

Woo-Tae Park

List of Publications by Year in descending order

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86
papers

3,070
citations

430442

18
h-index

174990

52
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86
all docs

86
docs citations

86
times ranked

3872
citing authors

#	ARTICLE	IF	CITATIONS
1	Biomimetic Flow Sensor for Detecting Flow Rate and Direction as an Application for Maneuvering Autonomous Underwater Vehicle. International Journal of Precision Engineering and Manufacturing - Green Technology, 2022, 9, 163-173.	2.7	9
2	A polymer membrane electrolysis micropump powered by a compact wireless power transmission system. Journal of Mechanical Science and Technology, 2021, 35, 697-706.	0.7	4
3	Fabrication method of multi-depth circular microchannels for investigating arterial thrombosis-on-a-chip. Sensors and Actuators B: Chemical, 2020, 321, 128590.	4.0	12
4	Rapid biodegradable microneedles with allergen reservoir for skin allergy test. Micro and Nano Systems Letters, 2020, 8, .	1.7	10
5	MEMS particle sensor based on resonant frequency shifting. Micro and Nano Systems Letters, 2020, 8, .	1.7	10
6	Bio-Inspired Barbed Microneedle for Skin Adhesion with Interlocking Mechanics. , 2019, , .		3
7	A Bioinspired Piezoelectric Cilia Array for Sensing of Hydrodynamic Flow. , 2019, , .		2
8	A compact wireless power transfer system at 915â€‰%MHz with supercapacitor for optogenetics applications. Sensors and Actuators A: Physical, 2019, 285, 386-394.	2.0	14
9	Rapid and Versatile Micromold Fabrication Using Micromilling and Nanopolishing for Microfluidic Devices. , 2019, , .		0
10	Immobilization of Magnetic Beads for Microfluidic Immunoassays. , 2019, , .		0
11	Novel circular microchannels fabrication method for artery thrombosis investigation. , 2018, , .		0
12	MEMS PZT Oscillating Platform for Fine Dust Particle Removal at Resonance. International Journal of Precision Engineering and Manufacturing, 2018, 19, 1851-1859.	1.1	8
13	UV-LEDs for the Disinfection and Bio-Sensing Applications. International Journal of Precision Engineering and Manufacturing, 2018, 19, 1901-1915.	1.1	17
14	Analysis of Laser Sintering of Zirconia to Magnesium Alloy by Laser-Induced Plasma Spectroscopy. Nanoscience and Nanotechnology Letters, 2018, 10, 790-795.	0.4	2
15	Application of Laser-Induced Plasma Spectroscopy to Diffusion of Cu/Snâ€‰%Pb Metal Composites. Nanoscience and Nanotechnology Letters, 2018, 10, 682-687.	0.4	0
16	RF power harvesting: a review on designing methodologies and applications. Micro and Nano Systems Letters, 2017, 5, .	1.7	187
17	Artificial hair cell flow sensor with ball joint. , 2017, , .		0
18	Rapid, low-cost fabrication of circular microchannels by air expansion into partially cured polymer. Sensors and Actuators B: Chemical, 2016, 235, 302-308.	4.0	22

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19	A microfabricated neural probe with porous si-parylene hybrid structure to enable a reliable brain-machine interface. , 2016, , .		1
20	Micro-ultrasonic welding using thermoplastic-elastomeric composite film. Journal of Materials Processing Technology, 2016, 236, 183-188.	3.1	17
21	Polymeric Biomaterials for Medical Implants and Devices. ACS Biomaterials Science and Engineering, 2016, 2, 454-472.	2.6	524
22	Microfabricated porous silicon backbone for stable neural interfaces. Materials Letters, 2016, 165, 119-122.	1.3	6
23	MEMS Packaging. , 2016, , 2019-2028.		1
24	Wireless sensor microsystems for emerging biomedical applications (Invited). , 2015, , .		2
25	Rapid, low cost fabrication of circular cross-section microchannels by thermal air molding. , 2015, , .		2
26	Surface Characteristics, Biodegradability and Biocompatibility of Porous Silicon for Microfabricated Neural Electrode. Journal of Nanoscience and Nanotechnology, 2015, 15, 2821-2828.	0.9	2
27	Real-time precision pedestrian navigation solution using Inertial Navigation System and Global Positioning System. Advances in Mechanical Engineering, 2015, 7, 168781401456850.	0.8	11
28	Modeling in vitro neural electrode interface in neural cell culture medium. Microsystem Technologies, 2015, 21, 1739-1747.	1.2	5
29	A Microfluidic Chip-Based Creatinine Filtration Device. Transactions of the Korean Society of Mechanical Engineers, B, 2015, 39, 921-925.	0.0	0
30	Silicon nanowire-based ring-shaped tri-axial force sensor for smart integration on guidewire. Journal of Micromechanics and Microengineering, 2014, 24, 065002.	1.5	10
31	Biotin-Streptavidin Binding Interactions of Dielectric Filled Silicon Bulk Acoustic Resonators for Smart Label-Free Biochemical Sensor Applications. Sensors, 2014, 14, 4585-4598.	2.1	7
32	Drug release from porous silicon for stable neural interface. Applied Surface Science, 2014, 292, 843-851.	3.1	10
33	A study of piezoelectric harvesters for low-level vibrations in wireless sensor networks. International Journal of Precision Engineering and Manufacturing, 2013, 14, 1257-1262.	1.1	32
34	A flexible polyimide cable for implantable neural probe arrays. Microsystem Technologies, 2013, 19, 1111-1118.	1.2	11
35	MEMS tri-axial force sensor with an integrated mechanical stopper for guidewire applications. Microsystem Technologies, 2013, 19, 1005-1015.	1.2	25
36	A low-profile three-dimensional neural probe array using a silicon lead transfer structure. Journal of Micromechanics and Microengineering, 2013, 23, 095013.	1.5	13

