Sunggook Park

List of Publications by Year in descending order

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99 papers	2,297 citations	236925 25 h-index	233421 45 g-index
100 all docs	100 docs citations	100 times ranked	2556 citing authors

#	Article	IF	Citations
1	A Novel Approach to Produce Protein Nanopatterns by Combining Nanoimprint Lithography and Molecular Self-Assembly. Nano Letters, 2004, 4, 1909-1914.	9.1	194
2	Barrier height engineering of Ag/GaAs(100) Schottky contacts by a thin organic interlayer. Applied Surface Science, 2002, 190, 461-466.	6.1	132
3	Controlled co-evaporation of silanes for nanoimprint stamps. Nanotechnology, 2005, 16, S171-S175.	2.6	119
4	Flexible fabrication and applications of polymer nanochannels and nanoslits. Chemical Society Reviews, 2011, 40, 3677.	38.1	110
5	Effects of internal linkage groups of fluorinated diamine on the optical and dielectric properties of polyimide thin films. Polymer, 2007, 48, 2130-2143.	3.8	102
6	Nanohole array plasmonic biosensors: Emerging point-of-care applications. Biosensors and Bioelectronics, 2019, 130, 185-203.	10.1	81
7	Complete plastic nanofluidic devices for DNA analysis via direct imprinting with polymer stamps. Lab on A Chip, 2011, 11, 2984.	6.0	70
8	Photon-beam lithography reaches 12.5â€‚nm half-pitch resolution. Journal of Vacuum Science & Technology B, 2007, 25, 91.	1.3	67
9	Chemical Nanopatterns via Nanoimprint Lithography for Simultaneous Control over Azimuthal and Polar Alignment of Liquid Crystals. Advanced Materials, 2005, 17, 1398-1401.	21.0	66
10	Fabrication of polymer photonic crystals using nanoimprint lithography. Nanotechnology, 2005, 16, S261-S265.	2.6	60
11	Simple replication methods for producing nanoslits in thermoplastics and the transport dynamics of double-stranded DNA through these slits. Lab on A Chip, 2010, 10, 3255.	6.0	58
12	Propulsion of droplets on micro- and sub-micron ratchet surfaces in the Leidenfrost temperature regime. Microfluidics and Nanofluidics, 2011, 10, 1045-1054.	2.2	58
13	Single crystals of the organic semiconductor perylene tetracarboxylic dianhydride studied by Raman spectroscopy. Physical Review B, 2000, 61, 14564-14569.	3.2	57
14	Surface charge, electroosmotic flow and DNA extension in chemically modified thermoplastic nanoslits and nanochannels. Analyst, The, 2015, 140, 113-126.	3.5	57
15	Robust, transparent, superhydrophobic coatings using novel hydrophobic/hydrophilic dual-sized silica particles. Journal of Colloid and Interface Science, 2020, 574, 347-354.	9.4	57
16	Surface adhesion and demolding force dependence on resist composition in ultraviolet nanoimprint lithography. Applied Surface Science, 2011, 258, 1272-1278.	6.1	44
17	A universally applicable method for fabricating superhydrophobic polymer surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 407, 85-90.	4.7	43
18	Simulation study on stress and deformation of polymeric patterns during the demolding process in thermal imprint lithography. Journal of Vacuum Science & Technology B, 2008, 26, 598-605.	1.3	40

