single-crystal silicon nanowire using MEMS electrostatic testing device. <i>Procedia Structural Integrity</i> , <b>2016</b> , 2, 1405-1412	1	6
145	ALA-induced fluorescence detection with photoresist-based microfluidic cell sorter for bladder cancer diagnosis. <i>Sensors and Actuators B: Chemical</i> , <b>2015</b> , 213, 547-557	8.5	9
144	FET properties of single-walled carbon nanotubes individually assembled utilizing single strand DNA <b>2015</b> ,		1
143	Direct measurement of transversely isotropic DNA nanotube by force-distance curve-based atomic force microscopy. <i>Micro and Nano Letters</i> , <b>2015</b> , 10, 513-517	0.9	10
142	Multiple Patterning with Process Optimization Method for Maskless DMD-Based Grayscale Lithography. <i>Procedia Engineering</i> , <b>2015</b> , 120, 1091-1094		10
141	Microfluidic device to interconnect multiple organs via fluidic circulation: Towards body-on-a-chip <b>2015</b> ,		1
140	Direct characterization of radial modulus of DNA nanotube by AFM nanoindentation <b>2015</b> ,		2
139	High-temperature tensile testing machine for investigation of brittle-ductile transition behavior of single crystal silicon microstructure. <i>Japanese Journal of Applied Physics</i> , <b>2015</b> , 54, 06FP04	1.4	6
138	High-speed pulsed mixing in a short distance with high-frequency switching of pumping from three inlets. <i>Journal of Micromechanics and Microengineering</i> , <b>2015</b> , 25, 084003	2	1
137	Ultrasensitive surface-enhanced Raman spectroscopy using directionally arrayed gold nanoparticle dimers <b>2015</b> ,		4
136	Effect of crystallographic orientation on tensile fractures of (100) and (110) silicon microstructures fabricated from silicon-on-insulator wafers. <i>Micro and Nano Letters</i> , <b>2015</b> , 10, 678-682	0.9	3
135	Selective assembly of DNA nanostructure bridging onto a trenched silicon substrate <b>2015</b> ,		2
134	. <i>Journal of Microelectromechanical Systems</i> , <b>2015</b> , 24, 1856-1867	2.5	11
133	Surface Roughness Modification of Free Standing Single Crystal Silicon Microstructures Using KrF Excimer Laser Treatment for Mechanical Performance Improvement. <i>Journal of Surface Engineered Materials and Advanced Technology</i> , <b>2015</b> , 05, 28-41	0.2	2
132	OS1418-467 Dynamic stress measurement of single crystal silicon microstructures using micro Raman spectroscopy. <i>The Proceedings of the Materials and Mechanics Conference</i> , <b>2015</b> , 2015, _OS1418-46-_OS1418-46	0	0
131	J2210305 Crystal orientation dependence of fracture probability in single crystal silicon. <i>The Proceedings of Mechanical Engineering Congress Japan</i> , <b>2015</b> , 2015, _J2210305-_J2210305-	0	0
130	Fabrication and Characterization of Chain-like Arrangement of Gold Nanoparticles using Nanotemplates. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2015</b> , 135, 474-475	0.2	0
129	Analysis of Aggregation Reaction of Silver Nanoparticles in Microchannel for Highly Sensitive Surface-Enhanced Raman Spectroscopy. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2015</b> , 135, 433-438	0.2	0

128	Analytical investigation of the feasibility of sacrificial microchannel sealing for Chip-Scale Atomic Magnetometers. <i>Microsystem Technologies</i> , <b>2014</b> , 20, 357-365	1.7	2
127	Experimental verification of frequency decoupling effect on acceleration sensitivity in tuning fork gyroscopes using in-plane coupled resonators. <i>Microsystem Technologies</i> , <b>2014</b> , 20, 403-411	1.7	3
126	<b>2014</b> ,		3
125	Large-displacement electrostatic deformable mirror using movable bottom electrodes <b>2014</b> ,		4
