Seungwoo Lee

List of Publications by Year
in descending order

101 papers	3,950 citations	126708 33 h-index	128067 60 g-index
103 all docs	103 docs citations	103 times ranked	5288 citing authors

#	Article	IF	Citations
1	Switching terahertz waves with gate-controlled active graphene metamaterials. Nature Materials, 2012, 11, 936-941.	13.3	777
2	Directional Photofluidization Lithography: Micro/Nanostructural Evolution by Photofluidic Motions of Azobenzene Materials. Advanced Materials, 2012, 24, 2069-2103.	11.1	252
3	Programming Self-Assembly of DNA Origami Honeycomb Two-Dimensional Lattices and Plasmonic Metamaterials. Journal of the American Chemical Society, 2016, 138, 7733-7740.	6.6	172
4	Multibit MoS₂ Photoelectronic Memory with Ultrahigh Sensitivity. Advanced Materials, 2016, 28, 9196-9202.	11.1	145
5	Multifunctional Graphene Optoelectronic Devices Capable of Detecting and Storing Photonic Signals. Nano Letters, 2015, 15, 2542-2547.	4.5	110
6	Progress and Opportunities in Soft Photonics and Biologically Inspired Optics. Advanced Materials, 2018, 30, 1702669.	11.1	102
7	Reversibly Stretchable and Tunable Terahertz Metamaterials with Wrinkled Layouts. Advanced Materials, 2012, 24, 3491-3497.	11.1	87
8	Directional Photofluidization Lithography for Nanoarchitectures with Controlled Shapes and Sizes. Nano Letters, 2010, 10, 296-304.	4.5	72
9	Lightâ€Powered Healing of a Wearable Electrical Conductor. Advanced Functional Materials, 2014, 24, 7273-7283.	7.8	71
10	Mechanically Robust Silver Nanowires Network for Triboelectric Nanogenerators. Advanced Functional Materials, 2016, 26, 7717-7724.	7.8	71
11	Colloidal Photonic Assemblies for Colorful Radiative Cooling. Langmuir, 2020, 36, 6589-6596.	1.6	70
12	3D Printed, Customizable, and Multifunctional Smart Electronic Eyeglasses for Wearable Healthcare Systems and Humanâ€“Machine Interfaces. ACS Applied Materials & Interfaces, 2020, 12, 21424-21432.	4.0	68
13	Directional Superficial Photofluidization for Deterministic Shaping of Complex 3D Architectures. ACS Applied Materials & Interfaces, 2015, 7, 8209-8217.	4.0	63
14	Highâ€Resolution Patterning of Various Largeâ€Area, Highly Ordered Structural Motifs by Directional Photofluidization Lithography: Subâ€30â€nm Line, Ellipsoid, Rectangle, and Circle Arrays. Advanced Functional Materials, 2011, 21, 1770-1778.	7.8	58
15	Monolithic, Hierarchical Surface Reliefs by Holographic Photofluidization of Azopolymer Arrays: Direct Visualization of Polymeric Flows. Advanced Functional Materials, 2011, 21, 4412-4422.	7.8	58
16	Enhanced adhesion with pedestal-shaped elastomeric stamps for transfer printing. Applied Physics Letters, 2012, 100, .	1.5	57
17	Neutral-Colored Transparent Crystalline Silicon Photovoltaics. Joule, 2020, 4, 235-246.	11.7	55
18	DNA Origamiâ€Guided Assembly of the Roundest 60â€“100 nm Gold Nanospheres into Plasmonic Metamolecules. Advanced Functional Materials, 2018, 28, 1707309.	7.8	53