#	Article	IF	Citations
19	Scalable fabrication of sub-10â€‰nm polymer nanopores for DNA analysis. Microsystems and Nanoengineering, 2019, 5, 12.	7.0	33
20	Energy level alignment driven by electron affinity difference at 3,4,9,10-perylenetetracarboxylic dianhydride/n-GaAs(100) interfaces. Applied Physics Letters, 2001, 79, 4124-4126.	3.3	30
21	Photonic band gaps and defect modes of polymer photonic crystal slabs. Applied Physics Letters, 2005, 86, 051101.	3.3	30
22	Droplet impinging behavior on surfaces with wettability contrasts. Microelectronic Engineering, 2018, 195, 50-56.	2.4	29
23	Tuning Schottky barrier heights by organic modification of metal-semiconductor contacts. Vacuum, 2002, 67, 101-113.	3.5	28
24	Correlation of residual stress and adhesion on copper by the effect of chemical structure of polyimides for copperâ€clad laminates. Polymer International, 2008, 57, 350-358.	3.1	27
25	Demolding temperature in thermal nanoimprint lithography. Applied Physics A: Materials Science and Processing, 2009, 97, 395-402.	2.3	26
26	Soft UV-nanoimprint lithography on non-planar surfaces. Microelectronic Engineering, 2011, 88, 3287-3292.	2.4	26
27	Optical constants of 3,4,9,10-perylenetetracarboxylic dianhydride films on silicon and gallium arsenide studied by spectroscopic ellipsometry. Applied Physics A: Materials Science and Processing, 2002, 75, 501-506.	2.3	25
28	A Simulation Study on the Effect of Cross-Linking Agent Concentration for Defect Tolerant Demolding in UV Nanoimprint Lithography. Langmuir, 2012, 28, 11546-11554.	3.5	25
29	Nanostructuring of anti-adhesive layers by hot embossing lithography. Microelectronic Engineering, 2003, 67-68, 252-258.	2.4	24
30	Direct microscale imprinting of Al at room temperature with Si inserts. Microsystem Technologies, 2008, 14, 815-819.	2.0	24
31	Biocompatible/bioabsorbable silver nanocomposite coatings. Journal of Applied Polymer Science, 2011, 120, 3042-3053.	2.6	24
32	Relation between morphology and work function of metals deposited on organic substrates. Applied Surface Science, 2004, 234, 333-340.	6.1	23
33	Optical characterisation of PTCDA films grown on passivated semiconductor substrates. Applied Surface Science, 2000, 166, 387-391.	6.1	22
34	Stamps for nanoimprint lithography by extreme ultraviolet interference lithography. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 3246.	1.6	21
35	Passive micro-assembly of modular, hot embossed, polymer microfluidic devices using exact constraint design. Journal of Micromechanics and Microengineering, 2009, 19, 125025.	2.6	19
36	Polymerization shrinkage stress measurement for a UV-curable resist in nanoimprint lithography. Journal of Micromechanics and Microengineering, 2011, 21, 115013.	2.6	19

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37	3D nanomolding for lab-on-a-chip applications. Lab on A Chip, 2012, 12, 4764.	6.0	19
38	Study on demolding temperature in thermal imprint lithography via finite element analysis. Microsystem Technologies, 2008, 14, 1593-1597.	2.0	18
39	A microfluidic platform with a free-standing perforated polymer membrane. Journal of Micromechanics and Microengineering, 2010, 20, 085011.	2.6	18
40	Electrokinetic transport properties of deoxynucleotide monophosphates (dNMPs) through thermoplastic nanochannels. Analytica Chimica Acta, 2018, 1027, 67-75.	5.4	18
41	3D molding of hierarchical micro- and nanostructures. Journal of Micromechanics and Microengineering, 2011, 21, 035016.	2.6	17
42	Effect of different fluids on rectified motion of Leidenfrost droplets on micro/sub-micron ratchets. Microelectronic Engineering, 2016, 158, 130-134.	2.4	17
43	Water sorption behaviors of the BPDA-based polyimide films depending upon the structural isomers of diamine. Journal of Applied Polymer Science, 2001, 79, 2121-2127.	2.6	16
44	Copper phthalocyanine on InSb(111)Aâ€"interface bonding, growth mode and energy band alignment. Journal of Physics Condensed Matter, 2003, 15, S2729-S2740.	1.8	16
45	Nano-Imprint-Molding Resists for Lithography. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2003, 16, 435-438.	0.3	16
46	Accurate, predictable, repeatable micro-assembly technology for polymer, microfluidic modules. Sensors and Actuators B: Chemical, 2018, 254, 1249-1258.	7.8	15
47	Openâ€tubular nanoelectrochromatography (OTâ€NEC): gelâ€free separation of single stranded DNAs (ssDNAs) in thermoplastic nanochannels. Electrophoresis, 2020, 41, 1627-1640.	2.4	15
48	Organic probe for inhomogeneous band bending. Applied Physics Letters, 2000, 76, 3200-3202.	3.3	14
49	Optical Anisotropy of Organic Layers Deposited on Semiconductor Surfaces. Physica Status Solidi A, 2001, 188, 1307-1317.	1.7	14
50	3D nanomolding and fluid mixing in micromixers with micro-patterned microchannel walls. Nano Convergence, 2017, 4, 4.	12.1	14
51	Selection of UV-resins for nanostructured molds for thermal-NIL. Nanotechnology, 2018, 29, 365302.	2.6	14
52	Nanoindentation studies of polyimide thin films with various internal linkages in the diamine component. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 861-870.	2.1	13
53	The interface formation of PTCDA on Se-modified GaAs(100) surfaces. Applied Surface Science, 2000, 166, 376-379.	6.1	12
54	Hybrid bendable stamp copies for molding fabricated by nanoimprint lithography. Microelectronic Engineering, 2005, 78-79, 605-611.	2.4	12