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37	Cytocompatibility Assessment of Si, Plasma Enhanced Chemical Vapor Deposition-Formed SiO ₂ and Si ₃ N ₄ Used for Neural Prosthesis: A Comparative Study. <i>Nanoscience and Nanotechnology Letters</i> , 2013, 5, 916-920.	0.4	3
38	Cantilever Structural Analysis for Optimal Piezoelectric Power Harvesting. <i>Journal of the Microelectronics and Packaging Society</i> , 2013, 20, 31-34.	0.1	0
39	A Four-point Bending Probe Station for Semiconductor Sensor Piezoresistance Measurement. <i>Journal of the Microelectronics and Packaging Society</i> , 2013, 20, 35-39.	0.1	0
40	Tunable piezoresistance and noise in gate-all-around nanowire field-effect-transistor. <i>Applied Physics Letters</i> , 2012, 100, 063106.	1.5	13
41	Characterization of Piezoresistive-Si-Nanowire-Based Pressure Sensors by Dynamic Cycling Test With Extralarge Compressive Strain. <i>IEEE Transactions on Electron Devices</i> , 2012, 59, 3097-3103.	1.6	28
42	100-Channel wireless neural recording system with 54-Mb/s data link and 40%-efficiency power link. , 2012, , .		18
43	Characterization of a multi-layered MEMS pressure sensor using piezoresistive silicon nanowire within large measurable strain range. , 2012, , .		0
44	Characterization of Si nanowires-based piezoresistive pressure sensor by dynamic cycling test. , 2012, , .		1
45	A wirelessly powered and interrogated blood flow monitoring microsystem fully integrated with a prosthetic vascular graft for early failure detection. , 2012, , .		6
46	Optimization of NEMS pressure sensors with a multilayered diaphragm using silicon nanowires as piezoresistive sensing elements. <i>Journal of Micromechanics and Microengineering</i> , 2012, 22, 055012.	1.5	58
47	A CMOS Rectifier With a Cross-Coupled Latched Comparator for Wireless Power Transfer in Biomedical Applications. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2012, 59, 409-413.	2.2	109
48	High sensitive dielectric filled Lamã© mode mass sensor. <i>Sensors and Actuators A: Physical</i> , 2012, 188, 82-88.	2.0	16
49	An Inductively Powered Implantable Blood Flow Sensor Microsystem for Vascular Grafts. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 2466-2475.	2.5	52
50	Piezoresistive Sensing Performance of Junctionless Nanowire FET. <i>IEEE Electron Device Letters</i> , 2012, 33, 1759-1761.	2.2	16
51	Characterization of a silicon nanowire-based cantilever air-flow sensor. <i>Journal of Micromechanics and Microengineering</i> , 2012, 22, 095008.	1.5	17
52	Minimum detectable strain improvement in junctionless nanowire FET sensors. , 2012, , .		1
53	Simulation of train induced forced wind draft for generating electrical power from Vertical Axis Wind Turbine (VAWT). <i>International Journal of Precision Engineering and Manufacturing</i> , 2012, 13, 1177-1181.	1.1	18
54	Implantable Polyimide Cable for Multichannel High-Data-Rate Neural Recording Microsystems. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 390-399.	2.5	9

