

# Seungwoo Lee

## List of Publications by Year in descending order

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Version: 2024-02-01

101  
papers

3,950  
citations

126907

33  
h-index

128289

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. <i>Nature Materials</i> , 2012, 11, 936-941.	27.5	777
2	Directional Photofluidization Lithography: Micro/Nanostructural Evolution by Photofluidic Motions of Azobenzene Materials. <i>Advanced Materials</i> , 2012, 24, 2069-2103.	21.0	252
3	Programming Self-Assembly of DNA Origami Honeycomb Two-Dimensional Lattices and Plasmonic Metamaterials. <i>Journal of the American Chemical Society</i> , 2016, 138, 7733-7740.	13.7	172
4	Multibit MoS <sub>2</sub> Photoelectronic Memory with Ultrahigh Sensitivity. <i>Advanced Materials</i> , 2016, 28, 9196-9202.	21.0	145
5	Multifunctional Graphene Optoelectronic Devices Capable of Detecting and Storing Photonic Signals. <i>Nano Letters</i> , 2015, 15, 2542-2547.	9.1	110
6	Progress and Opportunities in Soft Photonics and Biologically Inspired Optics. <i>Advanced Materials</i> , 2018, 30, 1702669.	21.0	102
7	Reversibly Stretchable and Tunable Terahertz Metamaterials with Wrinkled Layouts. <i>Advanced Materials</i> , 2012, 24, 3491-3497.	21.0	87
8	Directional Photofluidization Lithography for Nanoarchitectures with Controlled Shapes and Sizes. <i>Nano Letters</i> , 2010, 10, 296-304.	9.1	72
9	Light-Powered Healing of a Wearable Electrical Conductor. <i>Advanced Functional Materials</i> , 2014, 24, 7273-7283.	14.9	71
10	Mechanically Robust Silver Nanowires Network for Triboelectric Nanogenerators. <i>Advanced Functional Materials</i> , 2016, 26, 7717-7724.	14.9	71
11	Colloidal Photonic Assemblies for Colorful Radiative Cooling. <i>Langmuir</i> , 2020, 36, 6589-6596.	3.5	70
12	3D Printed, Customizable, and Multifunctional Smart Electronic Eyeglasses for Wearable Healthcare Systems and Human-Machine Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 21424-21432.	8.0	68
13	Directional Superficial Photofluidization for Deterministic Shaping of Complex 3D Architectures. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 8209-8217.	8.0	63
14	High-Resolution Patterning of Various Large-Area, Highly Ordered Structural Motifs by Directional Photofluidization Lithography: Sub-30-nm Line, Ellipsoid, Rectangle, and Circle Arrays. <i>Advanced Functional Materials</i> , 2011, 21, 1770-1778.	14.9	58
15	Monolithic, Hierarchical Surface Reliefs by Holographic Photofluidization of Azopolymer Arrays: Direct Visualization of Polymeric Flows. <i>Advanced Functional Materials</i> , 2011, 21, 4412-4422.	14.9	58
16	Enhanced adhesion with pedestal-shaped elastomeric stamps for transfer printing. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	57
17	Neutral-Colored Transparent Crystalline Silicon Photovoltaics. <i>Joule</i> , 2020, 4, 235-246.	24.0	55
18	DNA Origami-Guided Assembly of the Roundest 60-100 nm Gold Nanospheres into Plasmonic Metamolecules. <i>Advanced Functional Materials</i> , 2018, 28, 1707309.	14.9	53

