

# Dae-Geun Choi

## List of Publications by Year in descending order

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118  
papers

3,475  
citations

126907

33  
h-index

149698

56  
g-index

118  
all docs

118  
docs citations

118  
times ranked

4949  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanomachining by Colloidal Lithography. <i>Small</i> , 2006, 2, 458-475.	10.0	559
2	Colloidal Lithographic Nanopatterning via Reactive Ion Etching. <i>Journal of the American Chemical Society</i> , 2004, 126, 7019-7025.	13.7	183
3	Patterned Arrays of Au Rings for Localized Surface Plasmon Resonance. <i>Langmuir</i> , 2006, 22, 7109-7112.	3.5	122
4	Controlled assembly of single SWNTs bundle using dielectrophoresis. <i>Microelectronic Engineering</i> , 2005, 81, 83-89.	2.4	94
5	Highly Durable AgNi Nanomesh Film for a Transparent Conducting Electrode. <i>Small</i> , 2014, 10, 3767-3774.	10.0	93
6	Superamphiphobic Surface by Nanotransfer Molding and Isotropic Etching. <i>Langmuir</i> , 2013, 29, 8070-8075.	3.5	87
7	13.2% efficiency Si nanowire/PEDOT:PSS hybrid solar cell using a transfer-imprinted Au mesh electrode. <i>Scientific Reports</i> , 2015, 5, 12093.	3.3	84
8	Ultraviolet nanoimprinted polymer nanostructure for organic light emitting diode application. <i>Applied Physics Letters</i> , 2008, 92, 223307.	3.3	76
9	Corrugated organic light emitting diodes for enhanced light extraction. <i>Organic Electronics</i> , 2010, 11, 711-716.	2.6	76
10	A cupronickel-based micromesh film for use as a high-performance and low-voltage transparent heater. <i>Journal of Materials Chemistry A</i> , 2015, 3, 16621-16626.	10.3	75
11	Oriented Grains with Preferred Low-Angle Grain Boundaries in Halide Perovskite Films by Pressure-Induced Crystallization. <i>Advanced Energy Materials</i> , 2018, 8, 1702369.	19.5	74
12	Incorporation of CdS Nanoparticles Inside Ordered Mesoporous Silica SBA-15 via Ion Exchange. <i>Advanced Materials</i> , 2002, 14, 1311-1314.	21.0	68
13	Patterned Colloidal Photonic Domes and Balls Derived from Viscous Photocurable Suspensions. <i>Advanced Materials</i> , 2008, 20, 3211-3217.	21.0	68
14	Nanoscope Ordered Voids and Metal Caps by Controlled Trapping of Colloidal Particles at Polymeric Film Surfaces. <i>Advanced Materials</i> , 2008, 20, 4862-4867.	21.0	67
15	Fluorinated Organic-Inorganic Hybrid Mold as a New Stamp for Nanoimprint and Soft Lithography. <i>Langmuir</i> , 2005, 21, 9390-9392.	3.5	65
16	Solution-processable polymer solar cells from a poly(3-hexylthiophene)/[6,6]-phenyl C61-butyrac acidmethyl ester concentration graded bilayers. <i>Applied Physics Letters</i> , 2009, 95, 043505.	3.3	62
17	ITO-free highly bendable and efficient organic solar cells with Ag nanomesh/ZnO hybrid electrodes. <i>Journal of Materials Chemistry A</i> , 2015, 3, 65-70.	10.3	55
18	Nanopatterned Magnetic Metal via Colloidal Lithography with Reactive Ion Etching. <i>Chemistry of Materials</i> , 2004, 16, 4208-4211.	6.7	54