124	Photoresist-based Microfluidic Cell Sorter for Photodynamic Urine Diagnosis. <i>Procedia Engineering</i> , <b>2014</b> , 87, 62-65		
123	Improvement of tensile strength of freestanding single crystal silicon microstructures using localized harsh laser treatment. <i>Japanese Journal of Applied Physics</i> , <b>2014</b> , 53, 06JM03	1.4	5
122	Effects of Etching Surface Roughness on the Fatigue Characteristics of Single-Crystal Silicon. <i>IEEE Transactions on Sensors and Micromachines</i> , <b>2014</b> , 134, 32-37	0.2	1
121	Study on Vibration-coupling Control of Out-of-plane Coupled Resonator for Anti-shock Tuning Fork Gyroscopes. <i>IEEE Transactions on Sensors and Micromachines</i> , <b>2014</b> , 134, 392-399	0.2	1
120	J2240306 Estimation of stress effects due to surface roughness on silicon micro structures. <i>The Proceedings of Mechanical Engineering Congress Japan</i> , <b>2014</b> , 2014, _J2240306--_J2240306-	0	
119	J2240106 MEMS tensile testing of silicon nanowire batch-fabricated using multi-step ICP-RIE. <i>The Proceedings of Mechanical Engineering Congress Japan</i> , <b>2014</b> , 2014, _J2240106--_J2240106-	0	
118	OS1513 Improvement of surface roughness and tensile strength of single crystal silicon microstructures using excimer laser treatment. <i>The Proceedings of the Materials and Mechanics Conference</i> , <b>2014</b> , 2014, _OS1513-1_- _OS1513-2_	0	
117	DNA origami assembly on patterned silicon by AFM based lithography <b>2013</b> ,		6
116	Rotational motion effect on sensitivity matrix of MEMS three-axis accelerometer for realization of concurrent calibration using vibration table <b>2013</b> ,		2
115	Sacrificial microchannel sealing by glass-frit reflow for chip scale atomic magnetometer. <i>Electronics and Communications in Japan</i> , <b>2013</b> , 96, 58-66	0.4	2
114	Fatigue characteristics of polycrystalline silicon thin-film membrane and its dependence on humidity. <i>Journal of Micromechanics and Microengineering</i> , <b>2013</b> , 23, 035032	2	8
113	On-chip fabrication of alkali-metal vapor cells utilizing an alkali-metal source tablet. <i>Journal of Micromechanics and Microengineering</i> , <b>2013</b> , 23, 115003	2	7
112	Effect of surface morphology and crystal orientations on fracture strength of thin film (110) single crystal silicon <b>2013</b> ,		5
111	Effect of Surface Morphology and Crystal Orientations on Tensile Fracture Property of (110) Single Crystal Silicon. <i>Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A</i> , <b>2013</b> , 79, 1191-1200		5

110	OS1211 Effect of Temperature and Humidity on Fatigue Fracture of Polysilicon Thin Films using Out-of-plane Resonant Vibration. <i>The Proceedings of the Materials and Mechanics Conference, 2013, 2013, _OS1211-1_- _OS1211-2_</i>	0	
109	Molecular Level Study of Negative Thick-Film Resist in MEMS by Employing a Coarse-Grained Molecular Dynamics Simulation. <i>IEEJ Transactions on Sensors and Micromachines, 2013, 133, 320-329</i>	0.2	
108	Self-dependent Equivalent Circuit Modeling of Electrostatic Comb Transducers for Integrated MEMS. <i>International Federation for Information Processing, 2012, 94-109</i>		1
107	Low-Cycle to Ultrahigh-Cycle Fatigue Lifetime Measurement of Single-Crystal-Silicon Specimens Using a Microresonator Test Device. <i>Journal of Microelectromechanical Systems, 2012, 21, 830-839</i>	2.5	17
106	Investigation of Molecular Diffusivity of Photoresist Membrane using Coarse-Grained Molecular Dynamics Simulation. <i>Procedia Engineering, 2012, 47, 402-405</i>		3
105	Electrostatic Tensile Testing Device With Nanonewton and Nanometer Resolution and Its Application to $C_{60}$ Nanowire Testing. <i>Journal of Microelectromechanical Systems, 2012, 21, 523-529</i>	2.5	22