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19	Fabrication of the Funnel-Shaped Three-Dimensional Plasmonic Tip Arrays by Directional Photofluidization Lithography. ACS Nano, 2010, 4, 7175-7184.	7.3	52
20	Frankâ€“Kasper Phases Identified in PDMSâ€bâ€PTFEA Copolymers with High Conformational Asymmetry. Macromolecular Rapid Communications, 2019, 40, e1900259.	2.0	51
21	Golf ball-shaped PLGA microparticles with internal pores fabricated by simple O/W emulsion. Chemical Communications, 2010, 46, 7433.	2.2	49
22	Multiâ€Level Micro/Nanotexturing by Threeâ€Dimensionally Controlled Photofluidization and its Use in Plasmonic Applications. Advanced Materials, 2013, 25, 5490-5497.	11.1	47
23	Magnetic Plasmon Networks Programmed by Molecular Selfâ€Assembly. Advanced Materials, 2019, 31, e1901364.	11.1	47
24	DNA Origami Guided Self-Assembly of Plasmonic Polymers with Robust Long-Range Plasmonic Resonance. Nano Letters, 2020, 20, 8926-8932.	4.5	47
25	Comparative Study of Plasmonic Resonances between the Roundest and Randomly Faceted Au Nanoparticles-on-Mirror Cavities. ACS Photonics, 2018, 5, 413-421.	3.2	42
26	Holographic diffraction gratings with enhanced sensitivity based on epoxy-resin photopolymers. Optics Express, 2007, 15, 1497.	1.7	41
27	Bioinspired Toolkit Based on Intermolecular Encoder toward Evolutionary 4D Chiral Plasmonic Materials. Accounts of Chemical Research, 2019, 52, 2768-2783.	7.6	41
28	Facile fabrication of close-packed microlens arrays using photoinduced surface relief structures as templates. Optics Express, 2007, 15, 14550.	1.7	40
29	Black phosphorus nonvolatile transistor memory. Nanoscale, 2016, 8, 9107-9112.	2.8	39
30	Limitations and Opportunities for Optical Metafluids To Achieve an Unnatural Refractive Index. ACS Photonics, 2017, 4, 2298-2311.	3.2	39
31	Antifreezing Gold Colloids. Journal of the American Chemical Society, 2019, 141, 18682-18693.	6.6	38
32	Deterministic Nanotexturing by Directional Photofluidization Lithography. Advanced Materials, 2011, 23, 3244-3250.	11.1	37
33	Heterogeneously Assembled Metamaterials and Metadevices via 3D Modular Transfer Printing. Scientific Reports, 2016, 6, 27621.	1.6	35
34	Exploiting Colloidal Metamaterials for Achieving Unnatural Optical Refractions. Advanced Materials, 2020, 32, e2001806.	11.1	35
35	Microfluidic Generation of Monodisperse and Photoreconfigurable Microspheres for Floral Iridescenceâ€“Inspired Structural Colorization. Advanced Materials, 2016, 28, 5268-5275.	11.1	34
36	Orientation Approach to Directional Photodeformations in Glassy Side-Chain Azopolymers. Journal of Physical Chemistry B, 2019, 123, 3337-3347.	1.2	34

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37	Complex multicomponent patterns rendered on a 3D DNA-barrel pegboard. Nature Communications, 2020, 11, 5768.	5.8	33
38	Colloidal superlattices for unnaturally high-index metamaterials at broadband optical frequencies. Optics Express, 2015, 23, 28170.	1.7	32
39	Detailed balance analysis of plasmonic metamaterial perovskite solar cells. Optics Express, 2019, 27, A1241.	1.7	31
40	Lightâ€Directed Soft Mass Migration for Micro/Nanophotonics. Advanced Optical Materials, 2019, 7, 1900074.	3.6	31
41	Unusual surface reliefs from photoinduced creeping and aggregation behavior of azopolymer. Applied Physics Letters, 2008, 93, .	1.5	29
42	Control of liquid crystal pretilt angles by using organic/inorganic hybrid interpenetrating networks. Optics Express, 2009, 17, 16603.	1.7	29
43	Ultrastable-Stealth Large Gold Nanoparticles with DNA Directed Biological Functionality. Langmuir, 2015, 31, 13773-13782.	1.6	29
44	Experimental approach to the fundamental limit of the extinction coefficients of ultra-smooth and highly spherical gold nanoparticles. Physical Chemistry Chemical Physics, 2015, 17, 20786-20794.	1.3	29
45	Deterministic assembly of metamolecules by atomic force microscope-enabled manipulation of ultra-smooth, super-spherical gold nanoparticles. Optics Express, 2015, 23, 12766.	1.7	29
46	Soft Plasmonic Assemblies Exhibiting Unnaturally High Refractive Index. Nano Letters, 2020, 20, 4768-4774.	4.5	29
47	Petal-Inspired Diffractive Grating on a Wavy Surface: Deterministic Fabrications and Applications to Colorizations and LED Devices. ACS Applied Materials & Interfaces, 2017, 9, 9935-9944.	4.0	28
48	Vertically Oriented, Threeâ€Dimensionally Tapered Deepâ€Subwavelength Metallic Nanohole Arrays Developed by Photofluidization Lithography. Advanced Materials, 2014, 26, 7521-7528.	11.1	27
49	A Plesiohedral Cellular Network of Graphene Bubbles for Ultralight, Strong, and Superelastic Materials. Advanced Materials, 2018, 30, e1802997.	11.1	27
50	Imbricate Scales as a Design Construct for Microsystem Technologies. Small, 2012, 8, 901-906.	5.2	24
51	Light-transformable and -healable triboelectric nanogenerators. Nano Energy, 2017, 38, 412-418.	8.2	24
52	Assembly of â€œ3Dâ€•plasmonic clusters by â€œ2Dâ€•AFM nanomanipulation of highly uniform and smooth gold nanospheres. Scientific Reports, 2017, 7, 6045.	1.6	23
53	Holographic photopolymers of organic/inorganic hybrid interpenetrating networks for reduced volume shrinkage. Journal of Materials Chemistry, 2009, 19, 1105.	6.7	21
54	Nature-Inspired Construction of Two-Dimensionally Self-Assembled Peptide on Pristine Graphene. Journal of Physical Chemistry Letters, 2017, 8, 3734-3739.	2.1	21