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19	Fabrication of the Funnel-Shaped Three-Dimensional Plasmonic Tip Arrays by Directional Photofluidization Lithography. <i>ACS Nano</i> , 2010, 4, 7175-7184.	14.6	52
20	Frank's Kasper Phases Identified in PDMS- <i>b</i> -PTFEA Copolymers with High Conformational Asymmetry. <i>Macromolecular Rapid Communications</i> , 2019, 40, e1900259.	3.9	51
21	Golf ball-shaped PLGA microparticles with internal pores fabricated by simple O/W emulsion. <i>Chemical Communications</i> , 2010, 46, 7433.	4.1	49
22	Multi-Level Micro/Nanotexturing by Three-Dimensionally Controlled Photofluidization and its Use in Plasmonic Applications. <i>Advanced Materials</i> , 2013, 25, 5490-5497.	21.0	47
23	Magnetic Plasmon Networks Programmed by Molecular Self-Assembly. <i>Advanced Materials</i> , 2019, 31, e1901364.	21.0	47
24	DNA Origami Guided Self-Assembly of Plasmonic Polymers with Robust Long-Range Plasmonic Resonance. <i>Nano Letters</i> , 2020, 20, 8926-8932.	9.1	47
25	Comparative Study of Plasmonic Resonances between the Roundest and Randomly Faceted Au Nanoparticles-on-Mirror Cavities. <i>ACS Photonics</i> , 2018, 5, 413-421.	6.6	42
26	Holographic diffraction gratings with enhanced sensitivity based on epoxy-resin photopolymers. <i>Optics Express</i> , 2007, 15, 1497.	3.4	41
27	Bioinspired Toolkit Based on Intermolecular Encoder toward Evolutionary 4D Chiral Plasmonic Materials. <i>Accounts of Chemical Research</i> , 2019, 52, 2768-2783.	15.6	41
28	Facile fabrication of close-packed microlens arrays using photoinduced surface relief structures as templates. <i>Optics Express</i> , 2007, 15, 14550.	3.4	40
29	Black phosphorus nonvolatile transistor memory. <i>Nanoscale</i> , 2016, 8, 9107-9112.	5.6	39
30	Limitations and Opportunities for Optical Metafluids To Achieve an Unnatural Refractive Index. <i>ACS Photonics</i> , 2017, 4, 2298-2311.	6.6	39
31	Antifreezing Gold Colloids. <i>Journal of the American Chemical Society</i> , 2019, 141, 18682-18693.	13.7	38
32	Deterministic Nanotexturing by Directional Photofluidization Lithography. <i>Advanced Materials</i> , 2011, 23, 3244-3250.	21.0	37
33	Heterogeneously Assembled Metamaterials and Metadevices via 3D Modular Transfer Printing. <i>Scientific Reports</i> , 2016, 6, 27621.	3.3	35
34	Exploiting Colloidal Metamaterials for Achieving Unnatural Optical Refractions. <i>Advanced Materials</i> , 2020, 32, e2001806.	21.0	35
35	Microfluidic Generation of Monodisperse and Photoreconfigurable Microspheres for Floral Iridescence-Inspired Structural Colorization. <i>Advanced Materials</i> , 2016, 28, 5268-5275.	21.0	34
36	Orientation Approach to Directional Photodeformations in Glassy Side-Chain Azopolymers. <i>Journal of Physical Chemistry B</i> , 2019, 123, 3337-3347.	2.6	34

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37	Complex multicomponent patterns rendered on a 3D DNA-barrel pegboard. <i>Nature Communications</i> , 2020, 11, 5768.	12.8	33
38	Colloidal superlattices for unnaturally high-index metamaterials at broadband optical frequencies. <i>Optics Express</i> , 2015, 23, 28170.	3.4	32
39	Detailed balance analysis of plasmonic metamaterial perovskite solar cells. <i>Optics Express</i> , 2019, 27, A1241.	3.4	31
40	Light-Directed Soft Mass Migration for Micro/Nanophotonics. <i>Advanced Optical Materials</i> , 2019, 7, 1900074.	7.3	31
41	Unusual surface reliefs from photoinduced creeping and aggregation behavior of azopolymer. <i>Applied Physics Letters</i> , 2008, 93, .	3.3	29
42	Control of liquid crystal pretilt angles by using organic/inorganic hybrid interpenetrating networks. <i>Optics Express</i> , 2009, 17, 16603.	3.4	29
43	Ultrastable-Stealth Large Gold Nanoparticles with DNA Directed Biological Functionality. <i>Langmuir</i> , 2015, 31, 13773-13782.	3.5	29
44	Experimental approach to the fundamental limit of the extinction coefficients of ultra-smooth and highly spherical gold nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 20786-20794.	2.8	29
45	Deterministic assembly of metamolecules by atomic force microscope-enabled manipulation of ultra-smooth, super-spherical gold nanoparticles. <i>Optics Express</i> , 2015, 23, 12766.	3.4	29
46	Soft Plasmonic Assemblies Exhibiting Unnaturally High Refractive Index. <i>Nano Letters</i> , 2020, 20, 4768-4774.	9.1	29
47	Petal-Inspired Diffractive Grating on a Wavy Surface: Deterministic Fabrications and Applications to Colorizations and LED Devices. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 9935-9944.	8.0	28
48	Vertically Oriented, Three-Dimensionally Tapered Deep-Subwavelength Metallic Nanohole Arrays Developed by Photofluidization Lithography. <i>Advanced Materials</i> , 2014, 26, 7521-7528.	21.0	27
49	A Plesiohedral Cellular Network of Graphene Bubbles for Ultralight, Strong, and Superelastic Materials. <i>Advanced Materials</i> , 2018, 30, e1802997.	21.0	27
50	Imbricate Scales as a Design Construct for Microsystem Technologies. <i>Small</i> , 2012, 8, 901-906.	10.0	24
51	Light-transformable and -healable triboelectric nanogenerators. <i>Nano Energy</i> , 2017, 38, 412-418.	16.0	24
52	Assembly of 3D-plasmonic clusters by 2D-AFM nanomanipulation of highly uniform and smooth gold nanospheres. <i>Scientific Reports</i> , 2017, 7, 6045.	3.3	23
53	Holographic photopolymers of organic/inorganic hybrid interpenetrating networks for reduced volume shrinkage. <i>Journal of Materials Chemistry</i> , 2009, 19, 1105.	6.7	21
54	Nature-Inspired Construction of Two-Dimensionally Self-Assembled Peptide on Pristine Graphene. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 3734-3739.	4.6	21