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55	Interaction of metals with an organic semiconductor: Ag and In on PTCDA. Applied Surface Science, 2002, 190, 376-381.	6.1	10
56	Chemical patterning of sub-50-nm half pitches via nanoimprint lithography. Microelectronic Engineering, 2005, 78-79, 682-688.	2.4	10
57	Surface Charge Density-Dependent DNA Capture through Polymer Planar Nanopores. ACS Applied Materials & Interfaces, 2018, 10, 40927-40937.	8.0	10
58	Anti-adhesive layers on nickel stamps for nanoimprint lithography. Microelectronic Engineering, 2004, 73-74, 196-201.	2.4	10
59	Fabrication of polymeric dual-scale nanoimprint molds using a polymer stencil membrane. Microelectronic Engineering, 2018, 199, 101-105.	2.4	9
60	Copperâ€Coordinated Histidyl Bolaamphiphile Assembly as an Oxidative Catalyst: Coordination Structure and Catalytic Activity in Cyclohexane Oxidation. ChemCatChem, 2019, 11, 4935-4943.	3.7	9
61	Synthesis and Characterization of ZIF-7 Membranes by <I>In Situ</I> Method. Journal of Nanoscience and Nanotechnology, 2015, 15, 575-578.	0.9	8
62	The role of hydrophobic silane coating on Si stamps in nanoimprint lithography. Journal of Applied Physics, 2017, 121, 044909.	2.5	8
63	Patterned electromagnetic alignment of magnetic nanowires. Microelectronic Engineering, 2018, 193, 71-78.	2.4	8
64	Labelâ€Free Identification of Single Mononucleotides by Nanoscale Electrophoresis. Small, 2021, 17, e2102567.	10.0	8
65	Electrokinetic identification of ribonucleotide monophosphates (rNMPs) using thermoplastic nanochannels. Journal of Chromatography A, 2021, 1638, 461892.	3.7	7
66	Thermoplastic nanofluidic devices for identifying abasic sites in single DNA molecules. Lab on A Chip, 2021, 21, 1579-1589.	6.0	6
67	Tailoring Thermoplastic In-Plane Nanopore Size by Thermal Fusion Bonding for the Analysis of Single Molecules. ACS Sensors, 2021, 6, 3133-3143.	7.8	6
68	Deformation behavior in 3D molding: experimental and simulation studies. Journal of Micromechanics and Microengineering, 2012, 22, 115027.	2.6	4
69	Replication of a Thin Polydimethylsiloxane Stamp and Its Application to Dual-Nanoimprint Lithography for 3D Hybrid Nano/Micropatterns. Journal of Nanoscience and Nanotechnology, 2012, 12, 5489-5493.	0.9	4
70	Fabrication of Perforated Micro/Nanopore Membranes via a Combination of Nanoimprint Lithography and Pressed Self-Perfection Process for Size Reduction. Journal of Nanoscience and Nanotechnology, 2013, 13, 4129-4133.	0.9	4
71	Polymer Stamps for Imprinting Nanopatterns in Polymer Substrate. Journal of Nanoscience and Nanotechnology, 2015, 15, 471-474.	0.9	4
72	Effect of Surface Wetting of Micro/Nano Ratchets on Leidenfrost Liquid Drop Motion. , 2009, , .		3