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19	Particle Arrays with Patterned Pores by Nanomachining with Colloidal Masks. <i>Journal of the American Chemical Society</i> , 2005, 127, 1636-1637.	13.7	50
20	Effect of two-step sol-gel reaction on the mesoporous silica structure. <i>Journal of Colloid and Interface Science</i> , 2003, 261, 127-132.	9.4	49
21	Two-Dimensional Polymer Nanopattern by Using Particle-Assisted Soft Lithography. <i>Chemistry of Materials</i> , 2004, 16, 3410-3413.	6.7	48
22	Micropatterning of thin P3HT films via plasma enhanced polymer transfer printing. <i>Journal of Materials Chemistry</i> , 2008, 18, 3489.	6.7	48
23	Plasmon-Enhanced Infrared Spectroscopy Based on Metamaterial Absorbers with Dielectric Nanopillars. <i>ACS Photonics</i> , 2018, 5, 3492-3498.	6.6	43
24	UV-curable nanoimprint resin with enhanced anti-sticking property. <i>Applied Surface Science</i> , 2008, 254, 4793-4796.	6.1	42
25	Photo-induced hybrid nanopatterning of titanium dioxide via direct imprint lithography. <i>Journal of Materials Chemistry</i> , 2010, 20, 1921.	6.7	40
26	Efficiency Increase in Flexible Bulk Heterojunction Solar Cells with a Nano-patterned Indium Zinc Oxide Anode. <i>Advanced Energy Materials</i> , 2012, 2, 1319-1322.	19.5	40
27	Multifaceted and Nanobored Particle Arrays Sculpted Using Colloidal Lithography. <i>Advanced Functional Materials</i> , 2006, 16, 33-40.	14.9	38
28	Photovoltaic Devices with an Active Layer from a Stamping Transfer Technique: Single Layer Versus Double Layer. <i>Langmuir</i> , 2010, 26, 9584-9588.	3.5	38
29	Rheological analysis of the gelation behavior of tetraethylorthosilane/vinyltriethoxysilane hybrid solutions. <i>Korean Journal of Chemical Engineering</i> , 2002, 19, 190-196.	2.7	37
30	Unexpected solid-solid intermixing in a bilayer of poly(3-hexylthiophene) and [6,6]-phenyl C61-butyric acidmethyl ester via stamping transfer. <i>Organic Electronics</i> , 2010, 11, 1376-1380.	2.6	37
31	Selective removal of metallic SWNTs using microwave radiation. <i>Current Applied Physics</i> , 2008, 8, 725-728.	2.4	36
32	Graphoepitaxy of Block Copolymer Self-Assembly Integrated with Single-Step ZnO Nanoimprinting. <i>Small</i> , 2012, 8, 1563-1569.	10.0	36
33	2D nano/micro hybrid patterning using soft/block copolymer lithography. <i>Materials Science and Engineering C</i> , 2004, 24, 213-216.	7.3	35
34	Facile nanopatterning of zirconium dioxide films via direct ultraviolet-assisted nanoimprint lithography. <i>Journal of Materials Chemistry</i> , 2011, 21, 657-662.	6.7	35
35	Highly robust silicon nanowire/graphene core-shell electrodes without polymeric binders. <i>Nanoscale</i> , 2013, 5, 8986.	5.6	33
36	Controlled Fabrication of Hollow Metal Pillar Arrays Using Colloidal Masks. <i>Chemistry of Materials</i> , 2006, 18, 6103-6105.	6.7	31

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37	Resist Flow Behavior in Ultraviolet Nanoimprint Lithography as a Function of Contact Angle with Stamp and Substrate. Japanese Journal of Applied Physics, 2008, 47, 8648-8651.	1.5	30
38	Effect of the ordered 2D-dot nano-patterned anode for polymer solar cells. Organic Electronics, 2010, 11, 285-290.	2.6	30
39	Covalent bonding-assisted nanotransfer lithography for the fabrication of plasmonic nano-optical elements. Nanoscale, 2017, 9, 14335-14346.	5.6	28
40	Fabrication of high aspect ratio nanogrid transparent electrodes via capillary assembly of Ag nanoparticles. Nanoscale, 2016, 8, 11217-11223.	5.6	26
41	Effect of surface treatments on interfacial adhesion energy between UV-curable resist and glass wafer. International Journal of Adhesion and Adhesives, 2009, 29, 662-669.	2.9	25
42	Solution-processable polymer based photovoltaic devices with concentration graded bilayers made via composition control of a poly(3-hexylthiophene)/[6,6]-phenyl C61-butyric acidmethyl ester. Journal of Materials Chemistry, 2010, 20, 4910.	6.7	25
43	Facile Fabrication of Silicon Nanotube Arrays and Their Application in Lithium-Ion Batteries. Advanced Engineering Materials, 2016, 18, 1349-1353.	3.5	25
44	Ultraviolet-nanoimprint of 40 nm scale patterns using functionally modified fluorinated hybrid materials. Nanotechnology, 2006, 17, 3319-3324.	2.6	23
45	Enhanced Performance and Stability of Polymer BHJ Photovoltaic Devices from Dry Transfer of PEDOT:PSS. ChemSusChem, 2014, 7, 1957-1963.	6.8	23
46	Magnetic nanodot arrays patterned by selective ion etching using block copolymer templates. Nanotechnology, 2004, 15, 970-974.	2.6	22
47	Control of the Area Density of Vertically Grown ZnO Nanowires by Blending PS- <i>b</i> -P4VP and PS- <i>b</i> -PAA Copolymer Micelles. Chemistry of Materials, 2008, 20, 6041-6047.	6.7	22
48	Active layer transfer by stamping technique for polymer solar cells: Synergistic effect of TiOx interlayer. Organic Electronics, 2010, 11, 599-603.	2.6	22
49	Layer-by-Layer All-Transfer-Based Organic Solar Cells. Langmuir, 2013, 29, 5377-5382.	3.5	22
50	Highly efficient and stable cupronickel nanomesh electrode for flexible organic photovoltaic devices. Journal of Power Sources, 2016, 331, 22-25.	7.8	22
51	Shape-Controlled 3D Periodic Metal Nanostructures Fabricated via Nanowelding. Small, 2018, 14, 1703102.	10.0	20
52	Nanoscopeic Pd Line Arrays Using Nanocontact Printed Dendrimers. Langmuir, 2006, 22, 3326-3331.	3.5	19
53	Effect of surface tension and coefficient of thermal expansion in 30 nm scale nanoimprinting with two flexible polymer molds. Nanotechnology, 2012, 23, 235303.	2.6	16
54	Conformally direct imprinted inorganic surface corrugation for light extraction enhancement of light emitting diodes. Optics Express, 2012, 20, A713.	3.4	16

