

Yoomin Ahn

List of Publications by Year in descending order

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54
papers

1,424
citations

304743

22
h-index

330143

37
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54
all docs

54
docs citations

54
times ranked

1515
citing authors

#	ARTICLE	IF	CITATIONS
1	Measurement of the mechanical properties of electroplated gold thin films using micromachined beam structures. <i>Sensors and Actuators A: Physical</i> , 2005, 117, 17-27.	4.1	119
2	Voltage pulse frequency and duty ratio effects in an electrochemical discharge microdrilling process of Pyrex glass. <i>International Journal of Machine Tools and Manufacture</i> , 2006, 46, 1064-1067.	13.4	118
3	Sliding microindentation fracture of brittle materials: Role of elastic stress fields. <i>Mechanics of Materials</i> , 1998, 29, 143-152.	3.2	117
4	On-Chip Immunoassay Using Surface-Enhanced Raman Scattering of Hollow Gold Nanospheres. <i>Analytical Chemistry</i> , 2010, 82, 5290-5295.	6.5	110
5	Chemical mechanical polishing by colloidal silica-based slurry for micro-scratch reduction. <i>Wear</i> , 2004, 257, 785-789.	3.1	83
6	Role of indentation fracture in free abrasive machining of ceramics. <i>Wear</i> , 1993, 162-164, 246-257.	3.1	79
7	Microchip-based multiplex electro-immunosensing system for the detection of cancer biomarkers. <i>Electrophoresis</i> , 2008, 29, 3466-3476.	2.4	62
8	A novel microfluidic biosensor based on an electrical detection system for alpha-fetoprotein. <i>Biosensors and Bioelectronics</i> , 2008, 23, 1319-1325.	10.1	58
9	Three-dimensional wafer scale hydrodynamic modeling for chemical mechanical polishing. <i>Thin Solid Films</i> , 2001, 389, 254-260.	1.8	43
10	Separation of Progressive Motile Sperm from Mouse Semen Using On-chip Chemotaxis. <i>Analytical Sciences</i> , 2012, 28, 27-32.	1.6	43
11	Disposable thermo-pneumatic micropump for bio lab-on-a-chip application. <i>Microelectronic Engineering</i> , 2009, 86, 1337-1339.	2.4	41
12	Design, Fabrication, and Testing of a Microfluidic Device for Thermotaxis and Chemotaxis Assays of Sperm. <i>SLAS Technology</i> , 2018, 23, 507-515.	1.9	40
13	Hydrodynamic analysis of chemical mechanical polishing process. <i>Tribology International</i> , 2000, 33, 723-730.	5.9	38
14	Polishing and Lapping Temperatures. <i>Journal of Tribology</i> , 1997, 119, 163-170.	1.9	33
15	Laminar flow-based micro fuel cell utilizing grooved electrode surface. <i>Journal of Power Sources</i> , 2014, 267, 731-738.	7.8	33
16	A laminar flow-based single stack of flow-over planar microfluidic fuel cells. <i>Journal of Power Sources</i> , 2017, 351, 67-73.	7.8	30
17	Effect of mechanical process parameters on chemical mechanical polishing of Al thin films. <i>Microelectronic Engineering</i> , 2003, 65, 13-23.	2.4	29
18	Parylene C-coated PDMS-based microfluidic microbial fuel cells with low oxygen permeability. <i>Journal of Power Sources</i> , 2018, 398, 209-214.	7.8	28

