Li Gao

List of Publications by Year
in descending order

71 papers	6,668 citations	117625 34 h-index	95266 68 g-index
74 all docs	74 docs citations	74 times ranked	9600 citing authors

#	Article	IF	Citations
1	Self-assembly of highly efficient, broadband plasmonic absorbers for solar steam generation. Science Advances, 2016, 2, e1501227.	10.3	1,025
2	Training Deep Neural Networks for the Inverse Design of Nanophotonic Structures. ACS Photonics, 2018, 5, 1365-1369.	6.6	657
3	Treeâ€Inspired Design for Highâ€Efficiency Water Extraction. Advanced Materials, 2017, 29, 1704107.	21.0	494
4	Producing air-stable monolayers of phosphorene and their defect engineering. Nature Communications, 2016, 7, 10450.	12.8	443
5	A polydimethylsiloxane-coated metal structure for all-day radiative cooling. Nature Sustainability, 2019, 2, 718-724.	23.7	379
6	Limitations of nonlinear optical isolators due to dynamic reciprocity. Nature Photonics, 2015, 9, 388-392.	31.4	372
7	Optical tuning of exciton and trion emissions in monolayer phosphorene. Light: Science and Applications, 2015, 4, e312-e312.	16.6	276
8	Epidermal photonic devices for quantitative imaging of temperature and thermal transport characteristics of the skin. Nature Communications, 2014, 5, 4938.	12.8	227
9	Adaptive optoelectronic camouflage systems with designs inspired by cephalopod skins. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12998-13003.	7.1	197
10	Stretchable elastic synaptic transistors for neurologically integrated soft engineering systems. Science Advances, 2019, 5, eaax4961.	10.3	191
11	Single-shot on-chip spectral sensors based on photonic crystal slabs. Nature Communications, 2019, 10, 1020.	12.8	190
12	Extreme Light Management in Mesoporous Wood Cellulose Paper for Optoelectronics. ACS Nano, 2016, 10, 1369-1377.	14.6	161
13	Epitaxial Ultrathin Organic Crystals on Graphene for Highâ€Efficiency Phototransistors. Advanced Materials, 2016, 28, 5200-5205.	21.0	134
14	Graphene Hybrid Structures for Integrated and Flexible Optoelectronics. Advanced Materials, 2020, 32, e1902039.	21.0	127
15	Atomically thin optical lenses and gratings. Light: Science and Applications, 2016, 5, e16046-e16046.	16.6	107
16	A Bidirectional Deep Neural Network for Accurate Silicon Color Design. Advanced Materials, 2019, 31, e1905467.	21.0	98
17	Angle-selective perfect absorption with two-dimensional materials. Light: Science and Applications, 2016, 5, e16052-e16052.	16.6	94
18	Extraordinarily Bound Quasi-One-Dimensional Trions in Two-Dimensional Phosphorene Atomic Semiconductors. ACS Nano, 2016, 10, 2046-2053.	14.6	92

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19	Optics and Nonlinear Buckling Mechanics in Large-Area, Highly Stretchable Arrays of Plasmonic Nanostructures. ACS Nano, 2015, 9, 5968-5975.	14.6	87
20	Vapor condensation with daytime radiative cooling. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	86
21	Large-Scale Spinning of Silver Nanofibers as Flexible and Reliable Conductors. Nano Letters, 2016, 16, 5846-5851.	9.1	81
22	Efficient and Layerâ€Dependent Exciton Pumping across Atomically Thin Organicâ€“Inorganic Typeâ€I Heterostructures. Advanced Materials, 2018, 30, e1803986.	21.0	79
23	Single-crystalline germanium nanomembrane photodetectors on foreign nanocavities. Science Advances, 2017, 3, e1602783.	10.3	76
24	Silicon single-photon avalanche diodes with nano-structured light trapping. Nature Communications, 2017, 8, 628.	12.8	69
25	Subwavelength angle-sensing photodetectors inspired by directional hearing in small animals. Nature Nanotechnology, 2018, 13, 1143-1147.	31.5	66
26	Deep neural network for plasmonic sensor modeling. Optical Materials Express, 2019, 9, 3857.	3.0	59
27	Spectral analysis based on compressive sensing in nanophotonic structures. Optics Express, 2014, 22, 25608.	3.4	54
28	Nanoimprinting Techniques for Large-Area Three-Dimensional Negative Index Metamaterials with Operation in the Visible and Telecom Bands. ACS Nano, 2014, 8, 5535-5542.	14.6	51
29	A flexible and transparent ceramic nanobelt network for soft electronics. NPG Asia Materials, 2014, 6, e86-e86.	7.9	50
30	Enhanced Performance of Ge Photodiodes via Monolithic Antireflection Texturing and Î±-Ge Self-Passivation by Inverse Metal-Assisted Chemical Etching. ACS Nano, 2018, 12, 6748-6755.	14.6	50
31	Inverse Design of Metasurfaces Based on Coupled-Mode Theory and Adjoint Optimization. ACS Photonics, 2021, 8, 2265-2273.	6.6	45
32	Efficient Midâ€Infrared Light Confinement within Subâ€5â€nm Gaps for Extreme Field Enhancement. Advanced Optical Materials, 2017, 5, 1700223.	7.3	39
33	Neural network enabled metasurface design for phase manipulation. Optics Express, 2021, 29, 2521.	3.4	39
34	Compact CMOS spectral sensor for the visible spectrum. Photonics Research, 2019, 7, 961.	7.0	35
35	Extraordinarily Large Optical Cross Section for Localized Single Nanoresonator. Physical Review Letters, 2015, 115, 023903.	7.8	34
36	Electromagnetic scattering laws in Weyl systems. Nature Communications, 2017, 8, 1388.	12.8	34