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55	Fabrication of ZrO <sub>2</sub> nanopatterns for biomimetic antireflection by thermal nanoimprint lithography. <i>Microelectronic Engineering</i> , 2012, 100, 12-15.	2.4	16
56	Gold-coated silicon nanowire-graphene core-shell composite film as a polymer binder-free anode for rechargeable lithium-ion batteries. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2014, 61, 204-209.	2.7	16
57	Arrays of Binary and Ternary Particles and Their Replica Pores on Patterned Microchannels. <i>Chemistry of Materials</i> , 2003, 15, 4169-4171.	6.7	15
58	A facile patterning of silver nanowires using a magnetic printing method. <i>Nanotechnology</i> , 2015, 26, 345301.	2.6	15
59	Development of a very large-area ultraviolet imprint lithography process. <i>Microelectronic Engineering</i> , 2009, 86, 1983-1988.	2.4	14
60	Polymer-free Vertical Transfer of Silicon Nanowires and their Application to Energy Storage. <i>ChemSusChem</i> , 2013, 6, 2144-2148.	6.8	14
61	Fabrication of fluorine-doped diamond-like carbon stamps for UV nanoimprint lithography. <i>Nanotechnology</i> , 2006, 17, 4659-4663.	2.6	13
62	Nanosilver Colloids-Filled Photonic Crystal Arrays for Photoluminescence Enhancement. <i>Nanoscale Research Letters</i> , 2010, 5, 1590-1595.	5.7	13
63	Optical characterization of anatase TiO <sub>2</sub> films patterned by direct ultraviolet-assisted nanoimprint lithography. <i>Microelectronic Engineering</i> , 2011, 88, 923-928.	2.4	13
64	Effects of polymer surface energy on morphology and properties of silver nanowire fabricated via nanoimprint and E-beam evaporation. <i>Applied Surface Science</i> , 2017, 420, 429-438.	6.1	13
65	Measurement of Surface Adhesion Force of Adhesion Promoter and Release Layer for UV-Nanoimprint Lithography. <i>Journal of Nanoscience and Nanotechnology</i> , 2009, 9, 769-773.	0.9	12
66	Direct imprint of conductive silver patterns using nanosilver particles and UV curable resin. <i>Microelectronic Engineering</i> , 2009, 86, 622-627.	2.4	12
67	Direct soft UV-NIL with resist incorporating carbon nanotubes. <i>Microelectronic Engineering</i> , 2008, 85, 195-201.	2.4	11
68	Surface plasmon-waveguide hybrid polymer light-emitting devices using hexagonal Ag dots. <i>Optics Letters</i> , 2012, 37, 761.	3.3	10
69	Fabrication of nano-electrode arrays of free-standing carbon nanotubes on nano-patterned substrate by imprint method. <i>Applied Surface Science</i> , 2011, 257, 3063-3068.	6.1	9
70	Spontaneous Additive Nanopatterning from Solution Route Using Selective Wetting. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 26501-26509.	8.0	9
71	Enhancement of refractive index sensing for an infrared plasmonic metamaterial absorber with a nanogap. <i>Optics Express</i> , 2021, 29, 22796.	3.4	9
72	High-throughput step-and-repeat UV-nanoimprint lithography. <i>Current Applied Physics</i> , 2006, 6, e92-e98.	2.4	8