#	ARTICLE	IF	CITATIONS
19	Lateral Crack in Abrasive Wear of Brittle Materials.. JSME International Journal Series A-Solid Mechanics and Material Engineering, 2003, 46, 140-144.	0.4	26
20	Microfabricated, continuous-flow, microbial three-electrode cell for potential toxicity detection. Biochip Journal, 2015, 9, 27-34.	4.9	26
21	Real-time immunoassay with a PDMS-glass hybrid microfilter electro-immunosensing chip using nanogold particles and silver enhancement. Sensors and Actuators B: Chemical, 2008, 132, 327-333.	7.8	23
22	DNA ligation using a disposable microfluidic device combined with a micromixer and microchannel reactor. Sensors and Actuators B: Chemical, 2011, 157, 735-741.	7.8	22
23	PDMS-glass serpentine microchannel chip for time domain PCR with bubble suppression in sample injection. Journal of Micromechanics and Microengineering, 2007, 17, 1810-1817.	2.6	21
24	Microfabricated paper-based vanadium co-laminar flow fuel cell. Journal of Power Sources, 2020, 451, 227801.	7.8	19
25	Microfluidic biochips for simple impedimetric detection of thrombin based on label-free DNA aptamers. Biochip Journal, 2017, 11, 109-115.	4.9	17
26	Si multiprobes integrated with lateral actuators for independent scanning probe applications. Journal of Micromechanics and Microengineering, 2005, 15, 1224-1229.	2.6	16
27	Microfluidic multiplex biochip based on a point-of-care electrochemical detection system for matrix metalloproteinases. Journal of Electroanalytical Chemistry, 2015, 756, 118-123.	3.8	16
28	Paper-based mediatorless enzymatic microfluidic biofuel cells. Biosensors and Bioelectronics, 2021, 190, 113391.	10.1	15
29	Simple structured polydimethylsiloxane microvalve actuated by external air pressure. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2006, 220, 1283-1288.	2.1	14
30	Influence of electrode groove geometry on the passive control of the depletion layer in microfluidic fuel cells. Journal of Micromechanics and Microengineering, 2015, 25, 127001.	2.6	14
31	Micromachined Si cantilever arrays for parallel AFM operation. Journal of Mechanical Science and Technology, 2008, 22, 308-311.	1.5	11
32	Classification and prediction of burr formation in micro drilling of ductile metals. International Journal of Production Research, 2017, 55, 4833-4846.	7.5	11
33	Upscaling of microfluidic fuel cell using planar single stacks. International Journal of Energy Research, 2019, 43, 5027-5037.	4.5	11
34	Surface roughness and material removal rate of lapping process on ceramics. Journal of Mechanical Science and Technology, 1997, 11, 494.	0.4	9
35	Development of microbiochip for detection of metalloproteinase 7 using fluorescence resonance energy transfer. Biochip Journal, 2013, 7, 164-172.	4.9	7
36	Co-laminar Microfluidic Microbial Fuel Cell Integrated with Electrophoretically Deposited Carbon Nanotube Flow-Over Electrode. ACS Sustainable Chemistry and Engineering, 2022, 10, 1839-1846.	6.7	7

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37	Separation-Type Multiplex Polymerase Chain Reaction Chip for Detecting Male Infertility. Japanese Journal of Applied Physics, 2008, 47, 5231-5235.	1.5	6
38	Development of a PDMS-Glass Hybrid Microchannel Mixer Composed of Micropillars and Micronozzles. Journal of Solid Mechanics and Materials Engineering, 2008, 2, 445-454.	0.5	5
39	Feasibility of on-chip detection of endotoxin by LAL test. Biotechnology and Bioprocess Engineering, 2004, 9, 132-136.	2.6	4
40	Disposable on-chip microfluidic system for buccal cell lysis, DNA purification, and polymerase chain reaction. Electrophoresis, 2013, 34, 2531-2537.	2.4	4
41	The basic study about the effect of single point grinding on the bending strength of brittle material. Journal of Mechanical Science and Technology, 1998, 12, 598-605.	0.4	3
42	An Integrated Microfluidic Device for Rapid Cell Lysis and DNA Purification of Epithelial Cell Samples. Journal of Nanoscience and Nanotechnology, 2011, 11, 4250-4253.	0.9	3
43	Development of Electrochemical Microbiochip for the Biological Diagnosis of <i>Neisseria gonorrhoeae</i> . Analytical Sciences, 2013, 29, 1203-1208.	1.6	3
44	Planar co-laminar flow microbial fuel cell with flow through porous electrodes. International Journal of Energy Research, 2021, 45, 14071-14079.	4.5	2
45	Analysis and monitoring of mode transitions during afm nanomachining of IZO-Coated pyrex glass. Machining Science and Technology, 2019, 23, 39-56.	2.5	1
46	A Study About Biochip Combined with Micro Mixer and Reactor for DNA Ligation. Transactions of the Korean Society of Mechanical Engineers, A, 2008, 32, 624-632.	0.2	1
47	Mixing Efficiency Evaluation in Y-channel Micromixer Using LIF Confocal Microscope. Transactions of the Korean Society of Mechanical Engineers, B, 2007, 31, 159-166.	0.1	1
48	A Study About PDMS-Glass Based Thermopneumatic Micropump Integrated with Check Valve. Transactions of the Korean Society of Mechanical Engineers, A, 2008, 32, 720-727.	0.2	1
49	A Study About Microbiochip for Separation of Motile Sperm by Using Chemotaxis. Transactions of the Korean Society of Mechanical Engineers, A, 2008, 32, 1115-1122.	0.2	1
50	Magnetic Damage in Mn-Zn and Ni-Zn Ferrites Induced by Abrasion. Tribology Series, 1994, 27, 117-123.	0.1	0
51	Separation type multiplex PCR chip for detecting male infertility. , 2007, , .		0
52	P-36 Development of PDMS-glass hybrid microchannel mixer composed of micropillars and micronozzles. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2007, 2007.6, _P-36-1_-_P-36-5_.	0.0	0
53	Development of Detachable PDMS/Glass PCR-Chip and It's Application to Detection of Male Infertility. Transactions of the Korean Society of Mechanical Engineers, A, 2008, 32, 371-377.	0.2	0
54	Study on Microbiochip for Buccal Cell Lysis and DNA Purification. Transactions of the Korean Society of Mechanical Engineers, A, 2010, 34, 1785-1791.	0.2	0