104	Simulation of mechanical properties of epoxy-based chemically amplified resist by coarse-grained molecular dynamics. <i>Polymer, 2012, 53, 4834-4842</i>	3.9	17
103	Fatigue of 1 $\mu$ m-scale gold by vibration with reduced resonant frequency. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 556, 429-436</i>	5.3	13
102	Dynamic sensitivity matrix measurement for single-mass SOI 3-axis accelerometer <b>2012,</b>		5
101	Micromachined Tactile Sensor for Soft-Tissue Compliance Detection. <i>Journal of Microelectromechanical Systems, 2012, 21, 635-645</i>	2.5	23
100	Frequency response of in-plane coupled resonators for investigating the acceleration sensitivity of MEMS tuning fork gyroscopes. <i>Microsystem Technologies, 2012, 18, 797-803</i>	1.7	8
99	. <i>Journal of Microelectromechanical Systems, 2012, 21, 586-595</i>	2.5	30
98	Fatigue Testing of Polycrystalline Silicon Thin-Film Membrane Using Out-of-Plane Bending Vibration. <i>Japanese Journal of Applied Physics, 2012, 51, 11PA02</i>	1.4	2
97	Coarse-Grained Molecular Dynamics Simulation of Epoxy-Based Chemically-Amplified Resist for MEMS Application. <i>Materials Research Society Symposia Proceedings, 2012, 1415, 139</i>		1
96	Mechanical and Electrical Clamping of DEP Assembled SWCNT Using Electroless Gold Deposition. <i>IEEJ Transactions on Sensors and Micromachines, 2012, 132, 108-113</i>	0.2	1
95	Out-of-plane Bending Vibration Fracture Test of Polycrystalline Silicon Thin-film Membrane. <i>IEEJ Transactions on Sensors and Micromachines, 2012, 132, 224-229</i>	0.2	3
94	Fatigue Testing of Polycrystalline Silicon Thin-Film Membrane Using Out-of-Plane Bending Vibration. <i>Japanese Journal of Applied Physics, 2012, 51, 11PA02</i>	1.4	1
93	701 Analysis of Dynamic Cross Sensitivity of Capacitive Three-axis MEMS Accelerometer. <i>The Proceedings of the Dynamics &amp; Design Conference, 2012, 2012, _701-1_- _701-7_</i>	0	

92	Analysis of acceleration sensitivity in frequency decoupled MEMS tuning fork gyroscope. <i>Procedia Engineering</i> , <b>2011</b> , 25, 51-54		3
91	<b>2011</b> ,		1
90	Local stress analysis of single crystalline silicon resonator using micro Raman spectroscopy <b>2011</b> ,		3
89	Cross comparison of fatigue lifetime testing on silicon thin film specimens <b>2011</b> ,		5
88	Sacrificial microchannel sealing by glass-frit reflow for Chip Scale Atomic Magnetometer <b>2011</b> ,		3
87	<b>2011</b> ,		1
86	Configurable assembly of DNA origami on MEMS by microfluidic device <b>2011</b> ,		2
85	Equivalent circuit analysis of micromechanical resonator using comb transducer model with built-in displacement detection <b>2011</b> ,		1
84	Epoxy-based permeable membrane fabrication for 3D microfluidic device <b>2011</b> ,		2
83	Noise-induced chaos in the electrostatically actuated MEMS resonators. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2011</b> , 375, 2903-2910	2,3	48
82	Negative-photoresist mechanical property for nano-filtration membrane embedded in microfluidics <b>2011</b> ,		3
81	High-speed pulsed mixing with high-frequency switching of micropump driving and its application to nanoparticle synthesis <b>2011</b> ,		2
80	Nanogap-controllable self-assembly of gold nanoparticles using nanotrench template <b>2011</b> ,		1
79	Preface to the Special Issue on Process Technologies□ <i>IEEEJ Transactions on Sensors and Micromachines</i> , <b>2011</b> , 131, 1-1		0.2
78	228 Study on the Standardization of Multi-axis Inertia Sensor : 2^ report Comparison of the measurement on the sensitivity matrix. <i>The Proceedings of the Dynamics &amp; Design Conference</i> , <b>2011</b> , 2011, _228-1_- _228-10_	0	