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73	Adaptive bonding technique for precise assembly of three-dimensional microstructures. Applied Physics Letters, 2007, 90, 233109.	3.3	8
74	Embossed superhydrophobic polymer surfaces with topological variances. Macromolecular Research, 2013, 21, 916-920.	2.4	8
75	Interior-architected ZnO nanostructure for enhanced electrical conductivity via stepwise fabrication process. Nanoscale Research Letters, 2014, 9, 428.	5.7	8
76	Fabrication of Plasma-induced Polymer Nanogras for a Synthetic Moth-eye Antireflection Nanostructure. Journal of the Korean Physical Society, 2009, 55, 566-571.	0.7	8
77	Replication of an UV-NIL stamp using DLC coating. Microelectronic Engineering, 2007, 84, 899-903.	2.4	7
78	Measurement of Adhesion Force by a Symmetric AFM Probe for Nano-imprint Lithography Application. Journal of Adhesion Science and Technology, 2008, 22, 1379-1386.	2.6	7
79	Mass fabrication of resistive random access crossbar arrays by step and flash imprint lithography. Nanotechnology, 2009, 20, 445305.	2.6	7
80	Direct Imprinted Conductive Patterns using Nanosilver Colloid-Applied UV Curable Resist. Japanese Journal of Applied Physics, 2009, 48, 06FH02.	1.5	7
81	Rapid nanopatterning of zirconium dioxide via nanoprinting and microwave-assisted annealing. RSC Advances, 2012, 2, 11035.	3.6	7
82	Sub-100nm scale polymer transfer printing process for organic photovoltaic devices. Solar Energy Materials and Solar Cells, 2013, 109, 1-7.	6.2	7
83	Fabrication of arrangement-controlled and vertically grown ZnO nanorods by metal nanotransfer printing. Journal of Industrial and Engineering Chemistry, 2020, 81, 385-392.	5.8	7
84	A Simple Soft Lithographic Nanopatterning of Gold on Gallium Arsenide via Galvanic Displacement. Journal of Nanoscience and Nanotechnology, 2010, 10, 5020-5026.	0.9	6
85	UV nanoimprint lithography using a diamond-like carbon stamp. , 2006, , .		5
86	Fabrication of Nano- and Micro-Scale UV Imprint Stamp Using Diamond-Like Carbon Coating Technology. Journal of Nanoscience and Nanotechnology, 2006, 6, 3619-3623.	0.9	5
87	Nanosilver particles-based conductive patterns developed by direct soft imprint lithography. Current Applied Physics, 2009, 9, S138-S140.	2.4	5
88	Fabrication of free-standing carbon nanotube electrode arrays on a quartz wafer. Thin Solid Films, 2010, 518, 6624-6629.	1.8	5
89	Fabrication and Photocatalytic Effects of Tungsten Trioxide Nano-Pattern Arrays. Materials Express, 2011, 1, 245-251.	0.5	5
90	A 4-in.-based single-step UV-NIL tool using a low vacuum environment and additive air pressure. Microelectronic Engineering, 2008, 85, 2304-2308.	2.4	4