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55	Scalable, Highly Uniform, and Robust Colloidal Mie Resonators for All-Dielectric Soft Meta-Optics. <i>Advanced Optical Materials</i> , 2019, 7, 1801167.	7.3	19
56	A Field Guide to Azopolymeric Optical Fourier Surfaces and Augmented Reality. <i>Advanced Functional Materials</i> , 2021, 31, 2104105.	14.9	19
57	Multifunctional photoreactive inorganic cages for three-dimensional holographic data storage. <i>Optics Letters</i> , 2009, 34, 3095.	3.3	18
58	Light-Induced Surface Patterning of Silica. <i>ACS Nano</i> , 2015, 9, 9837-9848.	14.6	17
59	On-Demand Doping of Graphene by Stamping with a Chemically Functionalized Rubber Lens. <i>ACS Nano</i> , 2015, 9, 4354-4361.	14.6	16
60	Using highly uniform and smooth selenium colloids as low-loss magnetodielectric building blocks of optical metafluids. <i>Optics Express</i> , 2017, 25, 13822.	3.4	16
61	Gold nanoparticle-embedded DNA thin films for ultraviolet photodetectors. <i>Sensors and Actuators B: Chemical</i> , 2018, 275, 137-144.	7.8	16
62	Double Gyroids for Frequency-Isolated Weyl Points in the Visible Regime and Interference Lithographic Design. <i>ACS Photonics</i> , 2020, 7, 1577-1585.	6.6	16
63	Simple approach for enhancement of light harvesting efficiency of dye-sensitized solar cells by polymeric mirror. <i>Optics Express</i> , 2010, 18, A522.	3.4	15
64	A printed nanobeam laser on a SiO <sub>2</sub> /Si substrate for low-threshold continuous-wave operation. <i>Optics Express</i> , 2014, 22, 12115.	3.4	15
65	Dual-colour generation from layered colloidal photonic crystals harnessing "core hatching" in double emulsions. <i>Journal of Materials Chemistry C</i> , 2019, 7, 6924-6931.	5.5	14
66	Balanced Interfacial Interactions for Fluoroacrylic Block Copolymer Films and Fast Electric Field Directed Assembly. <i>Chemistry of Materials</i> , 2020, 32, 9633-9641.	6.7	14
67	Photo-Transformable Gratings for Augmented Reality. <i>Advanced Functional Materials</i> , 2021, 31, 2100839.	14.9	14
68	Sub-100 nm gold nanohole-enhanced Raman scattering on flexible PDMS sheets. <i>Nanotechnology</i> , 2016, 27, 315301.	2.6	12
69	Design of optical metamaterial mirror with metallic nanoparticles for floating-gate graphene optoelectronic devices. <i>Optics Express</i> , 2015, 23, 21809.	3.4	11
70	Design of DNA Origami Diamond Photonic Crystals. <i>ACS Applied Bio Materials</i> , 2020, 3, 747-756.	4.6	11
71	Symmetry-breaking in double gyroid block copolymer films by non-affine distortion. <i>Applied Materials Today</i> , 2021, 23, 101006.	4.3	11
72	Photofluidic Near-Field Mapping of Electric-Field Resonance in Plasmonic Metasurface Assembled with Gold Nanoparticles. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 3745-3751.	4.6	10