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37	Computational spectrometers enabled by nanophotonics and deep learning. Nanophotonics, 2022, 11, 2507-2529.	6.0	33
38	Analog of superradiant emission in thermal emitters. Physical Review B, 2015, 92, .	3.2	23
39	Materials Selections and Growth Conditions for Largeâ€Area, Multilayered, Visible Negative Index Metamaterials Formed by Nanotransfer Printing. Advanced Optical Materials, 2014, 2, 256-261.	7.3	22
40	Soft and transient magnesium plasmonics for environmental and biomedical sensing. Nano Research, 2018, 11, 4390-4400.	10.4	21
41	Nonreciprocal Thermal Emitters Using Metasurfaces with Multiple Diffraction Channels. Physical Review Applied, 2021, 16, .	3.8	21
42	Analysis of microstructure evolution and precise solid fraction evaluation of A356 aluminum alloy during partial re-melting by a color etching method. Journal of Materials Science, 2012, 47, 6553-6564.	3.7	20
43	Spectrally selective solar absorber with sharp and temperature dependent cut-off based on semiconductor nanowire arrays. Applied Physics Letters, 2017, 110, 201108.	3.3	20
44	Self-Focused Thermal Emission and Holography Realized by Mesoscopic Thermal Emitters. ACS Photonics, 2021, 8, 497-504.	6.6	18
45	Extended Range of Dipole-Dipole Interactions in Periodically Structured Photonic Media. Physical Review Letters, 2019, 123, 173901.	7.8	17
46	Real-time deep learning design tool for far-field radiation profile. Photonics Research, 2021, 9, B104.	7.0	16
47	Deep neural network for designing near- and far-field properties in plasmonic antennas. Optical Materials Express, 2021, 11, 1907.	3.0	15
48	Enhancing radiative energy transfer through thermal extraction. Nanophotonics, 2016, 5, 22-30.	6.0	13
49	Using active gain to maximize light absorption. Physical Review B, 2017, 96, .	3.2	13
50	Angle-based wavefront sensing enabled by the near fields of flat optics. Nature Communications, 2021, 12, 6002.	12.8	13
51	Resonant cavity germanium photodetector via stacked single-crystalline nanomembranes. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	1.2	12
52	High-sensitivity silicon ultraviolet p+-i-n avalanche photodiode using ultra-shallow boron gradient doping. Applied Physics Letters, 2017, 111, .	3.3	12
53	Direct Object Recognition Without Line-Of-Sight Using Optical Coherence. , 2019, , .		10
54	Comparison of Different Neural Network Architectures for Plasmonic Inverse Design. ACS Omega, 2021, 6, 23076-23082.	3.5	10

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55	Enhancing the optical cross section of quantum antenna. Physical Review A, 2017, 95, .	2.5	8
56	Design and Fabrication of Blue LED-Integrated Graphene Electrodes for Neural Stimulation and Signal Recording. ACS Applied Electronic Materials, 2021, 3, 4308-4316.	4.3	8
57	Deep Neural Networks: A Bidirectional Deep Neural Network for Accurate Silicon Color Design (Adv.) Tj ETQq1 1 0.784314 rgBT /Over	21.0	6
58	Visualization of solute distributions in dendritic and spheroidized Al grains characterized by both color etching method and electron probe microanalysis. Journal of Materials Science, 2014, 49, 1286-1296.	3.7	5
59	Three-Dimensional Printed Planar Polymer Photonic Topological Insulator Waveguides and Their Robustness to Lattice Defects. ACS Photonics, 2022, 9, 1793-1802.	6.6	5
60	Resonance for Analog Recurrent Neural Network. ACS Photonics, 2022, 9, 1647-1654.	6.6	5
61	Microstructure Analysis of Quenched Semi-Solid A356 Aluminum Alloy Slurry by Using Weckâ€™s Reagent. Materials Transactions, 2020, 61, 1077-1083.	1.2	4
62	Compounding a High-Permittivity Thermoplastic Material and Its Applicability in Manufacturing of Microwave Photonic Crystals. Materials, 2022, 15, 2492.	2.9	4
63	Artificial transpiration: an efficient means of waste-water treatment. National Science Review, 2018, 5, 120-121.	9.5	3
64	Negative Index Materials: Materials Selections and Growth Conditions for Large-Area, Multilayered, Visible Negative Index Metamaterials Formed by Nanotransfer Printing (Advanced Optical Materials) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	7.3	2
65	Analyses of postbuckling in stretchable arrays of nanostructures for wide-band tunable plasmonics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150632.	2.1	2
66	Strong and long-range radiative interaction between resonant transitions. Physical Review Research, 2022, 4, .	3.6	2
67	SAFT: Shotgun advancing front technique for massively parallel mesh generation on graphics processing unit. International Journal for Numerical Methods in Engineering, 2022, 123, 4391-4406.	2.8	2
68	Recent advances on non-reciprocal light manipulation from dynamic modulation. , 2015, , .		0
69	A heated junction. Nature Nanotechnology, 2017, 12, 723-724.	31.5	0
70	Nano-indented Ge surfaces by metal-assisted chemical etching (MacEtch) and its application for optoelectronic devices. , 2017, , .		0
71	Nonlinear Nanophotonic Media for Artificial Neural Computing. , 2019, , .		0