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55	Scalable, Highly Uniform, and Robust Colloidal Mie Resonators for Allâ€Dielectric Soft Metaâ€Optics. Advanced Optical Materials, 2019, 7, 1801167.	3.6	19
56	A Field Guide to Azopolymeric Optical Fourier Surfaces and Augmented Reality. Advanced Functional Materials, 2021, 31, 2104105.	7.8	19
57	Multifunctional photoreactive inorganic cages for three-dimensional holographic data storage. Optics Letters, 2009, 34, 3095.	1.7	18
58	Light-Induced Surface Patterning of Silica. ACS Nano, 2015, 9, 9837-9848.	7.3	17
59	On-Demand Doping of Graphene by Stamping with a Chemically Functionalized Rubber Lens. ACS Nano, 2015, 9, 4354-4361.	7.3	16
60	Using highly uniform and smooth selenium colloids as low-loss magnetodielectric building blocks of optical metafluids. Optics Express, 2017, 25, 13822.	1.7	16
61	Gold nanoparticle-embedded DNA thin films for ultraviolet photodetectors. Sensors and Actuators B: Chemical, 2018, 275, 137-144.	4.0	16
62	Double Gyroids for Frequency-Isolated Weyl Points in the Visible Regime and Interference Lithographic Design. ACS Photonics, 2020, 7, 1577-1585.	3.2	16
63	Simple approach for enhancement of light harvesting efficiency of dye-sensitized solar cells by polymeric mirror. Optics Express, 2010, 18, A522.	1.7	15
64	A printed nanobeam laser on a SiO_2/Si substrate for low-threshold continuous-wave operation. Optics Express, 2014, 22, 12115.	1.7	15
65	Dual-colour generation from layered colloidal photonic crystals harnessing â€œcore hatchingâ€•in double emulsions. Journal of Materials Chemistry C, 2019, 7, 6924-6931.	2.7	14
66	Balanced Interfacial Interactions for Fluoroacrylic Block Copolymer Films and Fast Electric Field Directed Assembly. Chemistry of Materials, 2020, 32, 9633-9641.	3.2	14
67	Photoâ€Transformable Gratings for Augmented Reality. Advanced Functional Materials, 2021, 31, 2100839.	7.8	14
68	Sub-100 nm gold nanohole-enhanced Raman scattering on flexible PDMS sheets. Nanotechnology, 2016, 27, 315301.	1.3	12
69	Design of optical metamaterial mirror with metallic nanoparticles for floating-gate graphene optoelectronic devices. Optics Express, 2015, 23, 21809.	1.7	11
70	Design of DNA Origami Diamond Photonic Crystals. ACS Applied Bio Materials, 2020, 3, 747-756.	2.3	11
71	Symmetry-breaking in double gyroid block copolymer films by non-affine distortion. Applied Materials Today, 2021, 23, 101006.	2.3	11
72	Photofluidic Near-Field Mapping of Electric-Field Resonance in Plasmonic Metasurface Assembled with Gold Nanoparticles. Journal of Physical Chemistry Letters, 2017, 8, 3745-3751.	2.1	10