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91	Direct UV-imprint lithography using conductive nanofiller-dispersed UV-curable resin. Journal of Vacuum Science & Technology B, 2008, 26, 1390.	1.3	4
92	Characterization of adhesion property between fused silica and thermoplastic polymer film in thermal nanoimprint lithography using a novel pull-off test. Microelectronic Engineering, 2011, 88, 855-860.	2.4	4
93	Optimized Film Processing of Nanosilver Colloids for Photoluminescence Enhancement. Journal of Nanoscience and Nanotechnology, 2011, 11, 422-426.	0.9	4
94	Direct Nanoimprint of Metal Bilayer for Tunnable Metal Photonic Properties. Japanese Journal of Applied Physics, 2013, 52, 10MC09.	1.5	4
95	Dual nanotransfer printing for complementary plasmonic biosensors. Nanotechnology, 2019, 30, 385302.	2.6	4
96	Nanotransfer Molding of Free-Standing Nanowire and Porous Nanomembranes Suspended on Microtrenches. ACS Applied Materials & Interfaces, 2013, 5, 418-424.	8.0	3
97	Tailoring of the plasmonic and waveguide effect in bulk-heterojunction photovoltaic devices with ordered, nanopatterned structures. Organic Electronics, 2014, 15, 3120-3126.	2.6	3
98	Controlled Patterning of Vertical Silicon Structures Using Polymer Lithography and Wet Chemical Etching. Journal of Nanoscience and Nanotechnology, 2015, 15, 4522-4529.	0.9	3
99	Ultra-violet nanoimprint lithography applicable to thin-film transistor liquid-crystal display. , 2007, , .		2
100	Hysteresis and reversible red-shift in the reflectance spectra of single-layer porous silicon during exposure to various organic vapors. Journal of the Korean Physical Society, 2014, 64, 640-644.	0.7	2
101	Rapid Low-temperature 3D Integration of Silicon Nanowires on Flexible Substrates. Small, 2015, 11, 3995-4001.	10.0	2
102	Shape-controlled fabrication of nanopatterned samarium-doped cerium oxide thin films using ultraviolet nanoimprint lithography. Thin Solid Films, 2017, 636, 552-557.	1.8	2
103	Large-Area Nanotemplate Process and Its Application to Roll Imprint. Japanese Journal of Applied Physics, 2012, 51, 06FJ01.	1.5	2
104	HYBRID NANOPATTERNING USING COLLOIDAL LITHOGRAPHY AND NANOIMPRINT FOR THE FABRICATION OF NANOTEMPLATE. International Journal of Nanoscience, 2008, 07, 73-79.	0.7	1
105	Polymer Solar Cells: Efficiency Increase in Flexible Bulk Heterojunction Solar Cells with a Nano-patterned Indium Zinc Oxide Anode (Adv. Energy Mater. 11/2012). Advanced Energy Materials, 2012, 2, 1282-1282.	19.5	1
106	Nanopatterning: Graphoepitaxy of Block-copolymer Self-assembly Integrated with Single-step ZnO Nanoimprinting (Small 10/2012). Small, 2012, 8, 1458-1458.	10.0	1
107	Nanoimprinted ZnO and ZnO Quantum Dots Embedded SiO <sub>2</sub> Layers for Inverted Bulk Heterojunction Solar Cells. Science of Advanced Materials, 2015, 7, 1253-1257.	0.7	1
108	UV nanoimprint lithography using a large area stamp in a low vacuum environment. , 2004, , .		0

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109	Effects of pattern size, dual side patterning, and imprint materials in the fabrication of antireflective structure using nanoimprint. , 2008, , .		0
110	Stamping-Based Planarization of Flexible Substrate for Low-Pressure UV Nanoimprint Lithography. Journal of Nanoscience and Nanotechnology, 2008, 8, 5673-5677.	0.9	0
111	Etch-less UV-NIL process for patterning photonic crystal structure onto OLED substrate. Proceedings of SPIE, 2008, , .	0.8	0
112	Pattern-Definable and Low Cost Fabrication of Nanopatterned Conducting Polymer Film on Flexible Substrates. Journal of Nanoscience and Nanotechnology, 2010, 10, 5680-5684.	0.9	0
113	Fabrication of large area nanotemplate through nanosilver colloidal lithography. , 2010, , .		0
114	Characterization of Adhesion Properties of a UV-Curable Nanoimprint Resin with Different Amounts of Release Agents. Journal of Adhesion, 2011, 87, 732-743.	3.0	0
115	Imprinted Pattern Profile-Dependent Optical Properties of Metal Nanostructures. Japanese Journal of Applied Physics, 2012, 51, 06FJ02.	1.5	0
116	A Micro-System Based on Glass-Nanoporous Silicon for Optical Sensing of Organic Solvent Vapor. Journal of Nanoscience and Nanotechnology, 2012, 12, 4564-4569.	0.9	0
117	Patterning of Functional Nanoparticles Using Solution-based Selective Surface Treatment Process. Journal of the Korean Society for Precision Engineering, 2019, 36, 1051-1057.	0.2	0
118	Fabrication of nano- and micro-scale UV imprint stamp using diamond-like carbon coating technology. Journal of Nanoscience and Nanotechnology, 2006, 6, 3619-23.	0.9	0