77	Sacrificial Microchannel Sealing by Glass-Frit Reflow for Chip Scale Atomic Magnetometer. <i>IEEEJ Transactions on Sensors and Micromachines</i> , <b>2011</b> , 131, 251-257		0.2
76	DNA-grafted-polymer mediated self-assembly of micro components <b>2010</b> ,		1
75	A three-dimensional microstructuring technique exploiting the positive photoresist property. <i>Journal of Micromechanics and Microengineering</i> , <b>2010</b> , 20, 065005	2	16

74	. <i>Journal of Microelectromechanical Systems</i> , <b>2010</b> , 19, 1058-1069	2.5	18
73	Mixing speed-controlled gold nanoparticle synthesis with pulsed mixing microfluidic system. <i>Microfluidics and Nanofluidics</i> , <b>2010</b> , 9, 1165-1174	2.8	34
72	Tensile and Tensile-Mode Fatigue Testing of Microscale Specimens in Constant Humidity Environment. <i>Experimental Mechanics</i> , <b>2010</b> , 50, 509-516	2.6	22
71	Measurement of anisotropic fatigue life in micrometre-scale single-crystal silicon specimens. <i>Micro and Nano Letters</i> , <b>2010</b> , 5, 49	0.9	6
70	Embedded double-layered microchannel fabrication for microfluidic devices using developer permeability of negative thick-film resists. <i>Procedia Engineering</i> , <b>2010</b> , 5, 854-857		2
69	New compensation technique for the soft tissue stiffness measurements using two sensor probes configuration. <i>Procedia Engineering</i> , <b>2010</b> , 5, 1304-1307		
68	MNM-3A-4 Crystallographic anisotropy analysis in fracture of micro-sized (110) single crystal silicon using Weibull statistics. <i>The Proceedings of the Symposium on Micro-Nano Science and Technology</i> , <b>2010</b> , 2010.2, 149-150	0	2
67	Mixing Speed- and Temperature-Controlled Microreactor for Gold Nanoparticle Synthesis. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2010</b> , 130, 292-299	0.2	4
66	Component Modeling of 2DOF Comb Transducer for Equivalent Circuit Using Built-in Displacement Detection. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2010</b> , 130, 443-449	0.2	3
65	Effects of anisotropic elasticity on stress concentration in micro mechanical structures fabricated on (001) single-crystal silicon films. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 093524	2.5	13
64	Sequential and Selective Self-Assembly of Micro Components by DNA Grafted Polymer <b>2009</b> ,		4
63	Tensile testing of fullerene nano wire using electrostatic MEMS device <b>2009</b> ,		1
62	Free-standing C60 nanowire fabricated using XeF2 sacrificial dry etching. <i>Journal of Micro/Nanolithography, MEMS, and MOEMS</i> , <b>2009</b> , 8, 013020	0.7	2
61	A multiple Degrees of Freedom Equivalent Circuit for a Comb-Drive Actuator. <i>Japanese Journal of Applied Physics</i> , <b>2009</b> , 48, 124504	1.4	15
60	Design and fabrication of a differential capacitive three-axis SOI accelerometer using vertical comb electrodes. <i>IEEJ Transactions on Electrical and Electronic Engineering</i> , <b>2009</b> , 4, 345-351	1	9
59	Development and experimental validation of automatic conversion procedure from mechanical to electrical connection for MEMS equivalent circuit. <i>IEEJ Transactions on Electrical and Electronic Engineering</i> , <b>2009</b> , 4, 352-357	1	4
58	Micro machined tactile sensor for soft tissue compliance detection. <i>Procedia Chemistry</i> , <b>2009</b> , 1, 84-87		6
57	Capacitive micromachined ultrasonic transducers with novel membrane design. <i>Procedia Chemistry</i> , <b>2009</b> , 1, 389-392		3

56	Parameter optimization method for fabricating 3D microstructures embedded in single-layer negative-tone photoresist <b>2009</b> ,		2