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55	Batteryless MEMS flow sensor within prosthetic vascular graft. , 2011, , .		1
56	Characterization of Silicon Nanowire Embedded in a MEMS Diaphragm Structure Within Large Compressive Strain Range. IEEE Electron Device Letters, 2011, 32, 1764-1766.	2.2	15
57	Ultrasensitive dielectric filled Lamé mode biomass sensor. , 2011, , .		2
58	Gate-All-Around Junctionless Nanowire MOSFET With Improved Low-Frequency Noise Behavior. IEEE Electron Device Letters, 2011, 32, 1752-1754.	2.2	80
59	Characteristics of NEMS Piezoresistive Silicon Nanowires Pressure Sensors With various Diaphragm Layers. Procedia Engineering, 2011, 25, 1433-1436.	1.2	8
60	Ultrasensitive pressure sensor based on gate- all-around nanowire fet. , 2011, , .		4
61	Design and Characterization of Microelectromechanical System Flow Sensors Using Silicon Nanowires. Nanoscience and Nanotechnology Letters, 2011, 3, 230-234.	0.4	4
62	Microstructure and mechanical properties of aluminum–germanium eutectic bonding with polysilicon metallization for microelectromechanical systems (MEMS) packaging. Scripta Materialia, 2011, 64, 733-736.	2.6	13
63	Microcantilever sensors with embedded piezoresistive transistor read-out: Design and characterization. Sensors and Actuators A: Physical, 2011, 171, 178-185.	2.0	11
64	Gate-bias-controlled sensitivity and SNR enhancement in a nanowire FET pressure sensor. Journal of Micromechanics and Microengineering, 2011, 21, 105007.	1.5	7
65	Ultra-low-power wireless implantable blood flow sensing microsystem for vascular graft applications. , 2011, , .		8
66	Sensorized guidewires with MEMS tri-axial force sensor for minimally invasive surgical applications. , 2010, 2010, 6461-4.		6
67	Surface charge extraction methods in offset shift-related failures of MEMS pressure sensors. Journal of Micromechanics and Microengineering, 2010, 20, 115027.	1.5	0
68	Review: Semiconductor Piezoresistance for Microsystems. Proceedings of the IEEE, 2009, 97, 513-552.	16.4	742
69	Development of wafer scale encapsulation process for large displacement piezoresistive MEMS devices. Sensors and Actuators A: Physical, 2009, 156, 275-283.	2.0	10
70	Frequency stability of wafer-scale film encapsulated silicon based MEMS resonators. Sensors and Actuators A: Physical, 2007, 136, 125-131.	2.0	114
71	Ultraminiature encapsulated accelerometers as a fully implantable sensor for implantable hearing aids. Biomedical Microdevices, 2007, 9, 939-949.	1.4	20
72	Long-Term and Accelerated Life Testing of a Novel Single-Wafer Vacuum Encapsulation for MEMS Resonators. Journal of Microelectromechanical Systems, 2006, 15, 1446-1456.	1.7	183

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73	Wafer Scale Encapsulation of Wide Gaps using oxidation of Sacrificial Beams. Electronics Manufacturing Technology Symposium (IEMT), IEEE/CPMT International, 2006, , .	0.0	2
74	Encapsulated Submillimeter Piezoresistive Accelerometers. Journal of Microelectromechanical Systems, 2006, 15, 507-514.	1.7	37
75	Impact of Geometry on Thermoelastic Dissipation in Micromechanical Resonant Beams. Journal of Microelectromechanical Systems, 2006, 15, 927-934.	1.7	127
76	Investigation of MEMS Resonator Characteristics for Long-Term and Wide Temperature Variation Operation. , 2004, , 413.		3
77	Measurement System for Low Force and Small Displacement Contacts. Journal of Microelectromechanical Systems, 2004, 13, 220-229.	1.7	58
78	Single wafer encapsulation of mems devices. IEEE Transactions on Advanced Packaging, 2003, 26, 227-232.	1.7	163
79	An Integrated Wafer-Scale Packaging Process for MEMS. , 2002, , .		6
80	Hydrogen diffusion and pressure control of encapsulated MEMS resonators. , 0, , .		23
81	Frequency stability of wafer-scale encapsulated MEMS resonators. , 0, , .		60
82	Sub-mm encapsulated accelerometers: a fully implantable sensor for cochlear implants. , 0, , .		4
83	Fully encapsulated sub-millimeter accelerometers. , 0, , .		7
84	Design, Fabrication and Characterization of Ultra Miniature Piezoresistive Pressure Sensors for Medical Implants. Advanced Materials Research, 0, 254, 94-98.	0.3	3
85	Developing High Sensitivity Biomass Sensor Using LamÃ© Mode Square Resonator. Advanced Materials Research, 0, 254, 46-49.	0.3	4
86	Effect of Solution Aging Time on Stability of Colorimetric Assay for Degradation Rate Evaluation of Porous Si in Artificial Cerebrospinal Fluid. Advanced Materials Research, 0, 651, 306-311.	0.3	1