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73	DNA Base Pair Stacking Crystallization of Gold Colloids. <i>Langmuir</i> , 2020, 36, 5118-5125.	3.5	10
74	Holography, Fourier Optics, and Beyond Photonic Crystals: Holographic Fabrications for Weyl Points, Bound States in the Continuum, and Exceptional Points. <i>Advanced Photonics Research</i> , 2021, 2, 2100061.	3.6	10
75	Generation of pretilt angles of liquid crystals on cinnamate-based photoalignment layer by a simple directional peel-off process. <i>Optics Express</i> , 2009, 17, 23565.	3.4	8
76	Poly( $\mu$ -caprolactone) diol functionalized with a cinnamoyl group and its UV-triggered in-plane alignment. <i>Reactive and Functional Polymers</i> , 2010, 70, 622-629.	4.1	8
77	Wafer-Scale Microwire Transistor Array Fabricated via Evaporative Assembly. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 15543-15550.	8.0	7
78	Optimizing protein V untranslated region sequence in M13 phage for increased production of single-stranded DNA for origami. <i>Nucleic Acids Research</i> , 2021, 49, 6596-6603.	14.5	7
79	Block copolymer gyroids for nanophotonics: significance of lattice transformations. <i>Nanophotonics</i> , 2022, 11, 2583-2615.	6.0	7
80	Improved shelf-life stability of holographic photopolymer containing monomer stabilizer. <i>Optical Materials</i> , 2013, 35, 547-552.	3.6	6
81	Uniaxial alignment of ZnO nanowires via light-induced directional migration of azopolymeric microspheres. <i>Polymer</i> , 2018, 138, 180-187.	3.8	6
82	Optical Reflection from Unforbidden Diffraction of Block Copolymer Templated Gyroid Films. <i>ACS Macro Letters</i> , 2021, 10, 1609-1615.	4.8	6
83	Nanoparticle-on-mirror cavity: a historical view across nanophotonics and nanochemistry. <i>Journal of the Korean Physical Society</i> , 2022, 81, 502-509.	0.7	6
84	Scalable synthesis of carbon-embedded ordered macroporous titania spheres with structural colors. <i>Korean Journal of Chemical Engineering</i> , 2018, 35, 2138-2144.	2.7	5
85	Efficient confinement of ultraviolet light into a self-assembled, dielectric colloidal monolayer on a flat aluminum film. <i>Applied Physics Express</i> , 2014, 7, 112002.	2.4	4
86	UV-driven in-plane rotation of a liquid crystal director in poly(vinyl cinnamate) films having microscale grooves. <i>Optics Letters</i> , 2010, 35, 3141.	3.3	2
87	Photofluidization: Directional Photofluidization Lithography: Micro/Nanostructural Evolution by Photofluidic Motions of Azobenzene Materials ( <i>Adv. Mater.</i> 16/2012). <i>Advanced Materials</i> , 2012, 24, 2062-2062.	21.0	2
88	Metamaterials: Reversibly Stretchable and Tunable Terahertz Metamaterials with Wrinkled Layouts ( <i>Adv. Mater.</i> 26/2012). <i>Advanced Materials</i> , 2012, 24, 3438-3438.	21.0	2
89	Two-terminal Graphene Oxide Devices for Electrical Modulation of Broadband Terahertz Waves. <i>Advanced Optical Materials</i> , 2016, 4, 548-554.	7.3	2
90	Microspheres: Microfluidic Generation of Monodisperse and Photoreconfigurable Microspheres for Floral Iridescence-Inspired Structural Colorization ( <i>Adv. Mater.</i> 26/2016). <i>Advanced Materials</i> , 2016, 28, 5332-5332.	21.0	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.	21.0	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.	2.4	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	14.9	0
96	Photofluidic Nanotexturing: Deterministic Nanotexturing by Directional Photofluidization Lithography (Adv. Mater. 29/2011). Advanced Materials, 2011, 23, 3243-3243.	21.0	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	14.9	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