55	Micro/nanoimprinting of glass under high temperature using a CVD diamond mold. <i>Journal of Micromechanics and Microengineering</i> , <b>2008</b> , 18, 065013	2	19
54	Fabrication of free-standing fullerene nanowire using direct electron beam writing and sacrificial dry etching. <i>Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS)</i> , <b>2008</b> ,		3
53	Manipulation system for nano/micro components integration via transportation and self-assembly. <i>Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS)</i> , <b>2008</b> ,		4
52	. <i>Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS)</i> , <b>2008</b> ,		4
51	High-cycle fatigue of micromachined single-crystal silicon measured using high-resolution patterned specimens. <i>Journal of Micromechanics and Microengineering</i> , <b>2008</b> , 18, 075004	2	20
50	Crystal orientation dependence of fatigue characteristics in single crystal silicon measured using a rotating micro resonator. <i>Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS)</i> , <b>2008</b> ,		3
49	DNA Mediated Sequential Self-assembly of Au Nano-particles. <i>Journal of the Society of Powder Technology, Japan</i> , <b>2008</b> , 45, 156-161	0.3	
48	Design Construction of Beam Structured Vertical Drive SMA Thin Film Actuator for Small Tactile Display. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2008</b> , 128, 151-160	0.2	6
47	Design and Simulation of a Tactile Sensor for Soft-Tissue Compliance Detection. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2008</b> , 128, 186-192	0.2	6
46	Silicon and Related Materials <b>2008</b> , 1-23		1
45	Design of A Soft X-ray Source with Periodic Microstructure Using Resonance Transition Radiation for Tabletop Synchrotron. <i>IEEJ Transactions on Electrical and Electronic Engineering</i> , <b>2008</b> , 3, 268-273	1	
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42	Air Damping in a Fan-Shaped Rotational Resonator with Comb Electrodes. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2008</b> , 128, 203-208	0.2	
41	Moving mask UV lithography for three-dimensional structuring. <i>Journal of Micromechanics and Microengineering</i> , <b>2007</b> , 17, 199-206	2	98
40	Reliability of a Capacitive Pressure Sensor. <i>Advanced Micro &amp; Nanosystems</i> , <b>2007</b> , 185-203		
39	Reliability of MEMS Variable Optical Attenuator. <i>Advanced Micro &amp; Nanosystems</i> , <b>2007</b> , 239-266		1

38	Eco Scan MEMS Resonant Mirror. <i>Advanced Micro &amp; Nanosystems</i> , <b>2007</b> , 267-290		
37	On-Chip Testing of MEMS. <i>Advanced Micro &amp; Nanosystems</i> , <b>2007</b> , 163-183		
36	Analysis of Valveless Piezoelectric Micropump using Electrical Equivalent Circuit Model <b>2007</b> ,		5
35	Moving-Mask UV Lithography for 3-Dimensional Positive-And Negative-Tone Thick Photoresist Microstructuring <b>2007</b> ,		2
34	Temperature Controlled Capillary Driven Sequential Stacking Self-Assembly using Two Different Adhesives <b>2007</b> ,		1
33	. <i>Journal of Microelectromechanical Systems</i> , <b>2007</b> , 16, 746-752	2.5	15
32	Effect of Surface Oxide Layer on Mechanical Properties of Single Crystalline Silicon. <i>Materials Research Society Symposia Proceedings</i> , <b>2007</b> , 1052, 1		0
31	Elastoplastic Indentation Contact Mechanics of Homogeneous Materials and CoatingSubstrate Systems. <i>Advanced Micro &amp; Nanosystems</i> , <b>2007</b> , 27-65		0
30	Uniaxial Tensile Test for MEMS Materials. <i>Advanced Micro &amp; Nanosystems</i> , <b>2007</b> , 123-161		1
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28	High-Accuracy, High-Reliability MEMS Accelerometer. <i>Advanced Micro &amp; Nanosystems</i> , <b>2007</b> , 225-237		