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73	Novel, Gasketless, Interconnect Using Parallel Superhydrophobic Surfaces for Modular Microfluidic Systems. , 2011, , .		2
74	The Effects of Asymmetric Micro Ratchets on Dynamic Contact Angle and Pool Boiling Performance. , 2012, , .		2
75	Low Cost Fabrication of a Superhydrophobic <I>V</I>-Grooved Polymer Surface. Journal of Nanoscience and Nanotechnology, 2013, 13, 1884-1887.	0.9	2
76	Reduction of Nanowire Agglomeration via an Intermediate Membrane in Nanowires Preparation for Nanosensors Application. , 2015, , .		2
77	Micron Level Placement of Nanowires via Real Time Observation Under Optical Microscope on a Desired Nanochannel for Nanosensors Application. , 2016, , .		2
78	3-D Integration of Micro-Gratings Into Bio-Analytical Devices. , 2009, , .		2
79	Modifying surface charge density of thermoplastic nanofluidic biosensors by multivalent cations within the slip plane of the electric double layer. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 648, 129147.	4.7	2
80	Inâ€plane Extended Nanoâ€Coulter Counter (XnCC) for the Labelâ€Free Electrical Detection of Biological Particles. Electroanalysis, 0, , .	2.9	2
81	NANOPATTERNED POLYMER THIN FILMS. Journal of Nonlinear Optical Physics and Materials, 2005, 14, 299-303.	1.8	1
82	Nanostructuring Curved Surfaces Using a Flexible Stamp. , 2009, , .		1
83	Pool Boiling Enhancement via Micro Ratchets. , 2011, , .		1
84	Experimental and Numerical Study of the Effects of Asymmetric Micro Ratchets on Pool Boiling Performance. , 2013, , .		1
85	Influence of Nanochannel Inlet Structure Upon DNA Capture Ratio. , 2011, , .		1
86	Optical Spectroscopy during Growth of PTCDA-C60Complex Thin Films. Journal of Physical Chemistry B, 2001, 105, 12076-12081.	2.6	0
87	Fabrication of 3-D Superhydrophobic Micro-Ratchets via Combined Thermal Imprint Lithography and Photolithography. , 2008, , .		0
88	Protein Adsorption in a Continuous Flow Microchannel Environment. , 2008, , .		0
89	Fabrication of Cost-Effective Polymer-Based Nanofluidic Device for Single Molecular Analysis. , 2010, , .		0
90	The Influence of Ratchets Dimension and Shape on the Motion of Leidenfrost Droplet. , 2010, , .		0

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91	Polymerization Shrinkage and Adhesion in UV-Nanoimprint Lithography. , 2011, , .		0
92	3D Micromixer. , 2012, , .		0
93	Fabrication of Perforated Conical Nanopores in Freestanding Polymer Membranes Using Nanoimprint Lithography and Pressed Self-Perfection Method. , 2012, , .		0
94	Electrodeposition of Long Silver Nanowires in Highly Ordered Polymer-Based Template. , 2015, , .		0
95	The Influence of Micro Scale Ratchet Depth on the Motion of Leidenfrost Drop. , 2015, , .		0
96	Labelâ€Free Identification of Single Mononucleotides by Nanoscale Electrophoresis (Small 42/2021). Small, 2021, 17, 2170220.	10.0	0
97	Nanoimprinting Technology for Biological Applications. , 2006, , 93-115.		0
98	Perforated Micro- and Nanopores in Free-Standing Polymer Membranes Fabricated by Nanoimprint Lithography and Pressed Self-Perfection Method. , 2009, , .		0
99	Fluidic operation of a polymer-based nanosensor chip for analysing single molecules. Flow, 2022, 2, .	2.6	0