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73	DNA Base Pair Stacking Crystallization of Gold Colloids. Langmuir, 2020, 36, 5118-5125.	1.6	10
74	Holography, Fourier Optics, and Beyond Photonic Crystals: Holographic Fabrications for Weyl Points, Bound States in the Continuum, and Exceptional Points. Advanced Photonics Research, 2021, 2, 2100061.	1.7	10
75	Generation of pretilt angles of liquid crystals on cinnamate-based photoalignment layer by a simple directional peel-off process. Optics Express, 2009, 17, 23565.	1.7	8
76	Poly(Îµ-caprolactone) diol functionalized with a cinnamoyl group and its UV-triggered in-plane alignment. Reactive and Functional Polymers, 2010, 70, 622-629.	2.0	8
77	Wafer-Scale Microwire Transistor Array Fabricated via Evaporative Assembly. ACS Applied Materials & Interfaces, 2016, 8, 15543-15550.	4.0	7
78	Optimizing protein V untranslated region sequence in M13 phage for increased production of single-stranded DNA for origami. Nucleic Acids Research, 2021, 49, 6596-6603.	6.5	7
79	Block copolymer gyroids for nanophotonics: significance of lattice transformations. Nanophotonics, 2022, 11, 2583-2615.	2.9	7
80	Improved shelf-life stability of holographic photopolymer containing monomer stabilizer. Optical Materials, 2013, 35, 547-552.	1.7	6
81	Uniaxial alignment of ZnO nanowires via light-induced directional migration of azopolymeric microspheres. Polymer, 2018, 138, 180-187.	1.8	6
82	Optical Reflection from Unforbidden Diffraction of Block Copolymer Templated Gyroid Films. ACS Macro Letters, 2021, 10, 1609-1615.	2.3	6
83	Nanoparticle-on-mirror cavity: a historical view across nanophotonics and nanochemistry. Journal of the Korean Physical Society, 2022, 81, 502-509.	0.3	6
84	Scalable synthesis of carbon-embedded ordered macroporous titania spheres with structural colors. Korean Journal of Chemical Engineering, 2018, 35, 2138-2144.	1.2	5
85	Efficient confinement of ultraviolet light into a self-assembled, dielectric colloidal monolayer on a flat aluminum film. Applied Physics Express, 2014, 7, 112002.	1.1	4
86	UV-driven in-plane rotation of a liquid crystal director in poly(vinyl cinnamate) films having microscale grooves. Optics Letters, 2010, 35, 3141.	1.7	2
87	Photofluidization: Directional Photofluidization Lithography: Micro/Nanostructural Evolution by Photofluidic Motions of Azobenzene Materials (Adv. Mater. 16/2012). Advanced Materials, 2012, 24, 2062-2062.	11.1	2
88	Metamaterials: Reversibly Stretchable and Tunable Terahertz Metamaterials with Wrinkled Layouts (Adv. Mater. 26/2012). Advanced Materials, 2012, 24, 3438-3438.	11.1	2
89	Twoâ€Terminal Graphene Oxide Devices for Electrical Modulation of Broadband Terahertz Waves. Advanced Optical Materials, 2016, 4, 548-554.	3.6	2
90	Microspheres: Microfluidic Generation of Monodisperse and Photoreconfigurable Microspheres for Floral Iridescence-Inspired Structural Colorization (Adv. Mater. 26/2016). Advanced Materials, 2016, 28, 5332-5332.	11.1	1

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91	Cellular Networks: A Plesiohedral Cellular Network of Graphene Bubbles for Ultralight, Strong, and Superelastic Materials (Adv. Mater. 45/2018). Advanced Materials, 2018, 30, 1870343.	11.1	1
92	Fundamental and Practical Limits of Achieving Artificial Magnetism and Effective Optical Medium by Using Self-Assembly of Metallic Colloidal Clusters. Macromolecular Research, 2018, 26, 1103-1107.	1.0	1
93	Diverse nanotextured surface fabricated by directional photofluidization lithography and their application for wettability control. , 2011, , .		0
94	Hierarchically tunable phtonic bandgaps by directional photofluidization. , 2011, , .		0
95	Photofluidization of Azopolymer: Monolithic, Hierarchical Surface Reliefs by Holographic Photofluidization of Azopolymer Arrays: Direct Visualization of Polymeric Flows (Adv. Funct. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlock	24	31
96	Photofluidic Nanotexturing: Deterministic Nanotexturing by Directional Photofluidization Lithography (Adv. Mater. 29/2011). Advanced Materials, 2011, 23, 3243-3243.	11.1	0
97	Gate-controlled active graphene metamaterials at terahertz frequencies. , 2012, , .		0
98	Wearable Devices: Light-Powered Healing of a Wearable Electrical Conductor (Adv. Funct. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	7.8	0
99	InGaAsP nanobeam light emitter integrated with Si waveguide via transfer printing. , 2015, , .		0
100	Heterogeneous three-dimensional assembly of metamaterials and metadevices by modular transfer printing. , 2015, , .		0
101	A printed nanobeam laser on silicon. , 2015, , .		0