27	Thin-Film Characterization Using the Bulge Test. <i>Advanced Micro &amp; Nanosystems</i> , <b>2007</b> , 67-121		12
26	High-cycle fatigue of micromachined single crystal silicon measured using a parallel fatigue test system. <i>IEICE Electronics Express</i> , <b>2007</b> , 4, 288-293	0.5	11
25	Inertial Sensors. <i>Advanced Micro &amp; Nanosystems</i> , <b>2007</b> , 205-223		0
24	A Differential Capacitive Three-Axis SOI Accelerometer using Vertical Comb Electrodes <b>2007</b> ,		16
23	Sequential Stacking Self-Assembly using Interfacial Tension of Two Different Droplets. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2007</b> , 127, 214-220	0.2	
22	Material Properties: Measurement and Data <b>2006</b> , 53-92		
21	Material Properties <b>2006</b> , 53-92		1

20	Cross comparison of thin-film tensile-testing methods examined using single-crystal silicon, polysilicon, nickel, and titanium films. <i>Journal of Microelectromechanical Systems</i> , <b>2005</b> , 14, 1178-1186	2.5	66
19	Tensile testing of silicon thin films. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , <b>2005</b> , 28, 665-674	3	23
18	Young's modulus, fracture strain, and tensile strength of sputtered titanium thin films. <i>Thin Solid Films</i> , <b>2005</b> , 484, 245-250	2.2	60
17	Reliability Characterization of MEMS Materials. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2005</b> , 125, 289-293	0.2	7
16	A z-axis differential capacitive SOI accelerometer with vertical comb electrodes. <i>Sensors and Actuators A: Physical</i> , <b>2004</b> , 116, 378-383	3.9	47
15	Characteristics of Grain Boundaries in Polycrystalline Si Films fabricated by Chemical Vapor Deposition and Subsequent Annealing. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2004</b> , 124, 14-20 <sup>0.2</sup>		
14	Young's Modulus Measurement for Polysilicon Thin Film by Tensile Testing. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2003</b> , 123, 577-582	0.2	3
13	Tensile testing system for sub-micrometer thick films. <i>Sensors and Actuators A: Physical</i> , <b>2002</b> , 97-98, 492-496	3.9	22
12	Formation of porous grain boundaries in polycrystalline silicon thin films. <i>Journal of Applied Physics</i> , <b>2002</b> , 91, 9408-9413	2.5	4
11	Polysilicon vibrating gyroscope vacuum-encapsulated in an on-chip micro chamber. <i>Sensors and Actuators A: Physical</i> , <b>2001</b> , 90, 49-55	3.9	47
10	Tensile Test of Bulk- and Surface-Micromachined 0.1- $\mu$ m Thick Silicon Film using Electrostatic Force Grip System. <i>Materials Research Society Symposia Proceedings</i> , <b>2001</b> , 687, 1		1
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8	Tensile testing of insulating thin films; humidity effect on tensile strength of SiO <sub>2</sub> films. <i>Sensors and Actuators A: Physical</i> , <b>2000</b> , 82, 286-290	3.9	72
7	Vibrating gyroscope consisting of three layers of polysilicon thin films. <i>Sensors and Actuators A: Physical</i> , <b>2000</b> , 82, 114-119	3.9	11
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4	Specimen size effect on tensile strength of surface-micromachined polycrystalline silicon thin films. <i>Journal of Microelectromechanical Systems</i> , <b>1998</b> , 7, 106-113	2.5	272
3	Tensile Strength and Fracture Toughness of Surface Micromachined Polycrystalline Silicon Thin Films Prepared Under Various Conditions. <i>Materials Research Society Symposia Proceedings</i> , <b>1997</b> , 505, 285		24

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1	Integrated gutLiver-on-a-chip platform as an in vitro human model of non-alcoholic fatty liver disease		1